CERRITOS COLLEGE

GENERAL CATALOG AND ANNOUNCEMENT OF COURSES ACADEMIC YEAR 2003-2004

CERRITOS COLLEGE
11110 ALONDRA BOULEVARD,
NORWALK, CALIFORNIA 90650
(562) 860-2451

http://www.cerritos.edu

CERRITOS COLLEGE
A PUBLIC COMMUNITY COLLEGE
ESTABLISHED 1955

Serving the residents of Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada and Norwalk.

ACCREDITED BY:

Accrediting Commission for Community and Junior Colleges of the
Western Association of Schools and Colleges
Mendocino Avenue, Santa Rosa, CA 95403
(707) 569-9177

APPROVED BY:

California Community College Board of Governors
Immigration and Naturalization Service of the
U.S. Department of Justice
State Department of Education for Veterans Benefits
United States Department of Education

A MEMBER OF:

Academic Senate for California Community Colleges
Association of Community College Trustees
California Community College Trustees
California Association of Community Colleges
Cerritos Area Trustees and Administrators Association
College Association for Public Events and Services
School Employers Association
Southern California Consortium for Community College Television
Western Alliance of Arts Administrators

This information is available on the Internet at http://www.cerritos.edu

"In accordance with the Americans with Disabilities Act, this information is available in an alternate format by calling 562/860-2451, extension 2333."

OPEN COURSES

It is the policy of the Cerritos Community College District that, unless specifically exempted by statute, every course, course section or class, the attendance of which is to be reported for state aid, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to Title 5 of the California Administrative Code, commencing with Section 51006.

All announcements herein are subject to revision. Changes may be made subsequent to the date of publication.

TABLE OF CONTENTS

CERRITOS COLLEGE 1
College Calendar. 3
Administration. 5
History of Cerritos College 6
Philosophy and Objectives 8
ACADEMIC INFORMATION 9
Admission to the College 10
Expenses 11
Matriculation 13
Registration Information 16
Scholars' Honors Program 24
Learning Communities Program. 25
Scholarship Regulations 26
Attendance and Withdrawal. 26
Student Services. 31
Honors and Awards 40
Student Financial Aid 41
Graduation Requirements. 43
Transfer Requirements 47
Community, Industry & Technology Education 54
Cerritos College Foundation. 55
REQUIREMENTS FOR MAJORS 56
ANNOUNCEMENT OF COURSES. 137
FACULTY/EDUCATIONAL ADMINISTRATORS 304
CLASSIFIED MANAGERS 314
FACULTY/EMERITI 315
CLASSIFIED EMPLOYEES 322
INDEX 325

2003-2004 ACADEMIC CALENDAR*

FALL SEMESTER 2003

Instruction Begins . . . . . August 18, 2003
Final Examinations . . . . . December 13-19, 2003
Fall Semester Ends . . . . . December 19, 2003

SPRING SEMESTER 2004

Instruction Begins . . . . . January 12, 2004
Final Examinations . . . . . May 15-21, 2004
Spring Semester Ends . . . . . May 21, 2004
Commencement . . . . . May 15, 2004

HOLIDAYS (THE COLLEGE WILL BE CLOSED)

Independence Day . . . . . July 4, 2003
Labor Day . . . . . September 1, 2003
Veterans Day Observance . . . . . November 11, 2003
Thanksgiving Holiday . . . . . November 27-29,2003
Christmas Eve . . . . . December 24, 2003
Christmas Day . . . . . December 25, 2003
New Year's Eve . . . . . December 31, 2003
New Year's Day . . . . . January 1, 2004
Dr. Martin Luther King, Jr.'s Birthday Observance . . January 19, 2004
Abraham Lincoln's Birthday Observance . . . . . February 13, 2004
George Washington's Birthday Observance . . . . . February 16, 2004
Good Friday . . . . . April 9, 2004
Memorial Day . . . . . May 31, 2004

RECESS

Semester Break . . . . . December 22, 2003-January 9, 2004
Spring Recess . . . . . April 5-11, 2004

**This calendar is subject to change. The Schedule of Classes contains specific dates, times, procedures, and appointment information*

WHOM TO CONTACT
Telephone: (562) 860-2451

GENERAL OFFICES	EXT
President/Superintendent	2204
Academic Affairs	2227
Accounts Payable/Receivable	2261
Admissions and Records	2211
Bookstore	2462
Business Services (Information)	2241
Community, Industry, Technology Education	2482
Adult Ed/Diversity Programs	2491
Applied Technology Education Center (ATEC)	2511
Citizenship Education	5098
Community Education	2521
Economic Development	2511
Emeritus Education	2493
Community Relations	2285
Computer Services	2166
Counseling and Guidance	2231
Development	2191
Facilities	2300
Fiscal Services	2261
Human Resources	2284
Information Technology and Development	2215
Instructional Media Services	2438
Library	2430
Multi-Media Production	2439
Payroll	2272/2273/2274
Publications	2289
Public Relations	2285
Purchasing	2243
Research	2193
Student Services	2236

DIVISIONS	EXT
Business Education	2715
Counseling	2231
Fine Arts/Communications	2600
Health Occupations	2550
HPER/Athletics	2859
Humanities/Social Sciences	2752
Liberal Arts	2858
Library & Learning Resource Center	2430
Science/Engineering/Mathematics	2660
Technology	2900
Technology Training and Distance Education	2797

AREAS OF INTEREST	EXT
Academic Probation	2231
Academic Support Center	2407
Administration of Justice	2777
Art Gallery	2612
Athletic Department	2864
Athletic Training Center	2882
Fitness Lab	2883
Auto Collision and Repair	2939
Auto Maintenance/Repair	2930
Box Office (Burnight Center)	(562) 467-5058
CalWORKs	2593
Career Center	2359
Career Services Center	2356
Child Development Center	2583
College Activity Calendar (Civic Center)	2532
Communication Center/Mailroom	2200
Computer Assisted Instruction Lab (CAI)	2185
Cosmetology Department	2950
Culinary Arts	2456

AREAS OF INTEREST	EXT
Disabled Student Programs, Director	2334
Central Intake (Information)	2333
Resource Center	2336
Instructional Support Center	2346
Speech, Language and Hearing	2351
Hi-Tech Micro-Computer Center	2349
Distance Education	2837
Engineering Design Technology (CAD Lab)	2906
Drops and Adds	2211
Electronics	2916
EMERGENCY	3000
EOPS Office	2398
Fees (Students)	2101
Financial Aid	2397
Foster & Kinship Care Education	2578
Foundation	2526
Independent Study Center	2442
Innovation Center	2797
International Student Counselor/Advisor	2135
International Student Office	2133
Coordinator	2151
Job Information Hotline	(562) 467-5042
Job Placement (Students)	2366
Job Training (JTPA)	2400
Journalism	2617
Language Center/Language Lab	2854
Lost and Found	2325
Machine Tool Technology (MTT)	2925
Math Learning Center	2659
Music Department	2629
Parking/Ride Share	2326
Photography Lab	2620
Physical Education Department	2859
Plastics and Composites (PMT)	2927
Police Department	2325
Radio Station, WPMD 1700AM	2626
Re-entry Resource Center	2362
Refunds (Students)	2259/2271
Reading Center	2856
Scholars Honors Program	2771/2728
School Relations	2130
Speech Department	2844
Sports Information	2896
Staff Development	2796
Student Activities Office	
Clubs and Organizations	2473
Judicial Affairs	2471
Student Activities Center	2479
Student Body President	2477
Student Body Vice President	2478
Student Government	2475
Student I.D. Center	2480
Student Health and Wellness Center	2321
Talon Marks (Student Newspaper)	2617
Teleconference Center	2976
Testing Assessment	2364/2599
Theatre Arts Department	2638
Transfer Center	2154
Tutoring/Learning Assistance Program	2404
Veterans Affairs	2104
Weight Training Room	2885
Welding	2924
Woodworking Manufacturing	2926
Writing Center	2855

BOARD OF TRUSTEES

President. . . . . .Mr. John Moore
Vice President . . . . . .Mr. Bob Arthur
Secretary . . . . . Dr. Ted Edmiston
Member . . . . . .Mrs. Cheryl Epple
Member . . . . . .Mr. Eric Gutiérrez
Member . . . . . .Mrs. Mary Loya
Member . . . . . .Mr. Bob B. Verderber
Student Member . . . . . .Mr. James Towns

ADMINISTRATION

Interim President/Superintendent . . . . . Mr. John Grindel
Interim Vice President of Academic Affairs/Provost. . Mr. John S. Boyle
Vice President of Business Services/
Assistant Superintendent . . . . . Mr. Dennis Chuning
Vice President of Student Services/
Assistant Superintendent. . . . . Dr. Erlinda Martinez
Dean of Academic Affairs . . . . . Dr. Adolph Johnson, Jr.
Dean of the Library and Learning
Resource Center . . . . . Mr. John J. McGinnis
Executive Dean of Community, Industry and
Technology Education. . . . . Mr. Nick Kremer
Executive Dean of Information Technology and
Development . . . . . .
Executive Director of Foundation . . . . . Mr. Steven Richardson
Administrative Dean of Technology Training/
Distance Education . . . . . Mr. M. L. Bettino
Associate Dean of Student Activities . . . . . .
Instructional Dean/Business Education . . . . . Mr. William C. Christie
Instructional Dean/Health Occupations. . . . . Ms. Jenine Nolan
Instructional Dean/Humanities and
Social Sciences . . . . . Ms. Francine DeFrance
Instructional Dean/Fine Arts/Communications . . . Dr. Barry Russell
Instructional Dean/Liberal Arts . . . . . .
Instructional Dean/HPER/Athletics. . . . . Dr. Daniel Smith
Instructional Dean/Science, Engineering
and Mathematics . . . . . Mr. Norman Fujimoto
Instructional Dean/Technology. . . . . Dr. Randy W. Peebles
Director of Foster/Kinship
Education Programs. . . . . Ms. Patricia Robbins-Anema
Title V Project Director. . . . . Ms. Graciela Vasquez

COMMUNITY EDUCATION

Director of Community Education . . . . . Ms. Laura Franklin
Director of Adult Education/Diversity Programs . . . . . .

COMPUTER SERVICES

Director of Computer Services. . . . . Ms. Lee Krichmar

FACILITIES SERVICES

Facilities Manager. . . . . Mr. Wayne Nunnery
Director of Physical Plant . . . . . Mr. Mike Sebak

FISCAL SERVICES

Director of Fiscal Services. . . . . Mrs. Lola Rizkallah
Director of Purchasing . . . . . Ms. Donna Jones
Accounting Manager . . . . . Ms. Ramona Payne
Budget Manager. . . . . Ms. JoAnne Sims
Payroll Manager. . . . . .

HUMAN RESOURCES

Director of Human Resources.. . . . . .Mr. Mark E. Fisher
Assistant Director of Human Resources.. . . . . .Mr. Dan O'Rourke
Manager of Employment Services/
Faculty & Staff Diversity Officer… . . . . . Ms. Cynthia Convey

STUDENT SERVICES

Administrative Dean of Admissions
and Records. . . . . Ms. Stephanie Murguia
Administrative Dean of Counseling . . . . . Mrs. Carol Patrick
Assistant Dean Career Services. . . . . Ms. Theresa Lopez
Chief of Campus Police. . . . . Mr. Marvin Engquist
Director of Disabled Student Program
and Services . . . . . Dr. Robert Hughlett
Director of Student Affairs. . . . . Dr. Phil Rodriguez
Director of Marketing/Public Relations . . . . . Mr. Chi-Chung Keung
Coordinator of Health and Wellness. . . . . Mr. Charles Gale
Coordinator of International Students Program . . . Ms. Danita Kurtz
Coordinator of Judicial Affairs . . . . . Mr. Pat Callahan
Coordinator of Student Activities. . . . . Mr. Dean Ackland
CalWorks Coordinator . . . . . Ms. Renée Chomiak
Web Administrator . . . . . Mr. Taylor Bowman

FACULTY SENATE

Faculty Senate President . . . . . Mr. Robert Chester

CERRITOS COLLEGE FACULTY FEDERATION – AFT

CCFF-AFT President . . . . . Mr. David Fabish

CALIFORNIA SCHOOL EMPLOYEES ASSOCIATION

CSEA President . . . . . .Mr. Tom Chavez

History

Cerritos College was established on June 10, 1955 when citizens of the Bellflower, Norwalk, Artesia, Carmenita, and Bloomfield elementary districts voted four to one in favor of forming a junior college district. On September 27, 1955, a ballot measure calling for a six-million-dollar bond issue with which to build the junior college passed, again by a four-to-one margin. Title to the proposed college site was acquired on December 5, 1956, and the college Board turned its attention to securing favorable zoning so that construction could begin.

Credit for the birth of Cerritos College lies chiefly with Dr. Ralph Burnight, first president of the institution. Superintendent of the Excelsior Union High School District for 27 years before the College was born, Burnight had seen the need for the extension of educational opportunities offered at his high school and fought the State Board of Education for the establishment of a college in 1953, when the State Board indicated it was doubtful that the District could attract a minimum enrollment of 400 students.

Dr. Burnight, however, was convinced that the area would continue to grow,and three years later the Board of Trustees-Leslie Nottingham, Walter Van Alstine, Dale Donnell, Al Sommer, and Arthur Kulzer-authorized the College to offer instruction. On September 11, 1956, in classrooms rented from the Excelsior High School District, 197 students enrolled in classes and made the college a reality. That first semester, ten certified teachers offered 15 subjects, with Dr. Burnight at the helm. Beginning with the 1957-58 school year, the College operated out of Artesia High School, awaiting the completion of the new campus.

By the end of 1959, eight buildings (Field House, 3-25-58; Business Education, Lecture Hall, Science, Shower and Locker, 10-6-59; Liberal Arts,Technology, Electronics, 9-15-59) had been completed on campus, and funds were made available to provide the remaining facilities to accommodate a student body of 3,500 students.

By 1961 the campus was beginning to look like a college with the completion of four more buildings (Library and Gymnasium, 7-1-61; Metal Trades Shop Building, 7-17-61; Student Center, 3-8-60) and an enrollment of 4,000 students. The campus included 95 acres in 1964, and its 15 permanent buildings brought the value of the College to 16 million dollars; it now served a District with an assessed valuation of 271 million dollars.

Effective July 1, 1965, the district included the ABC Unified School District, the Bellflower Unified School District, the Downey Unified School District, and the Norwalk-La Mirada Unified School District. District population was 400,000 and the assessed valuation had jumped to more than $500,000,000. This would be the year that, beyond the bravest expectations of everyone connected with Cerritos College, enrollment would exceed 10,000 students.

The College acquired the "South 40" acres by 1966, enlarging the campus to 135 acres. The purchase proved to be an excellent investment by the Board; land values in the College's district have since skyrocketed. The property today supports the Health Sciences Building, the largest parking lot on campus, the Auto Technology Building, and the Community Education Center.

The campus grew to 18 buildings by the 1968-69 school year, with a student enrollment of more than 11,000. The District, too, was growing and now included more than half a million people and an assessed valuation of $543,000,000. The 18 buildings were complemented by a weight lifting facility in 1971 and a Student Activities/Bookstore complex in 1974.

With the campus thus complete for the time being, the adminis-

tration and Board of Trustees turned to building the excellence of the academic program, which had a strong foundation. Innovation in satellite courses, televised instruction, open entry/exit classes, and the move into audio-visual instruction marked the coming decade.

In 1972 the student population reached 17,000. The next year, 18,000 students attended classes, and the assessed valuation of the district had grown to more than $800,000,000.

The early 1970's were marked by spiraling inflation and tighter money; yet the College was able to finance a new, modern Bookstore (3-19-74), the Health Sciences Building (2-1-78), and the Auto Technology Building (9-1-78) to cope with the growing demands of students.

The Bicentennial Year was a special time for Cerritos, as well as for millions of other Americans. Twenty years earlier, the 135-acre campus had been in its infancy, and educational visionaries had predicted that by 1975 more than 15,000 students would be attending classes in the many buildings depicted only on the architect's drawing boards. That modest forecast failed to foresee an even greater need in the community by 1975, when nearly 23,000 students enrolled in courses. In 1970-71 the predicted 15,000 had already been exceeded, and growing pains brought expansion to the campus, which continues to grow to meet the demands of the surrounding communities.

By its twenty-fifth anniversary, Cerritos College had educated nearly 250,000 students since it first opened its doors at Excelsior High School. Course offerings had expanded, a satellite campus program had been implemented, and the faculty and staff had grown as the community needs increased. Cerritos College received its first ever Federal Title III grant in 1986. The grant was in the amount of $500,000 renewable for five years totaling $2.5 million dollars.

Over the last few years, the College has undergone five major renovations. In 1994, the Library and Learning Resource Center (LRC) underwent another major renovation and expansion. The library expanded from 22,000 square feet to over 40,000 square feet. And the old card catalog was replaced with an automated on line system as a result of a major financial gift by the Associated Students of Cerritos College (ASCC). A modern teleconference center and learning assistance lab were added to the east wing of the Learning Resource Center.

The Student Center was renovated in 1995, funded by a three-way partnership between the ASCC, the College District and the State. Unchanged since its doors first opened, The Student Center was completely remodeled from the main floor to the adjacent Culinary Arts food service. The renovation also included a four-restaurant food court with both indoor and outdoor casual dining for students.

In fall of 1998 Cerritos College opened the doors to the "One-Stop" Student Services Center. The new center houses a full spectrum of student resources including admissions and records, academic counseling, financial aid, the Scholars' Honors Program, veteran's affairs, EOPS (Extended Opportunities Programs and Services) and university transfer assistance. Each department is equipped with high-speed Pentium computers, designed to provide immediate access to the College's network. In addition, the College's Career Services and Job Placement Centers have been moved within a short distance of the "One Stop" Student Services Center making it the central hub of all Student Services and enrollment activities.

Also in the fall of 1998, the second phase of the Learning Resource Center (LRC) opened, with more than 500 high-speed personal computers and 699 data ports. The dual-level computer labs provide students with access to the latest software, the Internet for students and tutorial programs. In addition, there are dedicated labs for reading, math, English and foreign languages. This renovation of the LRC was part of a $12 million investment in a technology infrastructure that also included the "wiring" of the entire campus and the placement of a networked PC on the desk of each employee. As a result, Cerritos College became "the most technologically advanced community college in the state" for teaching and learning.

And in 1999, the ASCC underwrote the development of Falcon Square, formerly a cement quad situated at the heart of the campus. Falcon Square is a wonderful area for students to relax or study in front of a split face block waterfall with concrete seat caps and slate covering. As part of the renovation, a 300-seat outdoor amphitheater is built in front of the College's music building.

Cerritos College takes pride in the quality of their outstanding faculty. In 1995, Economics Professor Dianne Keenan was selected as the "Community College Professor of the Year" by the National Carnegie Foundation for the Advancement of Teaching. And in 1999, Mathematics Professor Susan Parsons was recognized as the nation's "Outstanding Community College Faculty Member of the Year" by the Association of Community College Trustees (ACCT).

Cerritos College is highly diverse. Across the nation, it is the fourth largest Hispanic serving community college. Furthermore, it is home to more than 300 international students representing 34 countries.

With the turn of the millennium, expansion began to take on a new face at Cerritos College. Instead of adding onto the campus as in the past, Cerritos College began to develop global partnerships with the aid of technology. This became extremely beneficial to education in the aftermath of Sept. 11, 2001 when pursuing cross-cultural educational opportunities became more difficult.

In late 1999, a partnership began between Cerritos College and the University of Wisconsin-Stout (UW-Stout). The two colleges began to hold joint class sessions in real time with the use of a TV screen and the Internet. Not only did this allow for Cerritos College students to exchange ideas with students in another part of the country, but it also allowed Cerritos' ethnically diverse student body to exchange points of view on United States history with the predominately Caucasian population at UW-Stout.

In 2003, the concept of the virtual classroom once again expanded, and Cerritos College entered into a similar partnership with International Pacific College (IPC) in New Zealand. For the first time ever at Cerritos College, two hemispheres were connected in real time and students were able to participate in multi-national approaches to world history.

Both the partnership with UW-Stout and IPC also allowed for a handful of Cerritos students to visit their partner campuses and experience "hands on" what they had been experiencing via technology.

In 2002, the groundwork was set for Cerritos College to launch into the world of tribal technology with the Indian community. In 2003, the college began offering online courses offering custom training for American tribal governments. Cerritos College was awarded a $50,000 Verizon Foundation Grant for the pilot phase of their program, and their first workshop to promote the program was attended by over 15 tribes from California, Arizona, Oklahoma, Idaho and Nevada. Currently, three online courses are being offered to tribal governments.

So now, not only is Cerritos College serving the communities of Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada and Norwalk, but it is also serving locations in Wisconsin, New Zealand, Bolivia and America's Indian Country.

With technology on the rise, Cerritos College is also raising the bar on global partnerships and is making a direct impact on globalization in education by forging ahead into the previously unthread waters of international education right here at home.

Vision

Cerritos College, as an institution of higher education, is:
Dedicated to excellence in teaching and learning;
Committed to meeting diverse student needs;
United with the community to serve our students' education, career, and life-long learning needs.

Philosophy and Objectives

Cerritos College is a community-oriented institution that embraces diversity, innovation, and active learning. We strive for high academic and ethical standards, as well as academic freedom. We believe in the worth and dignity of our learners, regardless of age, gender, ethnicity, or disability. In educating, we consider the learner's cognitive growth, and seek to foster emotional and physical well-being. The College prepares individuals for full participation in a complex democratic society, as citizens and leaders, for the fulfillment of personal goals and the future of the region. We believe that the purpose of education is to enlighten and enhance the quality of life.

Mission

Cerritos College is an open access institution committed to providing high-quality, academically rigorous instruction in a comprehensive curriculum that respects the diversity represented in our student body and our region. We provide a technologically advanced educational community in which students pursue a variety of educational goals: attainment of an associate's degree, transfer to a four-year university, vocational degree or certificate, or job skills. Achievement of these goals is strongly supported with instruction in basic skills as well as with student and instructional support services. Beyond these college credit programs and services, Cerritos College actively enriches the surrounding community through its varied community education programs.

Academic Information

Admission to the College

Admission to Cerritos College is open to any high school graduate or equivalent or persons eighteen years of age or older and shows evidence of being able to benefit from instruction. Students entering any of the public community colleges of California are subject to the residence requirements as determined by the State of California. A student is eligible to attend Cerritos College whose legal residence is within the state of California. Residents of any other state or foreign country may be subject to non-resident tuition.

The legal residence of any unmarried student under 18 years of age is considered to be that of the parent or guardian. The student should be prepared to present proof of residence.

Cerritos College does not discriminate against any person in employment or college participation because of race, color, religion, sexual orientation, sex, handicap or age.

Further inquiries may be directed to the Office of Admissions and Records at (562) 860-2451, Ext. 2211 or the Cerritos College website at http://www3.cerritos.edu/student-services/admissions/.

APPLICATION

All students requesting admission to Cerritos College must file an application for admission in the Admissions and Records Office (Early submission of admission applications is recommended). It is the responsibility of applicants to submit honest and true information; any deliberate falsification of information on the application or residence verification may be grounds for dismissal from the College.

Upon receipt of admission application, Admissions and Records will issue Falcon Phone enrollment appointments. Additionally, a student identification number will be issued to applicants. A student identification number is necessary to complete the matriculation process: assessment testing, counseling appointment, and enrollment.

TRANSCRIPTS

It may be necessary to submit transcripts from previous schools, colleges and universities for the establishment of prerequisite eligibility. Transcripts verifying units from other institutions may be used to complete CSU General Education requirements, IGETC requirements, Certificates of Achievement and Associate of Arts Degrees.

ADMISSION OF HIGH SCHOOL STUDENTS (VEYSEY PROGRAM)

The Veysey program represents a cooperative venture between Cerritos College and its neighboring high schools. Under the terms of this program, juniors and seniors at least 16 years of age may take college courses to achieve three important purposes:

1. Advanced academic work: High school students can get a head-start in their college major or in completing college graduation requirements.
2. Vocational-technical career courses: Students can take courses not available in a high school or can obtain advanced work beyond the scope of a high school's vocational program.
3. "Bridging the Gap:" Students can become familiar with college work and college procedures while still at the high school.

Upon recommendation of the high school and with parental consent, high school juniors and seniors may take classes at Cerritos College. High school students may enroll in courses and possibly receive both high school and or college credit, but must also attend a minimum day at the high school. Enrollment in the summer session immediately prior to the junior year is also open to high school students. No enrollment fee (with the exception of health and student ID fees) will be charged to concurrently enrolled high school students. Veysey students will not be eligible for continuing student enrollment dates. Interested students should contact their high school counseling office or the Cerritos College School Relations Office at (562) 860-2451, Ext. 2130 for more information.

Students who need accommodations due to a disability should make arrangements for these through their K-12 school district, in consultation with the DSP&S office at Cerritos College.

ADMISSION OF MINORS

The College may admit as a (non-Veysey eligible) part-time or full-time student in grades kingergarten through 10 (K-10) an advanced student who, in the opinion of the Dean of Academic Affairs and designated faculty and staff, may benefit from instruction to be taken.

This is not a remediation program. For example, if a student fails or does poorly in a particular course(s) at his/her school, Cerritos College is not an alternative institution through which deficiencies can be made up. The minors program for under-aged students is for advanced students who desire to take courses that are not available at their schools.

Students applying for admittance must meet the following criteria:

1. Submit an application for admission to Cerritos College, and;
2. Submit a completed special minors application form;
3. Enroll in 12 units or fewer, and;
4. Demonstrate the ability to benefit from more advanced scholastic or vocational work than is available in the K-10 setting as determined by the Dean of Academic Affairs and designated faculty and staff, and;
5. Be authorized to attend Cerritos College by the Public School District if the student attends public school;
6. Undertake courses of instruction of a scope and duration sufficient to satisfy the requirement of law.
7. Minor students must submit a completed Permission Letter for Special Minor Students (application only) each term or semester they wish to attend Cerritos College.

Underage minors are exempt from per unit fees and are not eligible for continuing student enrollment dates. Students who need accommodations due to a disability should make arrangements for these through their K-12 school district, in consultation with the DSP&S office at Cerritos College.

ADMISSION OF INTERNATIONAL STUDENTS

The International Student Center welcomes F-1 international students to attend Cerritos College. The Center provides international students assistance with admissions, counseling, immigration advisement, cultural adjustment and educational support while they pursue their academic goals. We assist international students in their relations with the U.S. Immigration and Naturalization Service and other U.S. and foreign governmental agencies while they maintain proper immigration status at Cerritos College. Mandatory medical insurance is required for all F-1 students attending Cerritos College. Visit our website at www.cerritos.edu/isp or call us at (562) 860-2451, ext. 2133, for further information or for an international student application package.

Documentation required:

Application
- Fee of $40 for new student (fee of $25 for readmit student)
- Statement of Support
- Bank Certification (verification on bank letterhead signed by a bank official showing at least $17,000 available to the student or equivalent.)
- TB exam results
- Transcripts (proof of high school graduation)
- TOEFL (Not needed for Intensive English Program) and/or Cerritos College Placement Test
- Copy of Passport, Visa, and I-94
- Copy of ALL I-20's
- Transfer Authorization (if applicable)
- Proof of Medical Insurance Coverage (available in the International Student Center)

Costs: Approximate fees and accommodations for one year: (Subject to change)

• Application fee	$40
• Tuition and enrollment fee* ($162.00 per unit)	6,000
• Books and supplies	1,600
• Student Health Fees	24
• College student ID Fee	20
• Health Insurance (mandatory)	540
• Living expenses (Approx.)	11,840
• Parking permit (optional if you have a vehicle)	40
• Approx. total for the year:	20,104
Approx. tuition fees per semester based on 12 units:	$2,200

**Fees are subject to legislative changes without prior notice.*

For further information contact:
Cerritos College
The International Student Center
11110 Alondra Blvd.
Norwalk, CA 90650-6298 U.S.A.
E-mail: dkurtz@cerritos.edu
Phone: (562) 860-2451 ext. 2133 Fax: (562) 467-5086

Expenses

The cost of textbooks, supplies, and equipment will depend upon the number or kinds of courses taken. Textbooks and supplies are sold in the college bookstore. Additional fees as noted below must be paid at time of registration:

STUDENT FEES

1. Enrollment fees for the community college student is $11 per unit. FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE DUE TO STATE LEGISLATION.
2. Students who are non-residents of California will also be subject to non-resident tuition fee of $149 per unit. International student fee is $158 per unit, PAYABLE AT TIME OF REGISTRATION. Active military personnel and their dependents are exempt for one year from this out-of-state tuition charge. Non-resident students who have been admitted to a class or classes without payment of the fee because of falsification of information submitted by or for them, shall be subject to dismissal from college. If the above fees are not paid during the same day of registration, your complete program will be dropped and you will have to re-register.
3. Student Health Fee is $12.00 per semester, $9.00 for Summer Session.
4. College Services I.D. Fee is $10.00 per semester, $4.00 for Summer Session.
5. Parking fees provide security and maintenance of parking lots. On-campus parking for automobiles is $20.00 per semester and $10.00 for Summer Session for students. Mopeds and motorcycles may use designated areas at no charge.

REQUIRED INSTRUCTIONAL AND OTHER MATERIALS POLICY

Students may be required to purchase instructional and other materials required for a credit or noncredit 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. The materials will be required if:

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

Any questions with respect to the interpretation of this regulation shall be in writing and addressed to the College's Vice President of Academic Affairs. (Title 5 Cal. Admin. Code Sec. 59400, Education Code Section 76365, and Board Policy 3030)

REFUND POLICIES AND PROCEDURES

It is the student's responsibility to apply for a refund. A student is eligible for a refund after classes have been officially dropped. Classes must be dropped by the appropriate deadline for the session in order to be eligible for a refund. A student is eligible for a refund if:

a. classes are dropped by the required deadline;
b. the program change is the result of action taken by the district to cancel or reschedule a class;
c. the student is dropped for failure to meet a prerequisite(s) or corequisite(s); and/or,
d. the student is active or reserve U.S. military personnel who withdraw due to military orders.

The above listed eligible students may file a petition with the district requesting refund of their registration fee(s). A refund will not be processed if academic credit has been awarded for the class. Refunds will be mailed after your application is filed at the Payroll/Fee Station in the Administration Building. Be sure your address is correct at the time you file. To an officially withdrawn student, the following refund guidelines apply:

1. Enrollment Fee, Non-Resident Tuition, and International Student Tuition - Fall and Spring Semester, Summer Session and Short-Term Classes - A student will be fully refunded if classes are dropped within the drop dates published in the Schedule of Classes. There are no exceptions to the published drop dates.
2. Student Health Fee -A student will be fully refunded if all classes are dropped within the drop dates published in the Schedule of Classes. There are no exceptions to the published drop dates.
3. College Services I.D. Fee and Parking Fees - A student will be fully refunded if all classes are dropped within the drop dates published in the Schedule of Classes. If the student paid for but did not receive their Student I.D. Card or parking sticker, he/she must pick them up before applying for the refund. The Student I.D. Card and parking sticker must be surrendered at the time the student applies for the refund. There are no exceptions to this requirement.

Refunds are made pursuant to Title 5, Section 58501 or 58501.1, for program changes made during the first two weeks of instruction for a primary term-length course (18 weeks) or by the ten percent point of the length of a short-term course (15 weeks, 9 weeks, 6 weeks, etc.).

Example: 15 weeks class x 5 working days 75 x 10% 7.5. The result is rounded to allow 8 days to drop a class and be eligible for a refund.

ONE YEAR LIMIT ON REFUNDS - Classes must be dropped before filing for a refund. Students seeking refunds must meet the requirements listed above to be eligible. Students must have dropped the class(es) and met the appropriate deadlines before filing for a refund. If these conditions have been met, students have one year from the beginning of the semester in which fees were paid to apply for their refund. Beyond the one year limit, students will no longer be eligible.

Bad Check Regulations

A $10.00 fee will be charged for all returned and stop payment checks. All fees are subject to change without notice in accordance with any action taken by the Board of Trustees. Under Assembly Bill 1226, any person who writes a check on or after January 1, 1984, which is dishonored for lack of funds is civilly liable, and under the law, is liable for three times the amount of the check, plus the face value of the check.

Failure to Pay College Financial Obligations

Failure to pay college financial obligations may result in the withholding of grades, transcripts, diplomas, or registration privileges.

a. The failure by a student to pay a proper financial obligation due to the college or district may result in the withholding of grades, transcripts, diplomas, or registration privileges or any combination thereof.
b. Prior to instituting any such hold, a written notice of a student's failure to pay a financial obligation due the college or district shall be given to the student.
c. The decision to withhold any of the above may be appealed to the president/superintendent or his/her designee.
d. The item or items being withheld shall be released when the student pays the financial obligation. (Education Code Section 72237)

Incidental

Students are expected to furnish all textbooks, supplies, and uniforms as needed for instruction. The materials may be purchased through the student store which is operated by the Associated Students. In laboratory courses, students are charged actual cost of items lost or broken. Fines are assessed in the library for lost or overdue books.

Matriculation

Matriculation is a process designed to help students in planning, choosing, and achieving educational goals. The process brings the college and a student into an agreement for the purpose of realizing the student's educational goal using the college's established programs, policies, and requirements. The agreement acknowledges responsibilities of both the college and the student to attain those objectives. The main purpose of matriculation is student success.

Listed below are the basic components of the matriculation partnership shared between the college and the student.

The college agrees to provide:

- An admissions application process.
- An orientation to the College's programs and services.
- An assessment of the student's study skills, English language proficiency, computational skills, aptitudes, goals, learning skills, career aspirations, academic performance, and need for special services.
- Counseling and advisement to develop an educational plan.
- Follow-up evaluation of each student's progress in achieving an educational goal.

The student agrees to:

- Express at least a broad educational intent upon admission.
- Declare an educational goal before or during the term after which the student completes 15 units.
- Attend class.
- Work diligently to complete course assignments.
- Demonstrate an effort to attain an educational goal.
- All new students are required to participate in the matriculation partnership activities. Students who have completed an associate degree or higher at an accredited post-secondary institution are exempt from the partnership. However, exempt students may choose to participate in any portion of the matriculation process.
- Alternate arrangements are available for students with physical, communication or learning disabilities, or who are on financial aid and are determined as EOPS eligible students. Contact the Counseling Center for details. Outlined below are guidelines designed to help you complete the matriculation process.
- Failure to comply with matriculation regulations, declaring an educational goal and developing an educational plan may result in the termination of matriculation services to the student.

For additional information, visit the matriculation website at http://www3.cerritos.edu/student-services/counseling/cg-matric.html.

ADMISSIONS

Complete and submit the Cerritos College admissions application to the Admissions and Records Office, located in the Administration Building or on the college web site. Transcripts from other institutions may be required.

ORIENTATION

After completing assessment testing, sign up for an orientation workshop at the appointment desk in the Counseling Office or make an appointment by calling (562) 860-2451, extension 2231. There are both day and evening orientation workshops.

Day workshop includes: campus information, preparation for registration, and a campus tour.

The evening workshop is designed for adults returning to school. It includes campus information and preparation for registration.

Students are encouraged to receive assessment PRIOR to attending an orientation workshop.

Orientation and Educational Planning classes are available throughout the semester.

EXEMPTIONS: Re-admit and transfer students.

ASSESSMENT

The Career Services Center offers the following services to assist students in exploring and planning their academic and vocational futures:

(1) Assessment Testing,
(2) CalWORKs,
(3) Career Planning,
(4) Student Employment-Job Placement, and
(5) Re-entry Program

The Career Services Center is located in the Administration Building.

"ASSESSMENT" means the process of gathering information about an individual student to facilitate his or her success. At Cerritos College, assessment includes, but is not limited to, the collection of information regarding student's study skills, English language proficiency, computational skills, high school and/or college transcript review, evidence of A.A. degree or higher from an accredited institution, learning skills, academic performance, and need for special services. In addition, career assessment is the opportunity to explore career aspirations, goals, skills, interests, aptitudes and values.

Do I Need to Take an Assessment Test?

If you plan to enroll in a math, English, ESL (English as a Second Language), or reading class or if you plan to earn an A.A. degree, it is strongly recommended that you take assessment tests prior to registration.

Please note: *The exceptions listed are assessment options for clearance or placement. To meet the required reading, math, and English proficiencies necessary to qualify for the Associate in Arts Degree, check your catalog or ask a counselor.*

Assessment Testing Schedule

Copies are available at the Admissions and Records Office, Counseling Office, Career Services Center, and the college web site; or call (562) 860-2451, Ext. 2356 for dates and times.

Assessment Test Exemptions

Students who already possess an A.A. degree or higher are not required to take assessment tests, but will be required to verify the degree by presenting official documents to the Admissions and Records Office at least one week prior to registration.

Individual Assessment Exceptions for Course Placement

English

If you have completed English 100 (formerly English 1) or an equivalent three unit college-level composition course with a "C" grade or higher at an accredited college, you are exempt from the English Assessment. Please submit official proof (grade reports or transcripts) to a counselor prior to registration.

Basic Math

If you have completed Algebra 1 or higher with a "B" grade or higher at a high school or an accredited college, you are exempt from the Basic Math Assessment. Please submit official proof (grade reports or transcripts) to a counselor prior to registration.

Advanced Math

Students who achieve MATH 60 (formerly MATH 30) clearance on the Basic Math Readiness Test may take one of the appropriate Advanced Math Tests to determine their math level.

Students may be placed in advanced math courses based on a "B" grade or higher in recently completed high school or college algebra courses. It is strongly recommended that these math courses have been completed within the past three years. Proof of high school or college grades is required.

Advanced Placement Courses

Students who participate in advanced placement courses at their high schools and scores 3, 4, or 5 on the College Board Advanced Placement Examination will be granted units toward the A.A. degree.

Chemistry

Please read the prerequisites and recommendations section with each Chemistry class listing. Be sure that the prerequisites are satisfied before registering for a course.

Accommodations for English as a Second Language

Students planning to take ESL (English as a Second Language) courses need to take the CELSA and ESL writing placement exam.

May I Retake a Test?

Students are allowed to retake tests using the following schedule:

Basic Math Readiness. . . . . May be repeated one time AFTER one semester waiting period.
Intermediate Algebra Readiness.....May be repeated one time AFTER one semester waiting period.
Advanced Math Readiness. . . . . May be repeated one time AFTER one semester waiting period.
Calculus . . . . . May be repeated one time AFTER one semester waiting period.
Reading.. . . . . May be repeated once per semester.
English . . . . . ay be repeated one time AFTER one semester waiting period.
ESL Writing and CELSA. . . . . May be repeated one time AFTER one semester waiting period.

Accommodation for Special Needs

Any student with a verified disability may arrange an appointment for alternative administration of English, reading, mathematics, and ESL placement tests by contacting Disabled Student Programs and Services, (562) 860-2451, Ext. 2333. Alternative administration may include extended time, large print, readers or writers.

COUNSELING

All new and probationary students are advised to see a counselor for course approval prior to registration. Students who are on academic or progress probation are required to complete a contract with a counselor prior to registration. Students who have not declared an educational goal and students who are enrolled in precollegiate basic skills courses are highly encouraged to meet with a counselor to develop an educational plan. Readmit and transfer students are also advised to see a counselor.

All students are encouraged to meet with a counselor every semester to ensure that their educational plan accurately reflects their educational goal.

Follow-up

Counseling and teaching faculty provide a number of follow-up services to matriculated students. These services are designed to provide information regarding the students' academic progress. Special services are provided to students on academic and/or progress probation, students in basic skills courses, and students who are undecided about their educational goal. Referrals are made to on and off campus services when appropriate.

What are Prerequisites, Corequisites and Recommendations?

It is the intent of Cerritos Community College to guide students into courses in which they will have the greatest chance for academic success. Therefore, the student will find courses which have prerequisites, corequisites and/or recommendations in their descriptions. This is the case when a specific body of knowledge or skill(s) must be learned or demonstrated before the student can be expected to successfully progress to the second-level course. For example, ENGL 52 (formerly ENGL 50.2) must be taken before ENGL 100 (formerly ENGL 1). This is an example of courses that must be taken in sequence. Students are encouraged to consult the course descriptions found in the current college catalog for the identification of the prerequisites for a course.

Following are the definitions for prerequisites, corequisites and/or recommendations for course preparation:

1. A prerequisite is any requirement which must be satisfied before a student may register for a course. In other words, "prerequisite" means a course that a student is required to complete in order to demonstrate current readiness for enrollment in a course or educational program. The prerequisites offered at Cerritos College are listed with course titles in the "Announcement of Courses" section of the catalog and in the current Schedule of Classes.
2. "Corequisite" means a course that a student is required to take at the same time with another course. For example, if a student enrolls in PHAR 60 (formerly PHAR 10), he/she must take PHAR 40L (formerly PHAR 4) at the same time.
3. "Recommendation" for course preparation means a condition of enrollment that a student is strongly suggested to meet before or along with enrollment in a course or educational program but is not required to do so.
4. "Credit grade" is at least a grade of "C" (satisfactory). Credit will not be granted for substandard course work ("D" or "F").
5. "Satisfactory grade" means that, for the course in question, the student's academic record has been annotated with the symbol A, B, C, or "CR".

Sometimes students mistakenly take and successfully pass a particular course before taking its prerequisite. If this happens and the student later wants to take the preprequisite, he or she may be denied admission to that class.

What is the Prerequisite Challenge Procedure for Students?

Prerequisite may be waived by the institution for students who have presented the appropriate reasons and who have the appropriate backgrounds.

If you believe that you can meet the requirements, or that you meet one of the conditions below, then you may challenge a prerequisite. A Prerequisite Challenge Form can be obtained upon request from the Admissions and Records Office, Counseling Center or any division office. The directions for challenging a prerequisite are explained on the form.

It is the student's responsibility to provide information to support the challenge. The challenge must be filed and resolved prior to the student's registration appointment time.

Criteria for challenging a course are:

1. You have the knowledge or the ability to succeed in the course without the prerequisite. OR
2. The course which provides the prerequisite is not available.OR
3. You believe that the prerequisite is discriminatory or is being applied in a discriminatory manner. OR
4. You believe that the prerequisite was established in violation of regulations and/or the established District-approved policy and procedures.

Students must bring transcripts from other colleges/universities or high schools with them to their counseling appointment to establish that prerequisites have been met elsewhere. The counselor will review the college/university catalog published the year the course was taken.

Once you have completed the challenge procedure, your challenge will be reviewed by a Prerequisite Challenge Committee, which consists of a member of the appropriate department and the instructional dean. You will be informed in writing of the committee's determination within five (5) working days. If you are dissatisfied with the decision rendered by this body, you may appeal that decision to the Dean of Academic Affairs.

Retention Awards Program

The Retention Awards Program recognizes students who have successfully completed a semester of course work at Cerritos College. Successful completion is based on: Receiving no "W" grades in any course, earning a "C" or better in each CREDIT course of at least 3 units, enrolled in at least one pre-collegiate basic skills course (as defined by Title 5), and enrolled in a minimum of nine semester units.

Students meeting the aforementioned criteria qualify for a congratulatory letter from the Vice President of Academic Affairs/Provost, the Vice President of Student Services/Assistant Superintendent, and the Retention Awards Program Coordinator.

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Registration Information

COUNSELING

Of major importance to every student enrolled at Cerritos College is the comprehensive counseling service that is provided to assist students in achieving their educational goals as fully, smoothly, and as efficiently as possible. The constant change of requirements and prerequisites for institutions and occupations make continuing contact with the Counseling staff a vital part of the student's successful academic experience.

The counseling service consists of four major functions:
(1) assistance in planning academic programs;
(2) assistance in exploring career possibilities;
(3) consultation and referral regarding personal problems; and
(4) provision of additional auxiliary services, such as personal development classes, articulation with transfer institutions, referrals to outside agencies, orientation classes, and placement interpretation.

These various services are offered by a professional staff of credentialed counselors trained to help students in the appropriate areas of their concerns. The counseling staff works closely with all divisions of the College and keeps abreast of the educational programs both here and at the four-year institutions.

Although the use of counseling services are on a voluntary basis, all entering freshmen, students on probation, students transferring in from other schools, F-1 VISA students, and students on financial aid are required to meet with a counselor for program planning and approval before registration. Generally, students should schedule conferences each semester. Counseling appointments may be made in person at the Counseling Center located in the Administration Building or by telephoning (562) 860-2451, Ext. 2231. Walk-in counseling is also available. General academic counseling is available at www.cerritos.edu/counseling.

Due to the high volume of students seeking counseling before the start of each semester, appointments are not made during the four weeks prior to each semester. Only walk-in counseling is available during this time. Contact the Counseling Center for hours scheduled for walk-in counseling.

ENROLLMENT

Students are considered officially enrolled when all fees have been paid in full. Grades and/or credit will not be given to students that are not officially enrolled.

Enrollment dates, procedures and policies can be found in the Class Schedule. The Class Schedule is published for each term.

ADMISSION TO CLASS

Students must be officially enrolled before attending any class. It is highly recommended that students attend the first class meeting in order to avoid being dropped as a "no show." If students are unable to attend the first class meeting, every effort should be made to contact the instructor(s).

Students seeking admission into a "closed" class must secure an availability card with an add number. Students may use Falcon Phone to complete official enrollment or submit availability card with add number to the Admissions and Records office.

It is the policy of Cerritos Community College District that, unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established.

AUDITING COURSES

Auditing of courses is permitted at Cerritos College. An auditor is a student who attends a course(s) for no credit. Auditing may be available, pending instructor's approval, for any student who wishes to attend a lecture/lab for information, review purposes, or skill building. Students wishing to audit should be aware that audited courses will not appear on an official transcript.

1. Students may not audit a course unless he/she has exhausted all possibilities to take the course for credit.
2. Permission to audit a course is granted at the discretion of the instructor and with the instructor's signature.
3. When auditing, a student shall not be permitted to change his/her enrollment in that course to receive credit.
4. With the instructor's signature and permission, a credit student may switch his/her enrollment status to audit status provided the change is completed prior to the 5th week or 30% of the term, whichever is less.
5. With the instructor's signature and permission, a student may enroll in a course for audit at any time during the semester if he/she is not enrolled in that course for credit during the same semester.
6. No student will be allowed to enroll for audit prior to the first day of the course. The first day of the course refers to the actual course meeting.
7. Credit students have priority over auditors. If a course closes after an auditor has been admitted, the auditor may be asked to leave to make room for the credit student. Instructor discretion is strongly recommended.
8. The audit fee is $15 per unit. Students enrolled in 10 or more semester units may audit 3 units of audit free (may be 3 one-unit courses or any combination equaling 3 units). The $15 per unit audit fee will automatically be charged if the student drops below 10 units.

ADD / DROP PROCEDURES

ADD

If changes to enrolled class schedule become necessary please follow the steps below:

1. To ADD a class, complete an ADD/DROP card, which is available in the Admissions and Records office located in the Administration Building..
2. Submit the completed ADD/DROP card to an Admissions and Records Assistant for OFFICIAL entry. You will receive an updated receipt with validation.

If the class is closed, an availability card must be obtained from the instructor within the first week of class.

DROP

Pursuant to Title 5, section 58004 and Cerritos College Board Policy 4104, it is the student's responsibility to participate fully in class(es), once enrollment is complete. However, should it become necessary to withdraw from a class, it is the student's responsibility to

present to the Admissions and Records office, a student signed drop card.

It is the responsibility of the instructor to withdraw student(s) based on "no show" or lack of participation

It is recommended that students take the initiative to officially withdrawal themselves. Failure to officially withdraw from class(es) may result in an "F" grade for each class(es).

How to officially withdraw from class after registration ends:

1. Complete an ADD/DROP card (available in the Admissions and Records office).
2. Be sure to submit the ADD/DROP card to an Admissions and Records Assistant.
3. Report to the Payroll/Fees Station in the Administration Building for a printout.

Deadlines for withdrawal from a class or classes shall be authorized through the last day of the 14th week of an 18-week term or 75% of a shorter than 18-week term, whichever is less. The academic records of a student who remains in a class beyond the date allowed for withdrawal must reflect an authorized symbol, other than a "W."

"W's" are considered honorable withdrawals and shall not be used in calculating grade point averages. However, excessive "W's" shall be used as factors for probation and dismissal procedures. Additionally, a student who has a withdrawal ("W") in the same course two or more times, loses the privilege of priority registration for that course. Students may submit a Petition for Course Repetition, which is subject to approval or denial, to the Academic Records and Standards Committee for exceptions to the Excessive "W" policy for course repetition.

DROPPING A CLASS(S) AFTER THE DROP DEADLINE

Students must have documented, circumstances beyond his/her control to initiate a drop after the listed deadline. Examples of circumstances beyond the control of the student include, but are not limited to, the following: accident, illness, change in work schedule, or other documented circumstances.

PETITION PROCESS

1. Student requests an Extenuating Circumstance Petition (ECP) in the Admissions and Records Office.
2. Student completes the form and attaches the documentation verifying circumstances beyond his/her control. The form is then submitted to the Admissions and Records Office.
3. Admissions and Records forward the ECP and supporting documentation to the appropriate faculty member for approval or denial.
4. The faculty member forwards the approved or denied ECP to the Admissions and Records Office.
5. The student will be notified, by mail, of the result of the Extenuating Circumstance Petition.

STUDY LOAD

In order to meet graduation requirements in four semesters, students must carry an average of 16 units of credit each semester. Students desiring to enroll in more than 18 units must have the approval of a counselor. Other unit limitations are:

Foreign Visa Students not less than 12 units.
Intercollegiate athletics not less than 12 units.

Repetition of Courses

Course repetition allows such courses for which substandard work has been recorded, to be repeated only once. The previous grade and units will be disregarded in the computation of Cerritos College grade point average. When course repetition occurs, permanent academic work shall be annotated in such a manner that all work remains legible ensuring a true and complete academic history. The following policies apply to course repetition.

Students may use course work from an accredited college or university to replace a Cerritos College course in which substandard work was recorded.

Courses designated as repeatable are indicated following this section.

Exceptions to the Course Repetition Policy

Students may petition the Academic Records and Standards Committee for consideration of exceptions to the policy.

Examples of Exceptions:

1. Student received two, substandard grades or "W's," or any combination.
2. Student's previous grades are a result of documented circumstances beyond his/her control.
3. Curriculum changes have occurred.
4. Repetition is necessary for legally mandated training. *Such courses may be repeated any number of times, regardless of whether or not substandard work was previously recorded, and the grade received each time shall be included for purposes of calculating the student's grade point average. ***(Title 5, Division 6, Ch. 6 Subchapter 9, §55763)***

Cerritos College has identified the courses listed below as repeatable under the above guidelines for the maximum number of units listed.

PLEASE NOTE

A computer system identifies a student who is attempting to repeat a course more than the permitted number of times. A program to check for course repetition is run before the semester begins and again at check points during the first part of the semester. A student attempting to repeat a course which is nonrepeatable under the above guidelines is automatically dropped from the course.

COURSE	DESCRIPTION	UNITS	MAXIMUM UNITS
AB 50A	Body Trim and Minor Repairs	1.0	2.0
AB 50B	Panel Replacement	1.0	2.0
AB 50C	Structural Repair Set-Up	1.0	2.0
AB 52	Structural Damage Repair	4.5	9.0
AB 53	Suspension, Alignment and Power Train Damage	4.5	9.0
AB 54	Advanced Design Automotive Panel Repair	4.5	9.0
AB 55	Structural Panel Replacement	4.5	9.0
AB 57	Structural Automotive Welding	2.0	6.0
AB 58	Collision Repair Update	4.5	13.5
AB 59A	Computerized Measuring	1.0	2.0
AB 59B	Unitized Body Analysis	1.0	2.0
AB 59C	Full Frame Analysis and Repair	1.0	2.0
AB 59E	Full Frame Repair – Gauges	1.0	2.0
AB 60A	Sanding and Paint Preparation	1.0	2.0
AB 60B	Mixing and Application of Paint	1.0	2.0
AB 60C	Paint Defects Causes and Cures	1.0	2.0
AB 61	Preparation and Spot Refinishing	4.5	9.0
AB 62	Overall and Multi-Coat Refinishing	4.5	9.0
AB 63	Production Refinishing	4.5	18.0
AB 65	Mixing and Adjusting Color	2.0	6.0
AB 66	Lettering, Striping & Design	2.5	5.0
AB 68	Refinishing Update	4.5	18.0
AB 73/74	Auto Collision Rep Occ Work Experience	3-4	15-16
AB 75	Body Panel Modification	4.5	9.0
AB 80	Autobody Customer Service	2.0	8.0
AB 80A	Vehicle Staging	1.0	2.0
AB 80B	Damage Analysis and Automotive Systems	1.0	2.0
AB 80C	Vehicle Types and Customer Relations	1.0	2.0
AB 83A	Computerized Damage Estimating-ADP	1.5	3.0
AB 83C	Computerized Damage Estimating-CCC	1.5	3.0
AB 83M	Computerized Damage Estimating-Mitchell	1.5	3.0
AB 86	Production Management	2.0	8.0
AB 88	Estimating and Management Update	3.0	12.0
AB 181	Non-Structural Damage Estimating	3.0	6.0
AB 182	Structural Damage Estimating	3.0	6.0
AB 183	Computerized Damage Estimating	1.5	6.0
AB 281	Structural Damage Analysis for Estimators	1.0	2.0
AB 285	Collision Repair Management	3.0	6.0
AB 287	Advanced Collision Repair Management	2.0	8.0
AJ 173	Administration of Justice Occupational Work Experience	3.0	15.0
ANTH 251	Field Trips in Archaeology	3.0	6.0
ARCH 43/44	Arch Drawing Occ Work Experience	3-4	15-16
ART 50	Chinese Brush Painting	3.0	6.0
ART 114	Storyboard and Graphic Novel Illustration	3.0	6.0
ART 115L	Printmaking Lab	1.0	4.0
ART 117	Intermediate Printmaking	3.0	6.0
ART 136	Painting for Art Majors	3.0	6.0
ART 145	Jewelery Casting & Molds	3.0	6.0
ART 151	Ceramics – Wheelthrowing	3.0	6.0
ART 152	Ceramics Handbuilding	3.0	6.0
ART 155	Beginning Ceramic Sculpture	3.0	6.0
ART 156L	Ceramics Lab	1.0	4.0
ART 160	Life Sculpture	3.0	12.0
ART 163	The Techniques of Sculpture	3.0	6.0
ART 170A	Beginning Wood Sculpture I	2.0	4.0
ART 170B	Beginning Wood Sculpture II	2.0	4.0
ART 171	Occupational Work Experience in Art	1.0	4.0
ART 180	Calligraphy I	3.0	6.0
ART 181	Calligraphy II	3.0	6.0
ART 183	Introduction to Illustration	3.0	6.0
ART 183A	Commercial Brush Lettering	1.0	2.0
ART 183B	Copperplate Calligraphy	1.0	2.0
ART 186	Computer Graphics in Art and Design	3.0	6.0
ART 188	Design for Desktop Publishing	3.0	6.0
ART 189L	Computer Graphics Lab	1.0	4.0
ART 190	Animation Principles	3.0	6.0
ART 191A	Computer Animation	3.0	6.0
ART 191B	3D Computer Animation Project	3.0	6.0
ART 192	Digital Imaging	3.0	6.0
ART 194	Multimedia Design	3.0	6.0
ART 195	3D Computer Molding	3.0	6.0
ART 196	Introduction to Designing Web Graphics	3.0	6.0
ART 197	Digital Painting	3.0	6.0
ART 198	Motion Graphics	3.0	6.0
ART 213	Intermediate Life Drawing	3.0	6.0
ART 214	Special Studies in Life Drawing	3.0	6.0
ART 217L	Advanced Screenprinting/ Advanced Etching Lab	1.0	4.0
ART 218	Screenprinting	3.0	6.0
ART 219	Advanced Etching	3.0	6.0
ART 231	Intermediate Painting	3.0	6.0
ART 232	Portraiture: Drawing/Painting the Head	3.0	6.0
ART 237	Life Painting	3.0	6.0
ART 238	Spec Studies in Painting	3.0	6.0
ART 239	Portrait Painting	3.0	6.0
ART 246	Jewelery Design Fabrication	3.0	6.0
ART 248	Hollow Forming Jewelry Processes	3.0	6.0
ART 252	Ceramics Form and Techniques	3.0	6.0
ART 253	Ceramics Form and Content	3.0	6.0
ART 255	Intermediate Ceramic Sculpture	3.0	6.0
ART 264	Sculpture - Stonecarving	3.0	9.0
ART 270	Wood Lathe Art	2.0	4.0
ART 271	Carving Tool Making	2.0	4.0
ART 287A	Letter Arts	2.0	4.0
ART 287B	Roman Calligraphy	2.0	6.0
AUTO 34	Ford Maintenance and Light Repair for Electronic Systems	2.5	5.0
AUTO 35	Ford Maintenance and Light Repair for Steering & Suspension Systems	2.5	5.0
AUTO 36	Ford Maintenance and Light Repair for Brake Systems	2.5	5.0
AUTO 37	Ford Maintenance and Light Repair for Climate Control Systems	2.5	5.0
AUTO 54	Introduction to Electric Vehicles	4.0	8.0
AUTO 55	Advanced Technology Electric Vehicles	4.0	8.0
AUTO 73/74	Auto Mech Rep Occ Work Experience	3-4	15-16
AUTO 120	Auto Lub Brakes & Wheel Align	5.0	10.0
AUTO 150	Automotive Machine Shop I	5.0	10.0
AUTO 160	Automotive Power Train	5.0	10.0
AUTO 170	Emission Control Systems-1997 Standards	5.0	10.0
AUTO 180	Automotive Air Conditioning	4.0	8.0
AUTO 224	High Performance Engines	5.0	10.0
AUTO 225	Advanced Automotive Machine Shop II	5.0	10.0
AUTO 226	Automotive Automatic Transmissions	5.0	10.0
AUTO 233	Electronic Fuel Management Systems	5.0	10.0
AUTO 243	Diagnostic Engine Performance	4.0	8.0
AUTO 245L	Automotive Specialty	2.0	6.0
BA 171	Business Administration Work Experience	1.0	3.0
BA 172	Business Administration Occ Work Experience	2.0	6.0

COURSE	DESCRIPTION	UNITS	MAXIMUM UNITS
BA 173/174	Business Administration Occ Work Experience	3-4	15-16
BA 174A	Business Administration Occ. Work Experience Alternate Plan	4.0	16.0
BCOM 152	Job Search in the Business Field	1.5	3.0
BCOT 5A	Word Module	.5	1.0
BCOT 5B	Excel Module	.5	1.0
BCOT 5D	PowerPoint/Internet Module	.5	1.0
BCOT 135	Typing Speed/Control Building	1.0	3.0
BCOT 173/ 174	Business Computerized Office Technologies	3-4	15-16
BIOL 100	Natural History of So. Calif.	1.0	2.0
BIOL 180L	Life Science Preparations	1.0	2.0
BIOL 250L	Special Topics in Biology	1.0	4.0
BL 171	Business Paralegal Occ Work Experience	1.0	3.0
BL 172	Business Paralegal Occ Work Experience	2.0	6.0
BL 173/174	Business Paralegal Occ Work Experience	3-4	15-16
BUSA 171	Business Accounting Occupational Work Experience	1.0	3.0
BUSA 172	Business Accounting Occupational Work Experience	2.0	6.0
BUSA 173/ 174	Business Accounting Occ Work Experience	3-4	16.0
BUSA 231	Current Topics in Payroll	1.5	3.0
BUSC 50	Computer-Aided Proofreading	2.0	4.0
BUSC 119A	Beginning Computer-Aided Transcription	2.0	4.0
BUSC 119B	Intermediate Computer-Aided Transcription	2.0	6.0
BUSC 119C	Advanced Computer-Aided Transcription	2.0	6.0
BUSC 119D	Basic Concepts of Realtime	2.0	6.0
BUSC 119E	Computer-Aided Medical Dictionary Build	2.0	6.0
BUSC 119F	Computer-Aided Legal Dictionary Build	2.0	6.0
BUSC 125	Computerized Shorthand Realtime Practicum I (100-130 wpm)	3.0	6.0
BUSC 126	Computerized Shorthand Realtime Practicum II (120-150 wpm)	3.0	9.0
BUSC 127	Computerized Shorthand Realtime Practicum III (140-170wpm)	3.0	9.0
BUSC 128	Computerized Shorthand Realtime Practicum IV (160-190wpm)	3.0	12.0
BUSC 129	Computerized Shorthand Realtime Practicum V (180-210 wpm)	3.0	12.0
BUSC 130	Computerized Shorthand Realtime Practicum VI (190-225wpm)	3.0	12.0
BUSC 139	Exploring Career Opportunities in Court Reporting	1.0	2.0
BUSC 141	Computerized Shorthand Theory Review/Skill Development	3.0	6.0
BUSC 142	Intermediate Computerized Shorthand	3.0	6.0
BUSC 143	Computerized Shorthand Speed Building I	3.0	6.0
BUSC 144	Computerized Shorthand Speed Building II	3.0	6.0
BUSC 145	Computerized Shorthand Speed Building III	3.0	9.0
BUSC 146	Computerized Shorthand Speed Building (140-170 wpm)	3.0	9.0
BUSC 147	Computerized Shorthand Speed Building (160-190 wpm)	3.0	12.0
BUSC 148	Computerized Shorthand Speed Building (180-210 wpm)	3.0	12.0
BUSC 149	Computerized Shorthand Speed Building (190-225 wpm)	3.0	12.0
BUSC 152	Introduction to Jury Charge Intermediate Computerized Shorthand	3.0	6.0
BUSC 153	Multiple-Voice Colloquy I Computerized Shorthand Speed Building I	3.0	6.0
BUSC 154	Introduction to Congressional Record Computerized Shorthand Speed Building II	3.0	6.0
BUSC 155	Multiple-Voice Colloquy II Computerized Shorthand Speed Building III	3.0	9.0
BUSC 156	Jury Voir Dire Procedures Computerized Shorthand Speed Development (140-170 wpm)	3.0	9.0
BUSC 157	Congressional Testimony Computerized Shorthand Speed Development (160-190 wpm)	3.0	9.0
BUSC 158	Professional Practices Hearings/ Conferences Computerized Shorthand Speed Development (180-210 wpm)	3.0	9.0
BUSC 159	In Curia/In Camera Procedures Computerized Shorthand Speed Development (190-225 wpm)	3.0	9.0
BUSC 173/ 174	Business Court Reporting/Computerized Shorthand Occupational Work Experience	3-4	15-16
BUSC 180	Computerized Shorthand Speed Building (225 wpm)	3.0	12.0
BUSC 185	CSR/RPR Examination Preparation	1.5	4.5
BUSC 190	Medical Transciption I/Court Reporting Method	3.0	6.0
BUSC 191	Medical Transcription II/Court Reporting Method	3.0	6.0
BUSC 192	Transcription Procedures	2.0	4.0
BUSC 193	Basic Captioning	4.5	9.0
BUSR 172	Business Real Estate Occupational Work Experience/Career Internship	2.0	6.0
BUSR 173/ 174	Business Real Estate Occ Work Experience/Career Internship	3-4	15-16
BUSR 174A	Business Real Estate Occ Work Experience Alternate Plan	4.0	16.0
CA 43/44	Culinary Arts Occ Work Experience	3-4	6-8
CA 101	Introduction to Food Services, Safety and Sanitation	2.0	4.0
CDEC 173/ 174	Early Childhood Education Occ Work Experience	3-4	6-8
CDSE 73/74	Special Ed Asst Occ Work Experience	3-4	6-8
CG 2	Self Aware-Edu Readiness	2.0	4.0
CG 6	Family Living for the Disabled Student	1.0	4.0
CG 50	Orientation and Educational Planning	0.5	2.0
CG 210	Job Search Strategies	1.0	2.0
CHEM 250L	Special Topics in Chemistry	1.0	2.0
CIS 5C	Business Computer Information Systems Database Module	0.5	1.0
CIS 271	Computer and Information Science Occ. Work Experience	1.0	3.0
CIS 272	Computer and Information Science Occ. Work Experience	2.0	6.0
CIS 273/274	Computer and Information Science Occ. Work Experience	3-4	15-16
COS 1	Cosmetology Salon Preparation	1.0	4.0
COS 53	Advanced Cosmetology Manipulation	6.5	19.5
COS 70C	Advanced Cosmetology Manipulation	8.0	16.0
COS 71C	Advanced Cosmetology Manipulation	4.0	8.0
DA 1	Dental Radiation Safety Licensing	1.5	3.0
98	Directed Studies	1.0	2.0

COURSE	DESCRIPTION	UNITS	MAXIMUM UNITS
99	Directed Studies	2.0	4.0
298	Directed Studies	1.0	2.0
299	Directed Studies	2.0	4.0
EDT 19	Fundamentals of Teleconferencing	1.0	4.0
EDT 20	Teleconferencing for Small Groups	2.0	4.0
EDT 21	Teleconference Telematics	1.0	4.0
EDT 22	Teleconference Review and Evaluation	1.0	4.0
EDT 23	Teleconference Production	3.0	9.0
EDT 24	Teleconference Portfolio	3.0	9.0
EDT 30	Fundamentals of Instructional Multi-media Production	2.0	4.0
EDT 43	Educational Occupation/ Work Experience	3.0	6.0
EDT 57	Apple/Claris Works for Educators	1.0	2.0
EDT 64	HyperStudio Graphics	1.0	4.0
EDT 65	Advanced HyperStudio Graphics	1.0	4.0
EDT 67	Inspiration Presentations	1.0	4.0
EDT 68	Using KidFix	1.0	4.0
EDT 81	Videos for School Use	2.0	4.0
EL 37L	Troubleshooting Service and Repair Laboratory	2.0	4.0
EL 43/44	Electronics Occ Work Experience	3-4	15-16
EL 50	Electronic Tests and Measurements	1.5	3.0
EL 53A	Introduction to Microprocessors	3.0	6.0
EL 53B	Advanced Microprocessors	2.0	6.0
EL 55	Network Cabling Technology	2.0	6.0
EL 57	Electronic Project Design and Fabrication	1.5	4.5
EL 60	Computer Aided Circuit Analysis	1.5	3.0
EL 114L	Fundamentals of Digital Electronics Lab	1.0	2.0
ENGL 227	Current Literature	3.0	6.0
ENGL 240	Creative Writing	3.0	6.0
ENGL 241	Scriptwriting for TV	3.0	6.0
ESCI 180	Earth Science Materials/Preparation	1.0	2.0
ESL 12	ESL Pronunciation	1.5	3.0
ESL 14	Accent Reduction	3.0	6.0
ESL 22	ESL Oral Communication	1.5	3.0
ESL 23	ESL Spelling	1.5	3.0
ESL 33	English for Specific Purposes	1.5	3.0
ESL 35	Editing for Advanced Grammar and Syntax	1.5	6.0
GEOL 100	Natural History of So. Calif.	1.0	2.0
HO 7	Cardiopulmonary Resuscitation	0.5	2.0
HO 9	Emergency Medical Technician I	3.0	6.0
HO 9L	Emergency Medical Technician I Lab	2.0	4.0
HO 56	Medication Calculations for Nurses	1.0	2.0
JOUR 50L	Editorial Board	1.0	3.0
JOUR 103	Newspaper Article Writing	2.0	8.0
JOUR 104	Summer Newspaper Article Writing	1.0	4.0
JOUR 105	Newspaper Production	2.0	8.0
JOUR 120	Internet for Journalists	2.0	8.0
JOUR 160L	College Magazine Production	1.0	8.0
JOUR 170	Broadcast News	1.0	4.0
JOUR 171	Work Experience/Journalism	1.0	4.0
MA 73/74	Medical Assisting Occ Work Experience	3-4	6-8
MATH 90A	Training for Tutors of Mathematics I	2.0	4.0
MATH 90B	Training for Tutors of Mathematics II	2.0	4.0
MET 52L	Metallurgy Specialty Lab	0.5	2.0
MET 73/74	Metallurgy Occ Work Experience	3-4	15-16
MFGT 43/44	Manufacturing Tech Occ Work Experience	3-4	15-16
MTT1L	Numerical Control Specialty	1.0	4.0
MUS 112	Elementary Piano I	2.0	4.0
MUS 113	Elementary Piano II	2.0	4.0
MUS 114	Intermediate Piano I	2.0	4.0
MUS 115	Intermediate Piano II	2.0	4.0
MUS 116	Voice I	2.0	4.0
MUS 117	Voice II	2.0	4.0
MUS 118	Voice III	2.0	4.0
MUS 119	Voice IV	2.0	4.0
MUS 120	Elementary Guitar I	2.0	4.0
MUS 121	Elementary Guitar II	2.0	4.0
MUS 122	Intermediate Guitar I	2.0	4.0
MUS 123	Intermediate Guitar II	2.0	4.0
MUS 124	Concert Band	2.5	10.0
MUS 124A	Beginning Band	2.5	10.0
MUS 125	Community Symphonic Band	2.5	10.0
MUS 125A	Community Band	2.5	10.0
MUS 126	Pep Band	2.5	10.0
MUS 127	Orchestra	2.5	10.0
MUS 128	Community Orchestra	2.5	10.0
MUS 129	Woodwind Ensemble	1.5	6.0
MUS 130	Brass Ensemble	1.5	6.0
MUS 131	Percussion Ensemble	1.5	6.0
MUS 132	Guitar Ensemble	2.5	10.0
MUS 133	Stage Band	2.5	10.0
MUS 134	Jazz Ensemble	2.5	10.0
MUS 136	String Ensemble	1.5	6.0
MUS 138	Community Chorus	2.5	10.0
MUS 139	College Chorus	2.5	10.0
MUS 140	Pop Choir	2.5	10.0
MUS 141	Pop/Rock Ensemble	2.5	10.0
MUS 142	Jazz Improvisation	1.0	4.0
MUS 143	The Jazz and Popular Singer	3.0	12.0
MUS 144	Electronic Synthesizer I	2.0	4.0
MUS 145	Electronic Synthesizer II	1.0	2.0
MUS 146	Recording Techniques	2.0	8.0
MUS 147	Basic Applied Music	1.0	4.0
MUS 148	Private Study/Technique	1.0	2.0
MUS 149	Private Study/Musical Preparation	1.0	2.0
MUS 150	Private Study/Performance Practice	1.0	2.0
MUS 151	Private Study/Preparation	1.0	2.0
MUS 154	Piano Ensemble	1.50	6.0
MUS 160	Marching Brass Ensemble	1.5	6.0
MUS 161	Marching Percussion Ensemble	1.5	6.0
MUS 162	Marching Pageantry Ensemble	1.5	6.0
MUS 163	Drum and Bugle Corps	1.5	6.0
MUS 164	Touring Drum and Bugle Corps	1.5	6.0
MUS 171	Work Experience/Music	1.0	4.0
MUS 244	Digital Radio Production	3.0	6.0
NRSG 25	Clinical Workshop 1	0.5	1.5
NRSG 26	Clinical Workshop 2	0.5	1.5
ORNH 2	Bonsai	1.0	2.0
ORNH 3	Advanced Bonsai	1.0	2.0
ORNH 4A	Advanced Special Occasions Floral Design III	2.0	4.0
ORNH 4B	Advanced Special Occasions Floral Design IV	2.0	4.0
ORNH 60	Advanced Floral Design	2.0	4.0
ORNH 61A	Special Occasions Floral Design I	2.0	4.0
ORNH 61B	Special Occasions Floral Design II	2.0	4.0
ORNH 62A	Wedding Floral Design	2.0	4.0
ORNH 62B	Wedding Floral Design I	2.0	4.0
ORNH 62C	Wedding Floral Design II	2.0	4.0
ORNH 63	Integrated Floral Design	1.0	2.0
ORNH 64	Floral Design for Funerals	1.0	2.0
PHOT 171	Occupational Work Experience in Photography	1.0	4.0
PHOT 220	Advanced Color Photography	3.0	6.0

COURSE	DESCRIPTION	UNITS	MAXIMUM UNITS
PHOT 232	Studio Problems in Photography	3.0	6.0
PHOT 252	Photography of the Natural Environment	3.0	6.0
PE 120	Sedentary Activities for Students with Disabilities	1.0	4.0
PE 121	Adapted Cardiovascular Exercise	1.0	4.0
PE 122	Adapted Strength Training	1.0	4.0
PE 123	Adapted Swimming	1.0	4.0
PE 124	Wheelchair Activities	1.0	4.0
PE 125	Water Safety Instructor (WS)	2.0	8.0
PE 130	Stretching and Relaxation	1.0	4.0
PE 131	Walking for Fitness	1.0	4.0
PE 132A	Low Impact Aerobics	1.5	6.0
PE 132B	Aerobics Activities	1.5	6.0
PE 133	Step Aerobics	1.5	6.0
PE 134	Water Aerobics	1.0	4.0
PE 135A	Circuit Weight Training Beginning	1.0	2.0
PE 135B	Circuit Weight Training Intermediate/ Advanced	2.0	4.0
PE 137	Song Unit	2.0	8.0
PE 138	Yoga	1.0	4.0
PE 139	Water Aerobics	1.0	4.0
PE 141	Fitness Academy	3.0	6.0
PE 142	Fitness Academy for Older Adults	2.0	4.0
PE 143	Personal Fitness Program	1.0	4.0
PE 145	Basic Training and Physical Conditioning	1.0	4.0
PE 146	Weight Management	1.5	6.0
PE 147	Triathlon Basics	1.0	4.0
PE 150A	Swimming, Beginning	1.0	2.0
PE 150B	Swimming, Intermediate/Advanced	2.0	4.0
PE 151	Wrestling, Beginning	1.0	4.0
PE 153A	Backpacking, Beginning	2.0	4.0
PE 153B	Backpacking, Advanced	2.0	4.0
PE 154A	Badminton, Beginning	1.0	2.0
PE 154B	Badminton, Intermediate/Advanced	2.0	4.0
PE 155A	Bowling Beginning	1.0	2.0
PE 155B	Bowling Intermediate/Advanced	1.0	4.0
PE 156A	Golf, Beginning	1.0	2.0
PE 156B	Golf: Intermediate/Advanced	2.0	4.0
PE 158A	Racquetball, Beginning	1.0	2.0
PE 158B	Racquetball, Intermediate/Advanced	2.0	4.0
PE 159A	Tennis, Beginning	1.0	2.0
PE 159B	Tennis, Intermediate/Advanced	2.0	4.0
PE 160	Personal Self Defense	1.0	4.0
PE 170	Water Polo	2.0	8.0
PE 171A	Softball	1.0	2.0
PE 171B	Softball, Intermediate/Advanced	2.0	4.0
PE 171C	Slow Pitch Softball	1.0	2.0
PE 172A	Volleyball, Beginning	1.0	2.0
PE 172B	Volleyball, Intermediate/Advanced	2.0	4.0
PE 173	Soccer Fitness and Technique	1.0	2.0
PE 175A	Baseball, Beginning	1.0	2.0
PE 175B	Baseball, Intermediate/Advanced	2.0	4.0
PE 176A	Basketball	1.0	2.0
PE 176B	Basketball, Advanced	2.0	4.0
PE 177	Flag Football for Women & Men	1.0	4.0
PE 178	Football, Intermediate/Advanced	2.0	8.0
PE 179A	Soccer, Beginning	1.0	2.0
PE 179B	Soccer, Intermediate/Advanced	2.0	4.0
PE 180	Introduction to Dance Movement	3.0	12.0
PE 181	Introduction to Dance Cultures of the World	2.0	8.0
PE 182A	Dance, Modern, Beginning	2.0	4.0
PE 182B	Dance, Modern, Intermediate	2.0	4.0
PE 183	Dance Production	2.0	8.0
PE 184	Choreography	2.0	4.0
PE 185	Partnering for Dance	2.0	4.0
PE 186A	Beginning Ballet	2.0	4.0
PE 186B	Intermediate Ballet	2.0	4.0
PE 187	Dance Repertory	2.0	8.0
PE 188	Dance Performance	2.0	8.0
PE 189	Dance Workshop	2.0	8.0
PE 193	Introduction to Ballroom Dance	2.0	8.0
PE 194	Ballet Variations	2.0	8.0
PE 195	Commercial Dance	2.0	8.0
PE 196	Latin Social Dance	2.0	8.0
PE 200	Baseball	3.0	12.0
PE 201	Baseball Off-Season Conditioning	2.0	8.0
PE 202	Basketball, Men	3.0	12.0
PE 204	Basketball, Women	3.0	12.0
PE 206	Cross Country, Men	3.0	12.0
PE 207	Cross Country Conditioning	1.0	4.0
PE 208	Cross Country, Women	3.0	12.0
PE 210	Football, Men	3.0	12.0
PE 211	Football Conditioning (Olympic Weights - Power Lifting)	2.0	8.0
PE 212	Football Training and Techniques	2.0	4.0
PE 213	Intercollegiate Golf	3.0	12.0
PE 217	Soccer, Men	3.0	12.0
PE 219	Soccer, Women	3.0	12.0
PE 221	Softball, Women	3.0	12.0
PE 222	Softball Pre-Season Conditioning	1.0	4.0
PE 223	Swimming	3.0	12.0
PE 225	Swimming, Women	3.0	12.0
PE 227	Tennis, Men	3.0	12.0
PE 228	Tennis Conditioning	1.0	4.0
PE 229	Tennis, Women	3.0	12.0
PE 231	Track & Field, Men	3.0	12.0
PE 233	Track & Field, Women	3.0	12.0
PE 234	Track & Field Conditioning	1.0	4.0
PE 235	Volleyball, Women	3.0	12.0
PE 236	Volleyball Pre-Season Conditioning	1.0	4.0
PE 238	Wrestling Off Season Training	2.0	8.0
PE 239	Water Polo –Men	3.0	12.0
PE 241	Water Polo – Women	3.0	12.0
PE 243	Wrestling	3.0	12.0
PE 245	Pep Unit	2.0	8.0
PE 271	Work Experience in Athletic Training and Fitness	1.0	4.0
PHAR 173/ 174	Pharmacy Tech Occ Work Experience	3-4	6-8
PMT 2	Injection Molding Fundamentals	1.5	3.0
PMT 43/44	Plastics Manufacturing Technology Occupational Work Experience	3-4	15-16
PMT 59	Injection Molding I	2.5	5.0
PMT 61	Fiberglass I	2.5	5.0
PMT 63L	Specialty Plastics Lab	.5	2.0
READ 6	Tutor Training	.5	1.0
SLP 120L	Phonetics Lab	1.0	3.0
SPCH 30	Communication Disorders	1.0	4.0
SPCH 31	Communication Disorders	1.0	4.0
SPCH 236	Beginning Forensics Workshop	1.0	4.0
SPCH 237	Intermediate Forensics Workshop	1.0	4.0
SPCH 238	Advanced Forensics Workshop	1.0	4.0
SPCH 239	Forensics Workshop	2.0	8.0
TH 105	Intro to Musical Theatre Techniques	3.0	12.0
TH 108	Improvisation for the Theatre	3.5	7.0
TH 109	Remounting a Production	2.0	8.0
TH 110	Fundamentals of Acting	3.5	7.0

COURSE	DESCRIPTION	UNITS	MAXIMUM UNITS
TH 115	Movement for the Actor	3.0	6.0
TH 117	Stand-Up Comedy	3.0	6.0
TH 123	Stage Make-up	3.0	6.0
TH 130	Rehearsal & Performance for the Minor Role	1.0	4.0
TH 131	Rehearsal & Performance for the Supporting Role	2.0	8.0
TH 132	Rehearsal & Performance III	3.0	12.0
TH 133	Stage Crew Activity	1.0	4.0
TH 134	Theatre Production	2.0	8.0
TH 136	Touring Theatre Production for Supporting Roles	2.0	8.0
TH 137	Touring Theatre Production for Leading Roles	2.0	8.0
TH 140	Theatre Dance-Beginning Jazz	2.0	4.0
TH 141	Theatre Dance-Intermediate Jazz	2.0	4.0
TH 142	Theatre Dance-Beginning Tap	2.0	4.0
TH 143	Theatre Dance-Intermediate Tap	2.0	4.0
TH 145	Costume Production for Dance	1.0	4.0
TH 146	Musical Theatre Production for Chorus	2.0	8.0
TH 147	Musical Theatre Production for Leading Roles	3.0	12.0
TH 155	Radio Production	3.0	12.0
TH 156	Video Production	3.0	12.0
TH 160	Great Film Directors	3.0	6.0
TH 171	Occupational Work Experience in Theatre	1.0	4.0
TH 216	Acting for the Camera	3.0	6.0
TH 221	Costuming for the Stage	3.0	6.0
TH 258	Writing for Movies and Television	3.0	6.0
WELD 43/44	Welding Occ Work Experience	3-4	15-16
WELD 51L	Advanced Arc Welding Specialty Lab	1.0	4.0
WELD 54L	Advanced Pipe Welding	2.0	4.0
WELD 210L	Arc Welding Applications	2.0	6.0
WELD 240	Advanced Tungsten Arc Welding Lab	2.0	4.0
WELD 250L	Gas Tungsten Arc Welding Applications	2.0	4.0
WMT 43/44	Woodworking Manufacturing Tech Occ Work Experience	3-4	15-16
WMT 102	Machine Wood Technology	4.0	8.0
WMT 103	Machine Wood Technology II	4.0	8.0
WMT 107	Wood Finishing	3.0	6.0
WMT 111L	Introduction to Woodworking Lab	1.0	4.0
WMT 118	Wood Turning	2.0	4.0
WMT 130	Furniture Design	3.0	6.0
WMT 132	Chair Design and Construction	4.0	8.0
WMT 134	Frame Making	4.0	8.0
WMT 137	Outdoor Furniture	2.5	10.0
WMT 148	Furniture Making and Manufacturing	4.0	8.0
WMT 155	Architectural Millwork	4.0	8.0
WMT 171	Introduction to Wooden Boat Building	3.0	6.0
WMT 181	Introduction to Computer Operations for Cabinetmaking and Design	2.5	5.0
WMT 201	Woodworking with Hand Tools	4.0	8.0
WMT 202	Advance Machine Wood Tech	4.0	8.0
WMT 203	Wood Veneering	3.0	6.0
WMT 211	The Workbench Class	4.0	8.0
WMT 212	Routers and Router Tables	4.0	8.0
WMT 218	Polychromatic and Closed Form Turning	2.0	4.0
WMT 219L	Woodturning Lab	2.5	10.0
WMT 228L	Production Furniture Making and Manufacturing	2.0	8.0
WMT 229L	Comprehensive Woodworking Manufacturing Specialty	2.5	12.5
WMT 233	Morris Chair	4.0	12.0
WMT 244	Chest of Drawers	4.0	8.0
WMT 246	Rocking Chair	4.0	8.0
WMT 248	Production Furniture Making and Manufacturing	4.0	12.0
WMT 249L	Furniture Manufacturing Specialty	2.5	10.0
WMT 251	Advanced Cabinetmaking	2.0	8.0
WMT 253	Advanced 32MM System of Cabinetmaking	3.0	9.0
WMT 258	Mantels and Wall Systems	4.0	8.0
WMT 268	Production Cabinetmaking and Manufacturing	5.0	15.0
WMT 269L	Cabinetmaking Manufacturing Specialty	2.5	10.0
WMT 281	Advanced Computer Operations for Cabinetmaking and Design	2.5	5.0

PROGRAM PLANNING

Students are expected to take courses on a consecutive basis. Students are not to receive credit for courses which are considered lower in degree of advancement than those already taken. Courses are to be taken in accordance with the student's ultimate objective and major.

CHANGE OF ADDRESS

Changes in address must be reported immediately to the Office of Admissions and Records.

COLLEGE UNITS

Each college course is worth a certain number of "units". This number is determined by the type of class it is and the number of hours per week that it meets. For example, a three (3) unit lecture class (English or Health) meets three hours per week during a regular eighteen week semester, but a one (1) unit laboratory course meets three hours per week.

UNIT CREDIT FOR MILITARY SERVICE

Veterans who have served on active duty a period of one year or longer and who have received other than a dishonorable discharge may be granted four (4) units credit. The units will be designated as "Military Credit" on the transcript. To apply for these units the veteran must present the D.D. Form 214 to the Admissions and Records Office. Credits are elective credits for the A.A. Degree only and do not apply to certificate programs.

MILITARY WITHDRAWAL

Pursuant to Education Code 66023, the Board of Trustees of Cerritos College makes provisions for non-punitive withdrawals of students from class who are members of an active or reserve United States military service unit and who are compelled to withdraw from courses. Any such military orders must be verified. After such time, a student will be administratively dropped from all classes by the Dean of Academic Affairs. There will be no notation made for withdrawals. Military withdrawal shall not be counted in progressprobation and dismissal calculations.

CLASSIFICATION OF STUDENTS

Freshman- One who has earned fewer than 30 units.

Sophomore- One who has earned 30 or more units but fewer than 60 units, or has completed 60 units but does not hold a degree.

Graduate- One who has been awarded the Associate in Arts Degree or higher degree.

Full-time- One who is enrolled in 12 or more units.

Part-time- One who is enrolled in less than 12 units.

Special (Veysey)- One currently enrolled in the 11th or 12th grade in high school (may include summer session prior to 12th grade) and who desires to enroll for college credit. Such a student must have a letter of approval from either the high school principal or high school counselor and parental consent.

PARKING REGULATIONS

Parking on campus is by permit only. Any motorized vehicle (except mopeds and motorcycles) requiring registration with the California Department of Motor Vehicles must have a current parking permit each semester. On vehicles, PERMITS ARE TO BE PLACED ON THE INSIDE LOWER RIGHT CORNER OF WINDSHIELD (PASSENGER SIDE). THE PERMIT NUMBER MUST BE READABLE FROM THE OUTSIDE OF THE VEHICLE. NO OTHER LOCATION IS ACCEPTABLE. Vehicles not properly displaying or having no permit may be cited. Vehicles may be parked only in spaces or areas designed for vehicle parking. All vehicles must be parked with the front of the vehicle heading into the parking stall. Students may not park in areas designated for staff parking.

A one-semester parking permit may be purchased at Registration, or anytime during the semester at the Admissions Office or Campus Police Department, for $20.00 for fall or spring semesters and $10.00 for the summer session. A daily permit may be obtained for a $1.00 from the yellow Park-Ur-Self meters located on the sidewalks in the student parking lots. The meters accept four quarters or a $1.00 bill (meter does not dispense change). Students may not park in staff parking lots or stalls unless they are disabled and have a "DP" plate or placard AND a student parking permit displayed. During the "open registration" period listed in the class schedule, parking is free in student stalls in lots C-1 and C-2. VEHICLES NOT DISPLAYING A VALID PERMIT OR INCORRECTLY PARKED IN STAFF, METERED, OR HANDICAPPED STALLS, ETC., WILL BE ISSUED A PARKING CITATION.

PARKING AREAS

Vehicles authorized to park on the Cerritos College campus shall be parked head in only in areas that have been painted with lines indicating parking stalls. Park only in the area designated by your permit except for handicapped students with DMV permit and Cerritos College permit.

DESIGNATED PARKING AREAS ARE COLOR CODED:

WHITE ..... Student parking, student parking
..... permit required.
YELLOW ..... Faculty and staff, permit required.
GREEN..... Timed coin-operated meters.
BLUE ..... Handicapped-DMV permit and
..... Cerritos College permit required.
WHITE GRID MARKED ..... Motorcycle parking only.
PINK ..... Cosmetology patron parking-located
..... in Lot C-11. Pink cosmetology
..... patron parking permit required.
DARK BLUE ..... Student Health Services

Bicycles must park in designated areas only. All designated student and staff parking areas will be enforced Monday through Friday, 7:30 a.m. to 10:00 p.m.

PARKING ON THE INTERIOR CAMPUS

Bicycles are to park in District provided racks. Violators will be cited. Only those vehicles with approval from college's Campus Police Office are permitted to drive and park on the interior and sidewalks of the campus. Violators will be cited and/or the vehicle taken and put into storage.

OFF-CAMPUS PARKING

Off-campus parking is extremely restricted. Parking in surrounding residential areas is by City-issued permit only. The City will cite student vehicles. The property owners also prohibit parking in the shopping centers adjacent to campus. The property managers, at the student's expense, impound student vehicles parking in these lots.

RESPONSIBILITIES FOR PENALTIES

The registered owner of any vehicle on campus may be held responsible for liability or damage claims including parking or other traffic violation penalties arising in connection with the possession and/or operation of the vehicles on the Cerritos College campus.

LOST, STOLEN, OR DAMAGED PERMITS

Replacements for lost, stolen, or damaged permits may be purchased at the Campus Police Department or Payroll Office in accordance with the fees indicated.

REFUNDS

Parking permit refunds will be given through the Payroll Office. Before classes begin, a 100 percent refund will be given. After classes begin, no refund will be given.

LIABILITY

Cerritos College is not responsible and assumes no liability for damage or theft of any vehicle or its contents.

Scholars' Honors Program

The Scholars' Honors Program (SHP) at Cerritos College provides transfer-bound students with the opportunity to enrich themselves through participation in unique, challenging and interactive educational experiences. The SHP promotes this goal by providing an office that supports and assists students, by offering special Honors course sections taught by outstanding professors, and by offering opportunities for students to work one-on-one and in class with these faculty members through honors research contracts.

Honors courses build skills in speaking, writing, analytical thinking, problem solving and task-management. They fulfill basic general education requirements for graduation and transfer to a four-year college or university.

ADVANTAGES OF HONORS

Honors programs in the community college are the least expensive and one of the most efficient ways to get a good education and prepare for admission to the 4-year university or college of your choice.

Major universities that reject most of those who apply as freshmen will often accept most of the community college honors program students who apply for junior year transfer.

The Scholars' Honors Program at Cerritos is an effective way to develop your reading, writing, critical thinking and research skills and to learn to work directly with faculty members. This helps you to get good letters of recommendation that can be used for transferring to a four-year college or university, or applying for a job, internship or special program.

BENEFITS FOR SHP STUDENTS

- Working one-on-one with professors
- Small SHP course sizes
- Library privileges at UCLA and UCI
- Participation in regional and national honors conferences
- Guaranteed acceptance into several CSU honors programs offering priority registration
- Guaranteed admission or priority consideration for admission at:

UC Irvine	Chapman University
UCLA	Occidental College
UC Riverside	Pitzer College
UC Santa Cruz	Pomona College
And others	

REQUIREMENTS OF THE PROGRAM

SHP students must maintain a cumulative GPA of at least 3.0 in all their transferable courses and complete a total of six honors courses from the two options below:

1. SHP Courses Many typical general education courses have honors sections. These have smaller enrollments than other courses. They offer different teaching approaches, more opportunity for hands-on experience and direct communication with the professors.

2. SHP Contracts Each semester the schedule of classes lists courses which are available for SHP contracts. Students undertaking a contract work closely with the instructor to design and complete a special honors project connected with the regular course. On completion of the project, the student earns honors credit for the course.

CRITERIA FOR ADMISSION TO THE SHP

- All students must demonstrate (through placements tests or other means) readiness to start English 100 (freshman composition)
- Accepted students must achieve eligibility for Math 80 (second year algebra) within one year.
- High School students must have a cumulative GPA of 3.25 or above
- Current college students must have a cumulative GPA of 3.0 on at least 12 transferable units.

For applications or further information, contact:
Cerritos College
The Scholars' Honors Program
(562) 860-2451, x2728 shp-info@cerritos.edu
On the Web: http://www.cerritos.edu/shp

Learning Communities Program

The Learning Communities Program (LCP) of Cerritos College is founded on the principle that acquiring knowledge demands social interaction. For this reason, the LCP seeks to nurture students within a community of learners and to engender a new culture of learning at Cerritos College. Specifically, the Learning Communities Program commits to three interdependent objectives. First, LCP validates that students' experiences and ideas are essential components to true learning. Second, this program illustrates that collaboration and sharing increases exponentially the process of true teaching. Third, the Learning Community Program of Cerritos College demonstrates that an interdisciplinary approach to teaching and learning best prepares individuals for the complexities of living successfully in the 21st century.

WHAT IS A LEARNING COMMUNITY?

Enrolling in a Learning Community at Cerritos College means that you can complete your education program by linking two or more courses. Those who teach these courses assure that they combine the content so that learning becomes more relevant and easier for you. For example, you can be part of a learning community that combines English and history or math and economics. Equally important, by becoming part of the Learning Communities Program, you will have a great support network provided by your teachers, a counselor, and opportunities for various workshops and field trips. By combining learning, counseling, and social events, we want to increase your confidence and friendships. Each semester, the Learning Communities Program includes many linked or paired courses, courses that increase your fundamental skills and add to completion of your general education requirements. By registering for a Learning Community, you will be on the "Fast Track to Success.""

WHAT ARE THE BENEFITS OF JOINING A LEARNING COMMUNITY?

- Complete recommended basic skills courses
- Complete most of the transfer courses requirements
- Build a convenient class schedule
- Make friends in multiple classes with the same group of students
- Enjoy small group interaction
- Hear different points of view from more than one instructor
- Reinforce learning in one class while working on projects in the other
- Earn better grades

FREQUENTLY ASKED QUESTIONS

What is different about a Learning Community?
A Learning Community is a group of two or more classes where students and faculty address simultaneously the needs for greater intellectual interaction:

STUDENT ⟷ STUDENT

STUDENT ⟷ FACULTY

FACULTY ⟷ FACULTY

Are the Learning Communities courses transferable?

Yes, your credit transcript will reflect the classes as two separate courses.

What are the requirements to enroll?
You must enroll in both courses. The prerequisites are the same for each course separately. Check the Schedule of Classes.

Are Learning Community courses more difficult?
No, you will be required to do no more work than you would in two separate classes. In fact, by connecting courses, it may actually be easier to understand the material.

HOW DO I REGISTER?

Learning Community courses are identified in the Schedule of Classes by an instruction after the class listing. Follow the instruction and register for both courses. For help, check with your counselor or the Learning Communities Program Coordinator.

LEARNING COMMUNITIES PROGRAM WITHDRAWAL POLICY

Student enrolls in a group of two or more courses as part of a learning community, he or she MUST MEET THE PREREQUISITE(S), if there are any, for EACH course in the combination. Students enrolled in one section of a course that is part of a learning community must be enrolled in all other courses in that group. If one course is dropped, the student MUST and WILL BE DISENROLLED from all other courses in that learning community. THERE ARE NO EXCEPTIONS TO THIS POLICY.

Scholarship Regulations

FINAL EXAMINATIONS

Instructors at Cerritos College have established their course requirements within the framework of the College's philosophy and requirements.

Final examinations are required in all courses. A schedule for final examinations is posted two (2) weeks in advance of each semester's examination period. Students are expected to take examinations when scheduled; but in the event of an emergency or severe illness, the instructor should be notified.

GRADING

Accomplishment in course work is indicated by the following symbols:

Symbol	DefinitionGrade	Point
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing, less than satisfactory	1
F	Failing	0
CR	Credit (at least satisfactory, the equivalent of a "C"; units awarded not counted in GPA)	0
NC	No credit (less than satisfactory or failing - units notcounted in GPA)	0
I	Incomplete	0
W	Withdrawal	0
*RD	Report Delayed	0

*RD - The RD symbol is used when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student. It is a temporary notation to be replaced by a permanent symbol as soon as possible. RD shall not be used in calculating grade point averages.

GRADE CHANGES

The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetence. The correction of a grade given shall only be allowed for a request initiated within one year following the end of the term in which it was assigned.

Exceptions to the one-year limit on grade changes may be requested by petition of the student in extenuating circumstances. A formal petition must be submitted to the Academic Standards Committee. Extenuating circumstances are verified cases of accident, illnesses, or other circumstances beyond the control of the student. (Title 5, Section 55760. Board of Trustees Policy 12/8/1992).

INCOMPLETE

Students are not to re-enroll for a course in which a grade of "I" has been recorded. Incomplete academic work for unforeseeable, emergency and justifiable reasons at the end of the term may result in an "I" symbol being entered in the student's record. The condition for removal of the "I" shall be stated by instructor in a written record. This record shall contain the conditions for removal of the "I" and the grade assigned in lieu of its removal. This record must be given to the student with a copy on file with the Admissions and Records Office until the "I" is made up or the time limit has passed. A final grade shall be assigned when the work stipulated has been completed and evaluated, or when the time limit for completing the work has passed. The "I" must be made up no later than one year following the end of the term in which it was assigned. The "I" symbol shall not be used in calculating units attempted nor for grade points.

A student may petition for a time extension due to unusual circumstances.

WITHDRAWAL

Once students are enrolled it is their responsibility to attend class and complete the course requirements. It is the responsibility of the instructor to withdraw a student who is no longer participating in a course. (Title 5, Section 58004 (C) (3). It is recommended that students take the initiative to officially withdraw themselves.

Withdrawal from a class or classes shall be authorized through the last day of the 14th week of the semester (or 75% of a term, whichever is less). The academic record of a student who remains in a class beyond the date allowed for withdrawal must reflect a symbol as authorized in Title 5, Section 55757, other than a "W". "W's" shall not be used in calculating grade point averages, but excessive "W's" shall be used as factors for probation and dismissal procedures. A student who has a withdrawal ("W") in the same course two or more times, loses the privilege of priority registration for that course. Students may petition the Academic Records and Standards Committee for exceptions to the Withdrawal Policy. Failure to withdraw may result in an "F" grade for each of the classes not dropped.

TRANSCRIPTS OF RECORD

A transcript of all college work completed may be obtained by submitting a written request in the Office of Admissions and Records. Students requiring an official transcript that bears the college seal must file a written request. Students may obtain an unofficial copy of their transcript for their own personal reference. The first two (2) transcripts (whether official or unofficial) are free. For subsequent copies, a fee of $2 is charged for each regular transcript; a $5 fee is charged for each rush transcript (copy needed sooner than three (3) days). The failure by a student to pay proper financial obligation due to the college or district may result in the withholding of grades, transcripts, diplomas, or registration privileges or any combination thereof. (Education Code, section 72237).

VERIFICATION OF STUDENT STATUS FEES

The following are the fees for verification of enrollment:

$2.00 per verification of status.

$7.00 additional rush fee per verification to be completed within 48 hours.

Exemptions for these fees are for verification of enrollment and grade point average for the California Student Aid Commission for financial aid purposes.

GOOD STANDING

Students are considered to be in good academic standing with a cumulative grade point average of 2.0 or higher for all course work attempted.

PROBATION

A. Academic Probation

Students who have attempted at least twelve (12) semester units as shown by the official academic record shall be placed on academic probation if the students have earned a grade point average below 2.0 in all units undertaken at Cerritos College.

B. Progress Probation

Students who have enrolled in a total of at least twelve (12) semester units as shown by the official academic record shall be placed on progress probation when the percentage of all units at Cerritos College in which the students have enrolled and for which entries of "W," "I," and "NC" are recorded reaches or exceeds 50 percent.

Probation is entered on the student's permanent records and transcripts of record. Students placed on academic or progress probation will be notified by mail to the address listed on the official college record.

PROBATION CLEARANCE

A. Academic Probation Clearance
Students may clear academic probation by earning sufficient grade points to raise the cumulative grade point average to 2.0 or higher in the next semester of attendance. Probation status is not cleared by one semester of 2.0 GPA if it does not raise the cumulative GPA to 2.0 or higher.

B. Progress Probation Clearance
Students may clear progress probation by decreasing the percentage of "W," "I," or "NC" entries to less than 50 percent of all units in which the students have enrolled.

STANDARDS FOR DISMISSAL

A. Academic Dismissal
Students are subject to academic dismissal when their GPA is less than 2.0 in 12 units or more for two consecutive semesters on academic probation. Students subject to academic dismissal shall be placed on continued probation when their latest semester's GPA is 2.0 or better.

B. Progress Dismissal
Students who have been placed on progress probation shall be subject to dismissal if the percentage of units in which the students have been enrolled and for which entries of "W," "I," or "NC" are recorded in at least two (2) consecutive semesters reaches or exceeds fifty percent. Students subject to progress dismissal shall be placed on continued probation when for their latest semester no "W", "I", or "NC" entries are recorded.

Students are notified they have been placed on probation shortly after the beginning of the Spring Semester. Dismissal notices are issued before the start of the Fall Semester. Dismissed students may attend Summer Session to improve academic deficiencies for readmission.

REINSTATEMENT AFTER DISMISSAL

A. Academic Reinstatement
Students may re-enter the semester following academic dismissal through successful petition to the Academic Records and Standards Committee. However, such students will remain on probation until the accumulated GPA is 2.0 or higher.

B. Progress Reinstatement
Students may re-enter the semester following progress dismissal through successful petition to the Academic Records and Standards Committee. However, such students will remain on probation until the percentage of "W," "I," or "NC" entries is less than 50 percent of all units in which the students have enrolled. Petitions must be filed prior to August 1 for the Fall registration. Students who have been dismissed from another college or university must also file a petition by the above date.

DISMISSAL FROM CLASS OR COLLEGE

Excessive absences, unsatisfactory academic or progress achievement, undesirable citizenship, or falsification of information supplied to the Office of Admissions and Records shall serve as a basis for dismissal from a class or from the college.

ATTENDANCE

It is the responsibility of students to attend classes regularly and apply themselves to the college studies in which they are enrolled. When students have been absent due to illness, they should report to the instructor in charge to explain the absence. When the hours of absence exceed one more than twice the number of class hours per week, the students are considered to be excessively absent and are subject to exclusion from class.

For summer school, a student is considered excessively absent and subject to exclusion from class when the hours of absence exceed ten percent (10%) of the total class hours.

Listed below are two types of absences which permit the making up of work missed, provided that the work is of such a nature that it can be made up.

1. AUTHORIZED ABSENCE: For an approved educational field trip or school activity.
2. EXCUSED ABSENCE: For illness, injury, or quarantine.
3. JURY DUTY: Serving on jury duty is a civic and expected responsibility. Typically, courts tend to be lenient with students who are pursuing their education. If, however, an active student is required to serve on jury duty, an arrangement must be worked out in such a way that the student, upon presentation of proper documentation will not be penalized with a substandard grade in a course. Should an impasse develop between a faculty member and student, a decision can be appealed to the Dean of Academic Affairs before the final grade is assigned.

NO CREDIT WILL BE GIVEN FOR A CLASS IN WHICH A STUDENT IS NOT OFFICIALLY ENROLLED.

Students must attend the first class meeting or their names may be removed from the roll to allow another student seeking admission on an availability card to enter. If a student is unable to attend the first class meeting, the instructor must be notified.

BASIC SKILLS COURSE LIMITATIONS

No more than a total of thirty (30) units from the remedial courses listed below are allowed:

BCOM 46
ENGL 20, 22, 32
MATH 20, 40, 42
READ 41T, 42, 43, 44, 46

"Remedial course work" refers to pre-collegiate basic skills courses (i.e. courses in reading, writing, computation, learning skills, study skills) which are designated as non-degree applicable courses, the purpose of which is to prepare students for successful completion of associate in arts degrees, transfer, or certificate courses.

As students near this thirty (30) unit limit, they will be notified by the Dean of Academic Affairs and referred to a counselor for educational planning.

Students enrolled in one or more courses of English as a Second Language (ESL) or students identified as having a learning disability are exempt from the thirty (30) unit limitation. A student who has

completed thirty (30) units of remedial course work, shall be barred from registering in pre- collegiate basic skills classes and referred to other appropriate agencies to develop the skills necessary to enter college-level course work.

ACADEMIC RENEWAL REGULATIONS

An Academic Renewal procedure permits alleviation of previously recorded sub-standard ("D," "F," and "NC") academic performance which is not reflective of a student's present demonstrated ability and level of performance. The permanent academic record shall be annotated in such a manner that all work remains legible, ensuring a true and complete academic history.

1. A student may request that substandard course work attempted in up to two semesters be annotated and disregarded in the computation of the student's grade point average or requirements for a degree. Only those requested courses with substandard grades will be disregarded.
2. At least twenty-four (24) units of college work from an accredited institution with a grade point average of 2.0 must be completed. The twenty-four (24) units with the 2.0 ("C") grade point average must be completed subsequent to the semester(s) from which course work is to be alleviated.
3. At least one (1) calendar year must have elapsed from the time the grades to be disregarded were earned.
4. A student may be granted academic renewal only once.
5. No alleviated course work shall apply toward degree requirements.
6. In the petition, the student must specify course(s) to be considered under the academic renewal policy as well as the term in which the course work was attempted.
7. Some senior-level institutions and, possibly, certain out-of-state community colleges do not honor academic renewal. It is the student's responsibility to insure that his/her transfer institution will approve of academic renewal from Cerritos College.

A student may petition for academic renewal at the Office of Admissions and Records.

GRADE REPORTS

Semester grade reports are available to students at the Admissions and Records Office approximately 3 weeks after the conclusion of the term.

CREDIT BY EXAMINATION

"Credit by Examination" may be granted for proficiency previously accomplished in other than an accredited institution, for experience, study, travel, or for formal service-connected courses essentially equivalent to a course for which credit is being requested. Credit attempted by this method shall be so marked on the student's permanent record on an A-F grading system.

Units and grade points earned shall be counted toward the Associate in Arts Degree.

Units earned by "Credit by Examination" are not considered as part of the student's official program and will not be used for reports to Social Security, Veterans Administration, or similar agencies. Nonresident students will not be required to pay a tuition fee.

Students shall petition for "Credit by Examination" through a counselor. Petitioner is to take signed petition to his/her counselor for approval. If counselor approves, the petition must be submitted to the appropriate Instructional Dean for approval. It is the student's responsibility to obtain such approval by the designated deadline. (Deadline dates may vary from department to department. Student should see counselor for deadline dates). Results are forwarded to the Instructional Dean and to the Office of Academic Affairs for approval, then to the Office of Admissions and Records for recording.

Credit by exam for the Foreign Language Department will be set in the fourth week of each semester. It may be taken only for French 101 and 102; German 101 and 102; Japanese 101 and 102; Spanish 101, Spanish 111, Spanish 102, and Spanish 112.

ELIGIBILITY GOVERNING "CREDIT BY EXAMINATION"

1. The student is currently enrolled at Cerritos College.
2. The student's overall G.P.A. in all college units attempted at Cerritos College is 2.0 (This requirement is waived for new entering students.)
3. The course is approved for "Credit by Examination" (See Schedule of Classes for list of approved courses).
4. Student has met prerequisite(s) for the course.
5. The student has not already received credit for a more advanced course which follows this course in sequence.
6. The student has not previously challenged this course.
7. The course is one for which high school or college credit has not been previously granted, unless there is a course articulation agreement between Cerritos College and an educational institution or agency

A student may earn up to a maximum of 12 units through "Credit by Examination."

Those students planning to transfer to the University of Southern California should be advised that credit by exam grades are not accepted at U.S.C.

CREDIT / NO-CREDIT COURSES

Title 5, California Administrative Code, permits the granting of credit toward a degree or certificate for courses completed on a credit/no-credit basis.

A. Non-Optional:
   The courses are graded entirely on a Credit/No Credit basis. These courses are indicated in the Schedule of Classes. Units earned in such courses shall not be considered as part of the 15 unit limit in the Optional Credit/No Credit policy.
B. Optional:
   The option to enroll in a Credit/No Credit class is designed to encourage students to explore courses in which they might have an interest. Only those courses specifically listed by each department may be taken on this basis. Units thus earned will be counted toward the A.A. Degree, but will be disregarded in determining grade point average.

Courses approved for Credit/No Credit will be indicated on the student's permanent record as "CR" with units earned and no grade points or "NC" with no units earned and no grade points. Units attempted for which "NC" is recorded shall be considered in probation and dismissal procedures. The student is required to take all tests, complete all assignments, and shall be subject to withdrawal and attendance regulations. Standards of evaluation are identical for all students. The student shall petition for an optional Credit/No Credit course through the Admissions and Records Office. Optional Credit/No Credit is available only through the first 30 percent of the term. See the schedule of classes for deadlines.

Only courses which are A.A. Degree applicable may be placed on the optional course list by the departments. Also, "CR" or "NC" grades cannot be converted to a letter grade once the approval form has been filed in the Admissions and Records Office.

ELIGIBILITY GOVERNING "CREDIT / NO-CREDIT COURSES"

1. The course must be on an approved list of credit/no-credit courses. The list is available in the Counseling Office and in the "Schedule of Classes."
2. No more than fifteen (15) units of credit/no-credit courses may be completed at Cerritos College, nor may more than fifteen (15) units earned on a credit/no-credit basis be applied toward the Associate in Arts degree. Some courses are graded entirely on a credit/no-credit basis. These courses are indicated in the schedule of classes. Units earned in such courses shall not be considered as part of the 15 unit limit in the optional credit/no-credit policy.
3. The approval for a credit/no credit course must be granted prior to the end of the first 30 percent of the term.
4. There is no provision for rescinding an approved petition for credit/no-credit.

ADVANCED PLACEMENT EXAM CREDIT

Cerritos College will grant credit for College Board Advanced Placement Examinations. A score of 3, 4, or 5 is required in order to receive units toward the A.A. degree. The number of units earned through Advanced Placement Exams will be noted on the student's transcript. Credit granted can be used to satisfy Cerritos College general education requirements for the A.A. degree as follows:

AP Subject	Number of Units	Cerritos College A.A. G.E. Area
AArt: History of Art	3 semester units	5 c. (1)
Art: Studio	3 semester units	Elective credit only
Biology	4 semester units	5 a. (2)
Chemistry	5 semester units	5 a. (1)
Computer Science A	3 semester units	5 d. (2)
Computer Science AB	3 semester units	5 d. (2)
Economics: Macroeconomics	3 semester units	5 b. (3)
Economics: Microeconomics	3 semester units	5 b. (3)
*English: English Language & Composition	3 semester units	5 d. (1)
*English: English Literature & Composition	6 semester units	5 d. (1) and 5 c. (2)
Environmental Science	3 semester units	5 a. (2)
French: French Language	5 semester units	5 c. (2)
French: French Literature	5 semester units	5 c. (2)
German Language	5 semester units	5 c. (2)
Government and Politics: United States	3 semester units	5 b. (2)
Government and Politics: Comparative	3 semester units	5 b. (3)
History: European History	3 semester units	5 b. (3)
History: United States History	3 semester units	5 b. (1)
Latin: Vergil	3 semester units	5 c. (2)
Latin: Latin Literature	3 semester units	5 c. (2)
**Mathematics: Calculus AB	3 semester units	5 d. (2)
**Mathematics: Calculus BC	3 semester units	5 d. (2)
Music Theory	3 semester units	5 c. (1)
Physics B	5 semester units	5 a. (1)
Physics C (mechanics)	3 semester units	5 a. (1)
Physics C (electricity and magnetism)	3 semester units	5 a. (1)
Psychology	3 semester units	5 b. (3)
Spanish: Spanish Language	5 semester units	5 c. (2)
Spanish: Spanish Literature	5 semester units	5 c. (2)
**Statistics	3 semester units	5 d. (2)

Students planning to use AP credits toward transfer requirements should consult the transfer institution regarding its policy. Policies do differ at the various colleges and universities. Universities tend to grant credit for all College Board Advanced Placement Tests on which a student scores 3 or higher. The credit may be subject credit, graduation credit, or credit toward general education or breath requirements, as determined by evaluators at each campus. A Cerritos College counselor can help you with your inquiries..

**Also satisfies the Writing Proficiency Requirement for the A.A. degree*

***Also satisfies the Mathematics Proficiency Requirement for the A.A. degree*

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

The College Entrance Examination Board (CEEB) offers General and Subject Examinations through the College Level Examination Program (CLEP). The General Examinations measure college-level achievement in five general areas and the material covered is comparable to general education courses at the college freshman and sophomore levels. You may satisfy a significant portion of your general education requirements towards the associate in arts degree through CLEP General Examinations. Cerritos College will grant a corresponding number of units of credit for each general examination on which a student scores 500 or higher.

The College Level Examination Program is designed to be a means through which recognition, academic credit, and placement may be given for less conventional forms of educational experience. Those who may have reached a college-level of education through home or correspondence study, on-the-job training, telecourses, military service or other means may take the CLEP examinations which are offered by the College Entrance Examination Board.

A residency of 12 units of satisfactory work must be completed at Cerritos College prior to granting of credit under this program. A maximum of 30 units of credit via CLEP may be credited toward the associate in arts degree.

Credit for CLEP exams is granted as follows:

General Examination	Units	A.A. GE Area
*English Composition	6	5 d. (1)
**Mathematics	6	5 d. (2)
Natural Sciences	6	5 a.
Social Sciences	6	5 b. (3)
Humanities	6	5 c.

**Also satisfies the Writing Proficiency Requirement for the A.A. degree only if the English Composition with Essay is taken.*
***Also satisfies the Mathematics Proficiency Requirement for the A.A. degree*

You may not use CLEP to improve a previous grade earned in a course. No credit may be earned by CLEP for any course in which the student has already received a grade.

CLEP credit posted to another institution's transcript is reevaluated based on Cerritos College's standards. Evaluations made and credit allowed by Cerritos College are subject to review and evaluations by any college or university to which the student may later transfer. CLEP credit granted at Cerritos College will not be used to certify general education requirements for transfer. The University of California will not accept CLEP for transfer credit.

Repeating a CLEP examination is governed by a six-month waiting period.

Credit for Subject Examinations may be granted by Cerritos College for scores of 50 or more. The units may be applied in an area of general education and/or the major at the discretion of the college. Requests for general education credit should be submitted to the Admissions and Records Office on a Petition to the Academic Records and Standards Committee. Requests for major credit should be discussed with a counselor.

ACADEMIC HONESTY / DISHONESTY POLICY

Your instructors are eager to help you succeed in your studies at Cerritos College. But success means more than just receiving a passing grade in a course. Success means that you have mastered the course content so that you may use that knowledge in the future, either to be successful on a job, or to continue on with your education in advanced classes.

Your success depends on a combination of the skill and knowledge of your instructors, and your own hard work. You will reach your future goals only if you gain new knowledge from every course you take. That knowledge becomes yours, and can be used by you, only if it is gained through your own personal efforts. Receiving a grade in a course, without acquiring the knowledge that goes with it, diminishes your chances for future success.

While in college, you are also shaping the principles which will guide you throughout the rest of your life. Ethical behavior and integrity are a vital part of those principles. A reputation for honesty says more about you, and is more highly prized, than simply your academic skills.

For that reason, academic honesty is taken very seriously by the Cerritos College faculty. The following guidelines have been prepared so that you will understand what is expected of you in maintaining academic honesty.

Academic Dishonesty is normally to be dealt with as an academic action by the instructor, reflected in the student's grade in the particular course, rather than through college disciplinary procedures.

No specific departmental, divisional or institutional procedures are established for academic dishonesty other than the normal process for review and appeal of an instructor's grading procedures.

Academic Dishonesty is defined as the act of obtaining or attempting to obtain credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of academic dishonesty would include, but not be limited to the following:

- Copying, either in part or in whole, from another's test or examination;
- Discussion of answers or ideas relating to the answers, on examination or test when the instructor prohibits such discussion;
- Obtaining copies of an exam without the permission of the instructor;
- Using notes, "Cheat sheets," or otherwise utilizing information or devices not considered appropriate under the prescribed test conditions;
- Altering a grade or interfering with the grading procedures in any course;
- Allowing someone other than the officially enrolled student to represent the same;
- Plagiarism, which is defined as the act of taking the ideas, words or specific substantive material of another and offering them as one's own without giving credit to the source.

The faculty member may take options to the extent that the faculty member considers the cheating or plagiarism to manifest the student's lack of scholarship or to reflect on the student's lack of academic performance in the course. One or more of the following actions are available to the faculty member who suspects a student has been cheating or plagiarizing:

1. Review-no action.
2. An oral reprimand with emphasis on counseling toward prevention of further occurrences.
3. A requirement that work be repeated.
4. A reduction of the grade earned on the specific work in question, including the possibility of no credit for the work.
5. A reduction of the course grade as a result of item 4 above, including the possibility of a failing grade for the course.
6. Referral to the Office of Judicial Affairs for further administrative action, such as suspension or expulsion

Student Services

ASSOCIATED STUDENTS

The Associated Students of Cerritos College (ASCC) provides the governing body that finances, organizes, and directs many programs for the student population. It co-sponsors with the district such activities as touchtone registration, athletics, choir, band, forensics, drama, and student newspaper.

The ASCC student government includes legislative, executive, and judicial branches. Participation in these programs and other campus activities has been a significant part of many students' college experience.

STATEMENT OF STUDENT RIGHTS AND RESPONSIBILITIES

PREAMBLE

The community college exists for the transmission of knowledge, the pursuit of truth, the development of students and the general well being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of the academic community students should be encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth and knowledge.

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus and in the larger community.

Students should exercise their freedom with responsibility so as not to endanger the rights, goals and beliefs of other students. Cerritos College should be open to all qualified students regardless of race, creed, national origin, disability or sex.

CLASSROOM RIGHTS AND RESPONSIBILITIES

The professor in the classroom and in conference should permit free discussion, inquiry and expression of thought by the student. Student performance should be evaluated solely on an academic basis, not on opinions or willingness to accept professors' personal beliefs, or conduct unrelated to academic standards. Student should be free to take reasoned exception to the data or views offered in any course of study for which they are enrolled and for maintaining standards of academic performance established for each course in which they are enrolled. The student has the right to have the course taught in a systematic, meaningful manner and of knowing at the beginning of the course those academic standards required of the student in the course. Administrative staff and faculty members should respect confidential information about students such as student views, beliefs and political associations, which is acquired in the course of their work. Transcripts of academic records should contain only information about academic status.

ON THE CAMPUS RIGHTS AND RESPONSIBILITIES

Students should be free to examine and discuss all questions of interest to them, and express opinions publicly and privately. They should be free to organize and join associations to promote their common interests. The membership, policies and actions of a student organization will be determined by vote of only those persons who hold bona fide membership in that college organization. Campus advisors shall advise organizations in the exercise of their rights and responsibilities.

Student organizations shall be required to submit a statement of purpose, criteria for membership, rules of procedures, a current list of officers and the advisor shall certify the list of verified members. Campus organizations should be open to all students.

Student and student organizations should be free to support causes by orderly means which do not disrupt the regular and essential operation of the college. Student organizations shall have the right to recommend, invite and to hear any person of their own choosing as long as such speakers and topics are in accordance with federal, state and local laws, and guarantee the safety of students and protection of public property. Guest speakers invited by students or student organizations should be subjected only to those policies, requirements, and regulations as established by the Board of Trustees in order to insure an appropriate and meaningful contribution to the academic community. It should be made clear to the academic community and the larger community that the public expressions of students, student organizations and guest speakers speak only for themselves.

As constituents of the academic community, students should be free, individually and collectively, to express their views on issues of institutional policy, instruction, the evaluation of professors as it pertains to their course content and on matters of general interest to the student body.

IN THE LARGER COMMUNITY

College students are both citizens and members of the academic community. As citizens, students should enjoy the same freedom of speech, peaceful assembly and right of petition that other citizens enjoy. As citizens they should be subject to civil law as others and may incur penalties prescribed by civil authorities when violating these laws. Only where the college's interests as an academic community are distinct and clearly involved should the special authority of the college be asserted.

STUDENT PUBLICATIONS

Student publications and the student press perform the traditional roles of informing, entertaining and influencing. They are both instructional and informational, and as such should meet the highest academic and professional standards in serving the broad college community and should set forth as the primary goal of the student newspaper the coverage of news events, happenings and experiences on the college campus.

Associated Student Body, administrative and academic authorities, in consultation with students and advisors have the responsibility to define and clarify the role of student publications, and the standards to be used in their evaluation.

They must also assure that both academic freedom and editorial freedom are protected and exercised so that the integrity of the student publications program and the free press will not be compromised.

It is incumbent upon student editors and managers to act according to the highest ethics of responsible journalism. This corollary responsibility includes careful adherence to the laws of libel and good taste, and such considerations as the avoidance of indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo and should allow adequate space for rebuttal and differing views in regard to articles in which there is some controversy.

Safeguards to assure freedom of the student press with responsibility should include freedom from censorship or arbitrary control of the press, and protection of editors and managers from arbitrary attack, suspension, or removal because of disapproval of editorial policy or content by any external influence.

STUDENT GRIEVANCE POLICY

In accordance with the Statement of Student Rights and Responsibilities, this policy describes the procedures by which a student(s) of Cerritos College may air his or her grievances as applied to and regarding academic, administrative, and instructional matters relating to students, and including, but not limited to, any grievance dealing with any certificated or management employee of Cerritos College.

A grievance shall herein be defined as any act depriving a student of any of the rights set forth in the statement of "Student Rights and Responsibility," or any State, Federal, or local codes. Grades and grading grievances are not covered by this policy. Student should refer to "Grades or Grading Grievance Policy."

GRIEVANCE PROCEDURE: STEP I - INFORMAL ACTION

A. The student (or group of students), who believe that an injustice has been done to him (them), shall first attempt to resolve the complaint by informal discussion with the employee(s) involved.
B. If the problem is not resolved in step I-A, an informal discussion should take place with the person at the lowest level of authority directly above the person(s) at which the complaint is directed, where authority exists to take corrective action.
C. If the grievant still believes the issue has not been resolved satisfactorily, they may obtain a student grievance form from the Office of Judicial Affairs. After completion of this form, specifying the time, place, nature of the complaint and remedy or correction requested, it should be submitted to the Coordinator of Judicial Affairs who will send a copy of the written statement to the ASCC Supreme Court Chief Justice and the Vice President of Academic Affairs. This statement must be submitted within 30 school days after the grievant has become aware of the act or condition on which the complaint is based. A school day is defined as any day Monday through Friday that all normal college business is conducted, both in the classroom and in the administrative offices. All weekend and college holidays are excluded.
D. The ASCC Supreme Court Chief Justice or Court designee shall attempt to resolve the problem through informal meeting and discussion among the pertinent parties while remaining neutral on all issues involved. This informal meeting and discussion will attempt to involve the levels of administration concerned with the problem and should be completed within ten (10) school days (a school day is defined as a day when classes are held). In the event the informal procedure fails, then the formal procedure would be implemented.

STEP II - FORMAL ACTION

A. PRELIMINARY

1. If the grievant does not believe the grievance has been resolved, then the grievant must request through the Chief Justice Step II-Formal Action. The Chief Justice upon receiving the request of the grievant shall call a meeting of the Student Grievance Hearing Committee. The Hearing Committee will be composed in the following manner:

(a) ASCC Chief Court Justice and two (2) Court Justices or designees.
Vice President of Academic Affairs or administrative designee.
Faculty Senate President or Senate designee. One (1) Faculty Senate member, chosen by the Faculty Senate.

2. The Chief Justice or designee shall serve as the Hearing Committee Chairman, but shall have no vote in committee decisions. The five voting members of the Hearing Committee shall be selected within the first six weeks of the school year. Names selected by the Faculty Senate, ASCC Senate, and ASCC Cabinet are to be submitted to the Chief Justice. Members of the Committee will serve for a school year.
3. The Vice President of Academic Affairs or administrative designee shall serve as Hearing Committee Executive Secretary. The Executive Secretary, a voting member of the committee, shall be responsible for keeping necessary records of committee hearings and assist the ASCC Chief Court Justice in the conduct of the hearing.
4. Grievance Committee members are to deal with all grievances in a confidential manner, except when both parties agree to a public hearing.

B. FORMAL HEARING

The Hearing Committee shall conduct its proceedings according to the following procedures:

1. The Hearing Committee must meet within ten (10) school days after informal action has been completed and grievant has requested formal hearing.
2. The Chairman must notify both parties involved within five (5) school days before the hearing along with the written complaint, a copy of Statement of Student Rights and Responsibilities, and copy of the Grievance Policy.
3. Four (4) members shall constitute a quorum by which business may proceed. The quorum must include at least one student member, one faculty member, and one administrative member.
4. Both parties shall have the right to present personal statements, testimony, evidence, and witnesses. Each party shall have the right to be present, to be accompanied by the person of his choice, and to question witnesses who are present.
5. The Hearing Committee shall discuss the charge, hear the testimony, examine the witnesses, and receive all available evidence to the charge.
6. The hearing shall be closed to the public unless otherwise agreed upon in writing by both parties.
7. The Hearing Committee shall make decisions in private. The Hearing Committee shall write up findings and decisions. Copies of findings and decisions, including majority and minority reports, are to be sent to each party and the College President. The Hearing Committee's decision shall be final unless appealed.
8. A recording of the proceedings shall be kept in a confidential file in the Office of Judicial Affairs and shall be available at all times to parties directly involved. All documents, communications, and records dealing with the processing of a grievance will be filed separately from the personnel files of the participants. After a period of four years, the grievance file shall be destroyed.
9. Reprisals of any kind will not be taken by the Board of Trustees or any of its agents against any party of interest or any other participant in the grievance procedure by reason of such participation.
10. Evidence and testimony given in each case presented shall not be the sole cause of initiating or filing further grievances.
11. If the grieved party does not respond within the time limits defined herein, the grievance is considered terminated and no further action will be taken.
12. The number of working days indicated at each step herein should be considered a maximum and every effort must be made to expedite the process. Time limits may be extended by mutual consent in writing or by decision of the Hearing Committee.

13. The Hearing Committee should attempt to reach a decision by discussion and consensus on a workable solution. Voting should be a last course of action.
14. If in the course of the proceedings, a student graduates before a solution is found, the student shall not be denied full consideration under this policy. A student may also submit a grievance after graduation if the grievance did not become known until that time. However, it must be submitted within thirty (30) school days after the grievant should have reasonably become aware of the act or condition on which the complaint is based.

STEP III - APPEALS PROCESS

1. If either party is dissatisfied with the recommendation of the Hearing Committee, he may appeal within ten (10) school days to the College President/Superintendent provided the President is not a party to the grievance. If the President is a party to the grievance, and either party is dissatisfied with the recommendation of the Hearing Committee, an appeal may be submitted directly to the Board of Trustees.
2. Upon receiving the findings and recommendations of the Hearing Committee, and after examination of the appeal as requested by either party, the President may accept or reject the Committee's decision.
3. If the President rejects the Committee's decision, he shall submit his decision with the stated reasons for his objections to the Hearing Committee within ten (10) school days. The Hearing Committee shall within five (5) school days reconsider its decisions and re-submit them to the President for his final decision.
4. The President shall transmit his final decision to both parties and the Faculty Senate vice chairman or designee within five (5) school days.
5. An appeal of the President's decision may be submitted to the Board of Trustees by either party. If unresolved, the appeal must be submitted within ten (10) school days after the President's decision. The Board may review an appeal for two (2) consecutive Board meetings before making a final determination of the matter at the college level.
6. The President or Board of Trustees may change the Committee's decision only after reviewing a transcription of the hearing.

STUDENT GRADES OR GRADING GRIEVANCE POLICY

In accordance with the Statement of Student rights and Responsibilities, Section: "Classroom Rights and Responsibilities," this policy describes the procedure by which a student of Cerritos College may present his/her grievance on grades or grading practices.

The California Education Code, Section 76224, quoted below, states clearly the conditions upon which grades or grading can be questioned.

"When grades are given for any courses of instruction taught in a community college district, the grade given to each student shall be 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"

GRIEVANCE PROCEDURE STEP I

A student who believes the grade received was due to mistake, fraud, bad faith, or incompetency shall meet with the faculty member to resolve his/her concern.

STEP II

1. The student will obtain grade/grievance forms from the Office of Judicial Affairs.
2. The student must return the grade grievance form to the Office of Judicial Affairs within thirty (30) school days after the completion of the course for which the grievance was filed. A school day is defined as any day Monday through Friday that all normal college business is conducted, both in the classroom and in the administrative offices. All weekend and college holidays are excluded.
3. The Coordinator of Judicial Affairs will meet with the student and review the grade grievance form. If the student wishes to pursue the grievance, the Coordinator of Judicial Affairs will sign and date the form.
4. The student will present a copy of the grievance to the Division Instructional Dean. The Instructional Dean may schedule a meeting of all concerned if appropriate. The Instructional Dean should schedule a meeting only if the form has the signature of the Coordinator of Judicial Affairs and is dated. The Division Instructional Dean shall make a recommendation to the parties within five (5) school days.

STEP III

If either party is dissatisfied with the recommendation of the Instructional Dean, he/she may appeal the matter to the Vice President of Academic Affairs or designee within ten (10) school days of each recommendation. The Vice President of Academic Affairs or designee shall call a meeting with the student, the ASCC Chief Court Justice, Division Instructional Dean, and if needed, the faculty member. The Vice President of Academic Affairs or designee shall make a recommendation to the parties within five (5) school days.

STEP IV

If either party is dissatisfied with the recommendation of the Vice President of Academic Affairs, he/she may appeal the matter to the President of the College within ten (10) school days of such recommendation. If a faculty member is dissatisfied with a recommendation and neither acts on it, nor appeals it, the Vice President of Academic Affairs will forward the matter to the President. The President will review the Recommendation Report and if needed, request persons involved in the grievance to meet.

The President shall make a recommendation within five (5) school days. If either party is dissatisfied with the recommendation of the President, an appeal of the President's recommendation may be submitted to the Board of Trustees by either party. The appeal must be submitted within ten (10) school days after the President's recommendation. The Board may review an appeal for two consecutive Board meetings, and if needed, request persons involved in the grievance to appear before making a final determination of the matter at the college level.

STUDENT CONDUCT POLICY

INTRODUCTION

The California Education Code requires every community college governing board to adopt specific rules governing student behavior along with applicable penalties for violation of such rules.

Students enrolling in Cerritos College assume an obligation to abide by all college regulations.

DISCIPLINARY PROCEEDING

In all disciplinary actions the student should be informed of the nature of the charges against him/her, that he/she is given a fair opportunity to refute them, and that the institution not be arbitrary in its actions.

GROUNDS FOR DISCIPLINARY ACTION

A student may be disciplined for one or more of the following causes which must be District related. These categories of behavior are not intended to be an exhaustive list, but are examples of causes and are good and sufficient cause for disciplinary action.

1. The Use, Sale or Possession of Dangerous Drugs, as defined in the California Penal Code, on campus.
2. Forgery, alteration, or misuse of college documents, records, or identification.
3. Misrepresentation of oneself or of an organization to be an agent of the college.
4 Continued Disruption on or off college property of the college's educational process, administrative process or other college functions.
5. Abuse of Any Person on college owned or controlled property in the possession of, or owned by, a member of the college community.
6. Theft, of or willful damage to college property, or property in the possession of, or owned by, a member of the college community.
7. Violation of College Policies or campus regulations including campus regulations concerning the registration of student organizations, the use of college facilities, or the time, place, and manner of public expression.
8. Willful or Persistent Smoking in any area where smoking has been prohibited by lawful authority.
9. Disorderly Conduct or lewd, indecent, or obscene conduct or expression on college owned or controlled property or at college sponsored or supervised functions.
10. Possession or Use of Explosives, dangerous chemicals, or deadly weapons on college property or at a college function without prior authorization of the college president or designee.
11. Assault, Battery or any threat of force or violence upon a student or college personnel.
12. Abusive Behavior directed toward, or hazing of, a member of the college community.
13. Continual Willful Disobedience and/or persistent defiance of authority.
14. Sexual Assault Battery Acquaintance Rape. Physical abuse of a member of the college community.
15. Violation of college policies governing the use of student user accounts.
16. Any Other Cause not listed above which is identified as "Good Cause" by the Education Code.

DISCIPLINARY ACTIONS AND PROCEDURES

1. Official Reprimand – An admonishment or warning that becomes part of a student's file and is considered in the event of future violations.
   1. May be initiated by any faculty or college manager and sent in writing to the Office of Judicial Affairs.
   2. The Coordinator of Judicial Affairs shall determine if there exists good and sufficient reason to initiate disciplinary action and student should be notified of such actions.
2. Disciplinary Probation – Disciplinary action which may include exclusion of the individual from designated co-curricular activities of the college community.
   1. Shall be initiated by the Office of Judicial Affairs.
   2. The nature of the misconduct, dates, time and place, and length of probation shall be placed in writing. Written copies shall be sent to the student, and copies filed with the Office of Judicial Affairs.
3. Instructor Removal – Instructor may remove a student from his or her class when the student has interfered with the instructional process. Duration will be for the day of the removal and the next class meeting.
   1. The instructor or Instructional Dean shall immediately report the removal to the Office of Judicial Affairs for appropriate action such as official reprimand, suspension, or recommendation of expulsion.
4. Suspension – Is an action defined as exclusion from college for a specified period of time.
   1. Suspensions shall be initiated by the President or designee.
   2. The duration of the suspension from one or more classes shall be for a period of up to ten days of instruction, for the remainder of the school term, or from all classes and activities of the community college for one or more terms.
   3. There may be an immediate suspension when necessary to protect lives or property and to
5. Expulsion – Is defined as the removal of a student from any and all classes of the college.
   1. Only the Governing Board of the college may expel students for "Good Cause" or when other means of correction fail to bring about proper conduct of a student.
   2. The duration of the expulsion may be indefinitely.
   3. The expulsion is noted in the permanent file of the student.
   4. Readmittance after expulsion requires Governing Board action.

HEARING PROCEDURES

According to the Education Code, the suspension or expulsion of a student shall be accompanied by a hearing

1. A Hearing Board shall be responsible to the President for reviewing and making recommendation to the President.
2. Membership of the Hearing Board shall include the following:
   1. A Hearing Board - Two members of the instructional staff appointed by the Faculty Senate.
   2. Students - Two Court Justices appointed by the ASCC Chief Court Justice.
3. Management - The Coordinator of Judicial Affairs or a member of the management staff of the college appointed by the President. The manager shall serve as the Chairperson of the Hearing Board, but will not vote except to break a tie.
4. Procedures For a Hearing--
   1. Written notice of a hearing shall be mailed or delivered to the student. A hearing must be held within ten (10) days of the suspension if the suspension is an immediate suspension. A school day is defined as any day Monday through Friday that all normal college business is conducted, both in the classroom and in the administrative offices. All weekend and college holidays are excluded.
   2. Notice shall include date and place of hearing, a statement of all charges, a copy of Governing Board policies pertaining to suspension and expulsion, opportunity of student to appear in person, or to employ and be accompanied by counsel, at their own expense, and the opportunity to present evidence, oral and documentary.
   3 Hearings shall be conducted in the manner consistent with the orderly conduct of the affairs of the college, which seems to the Hearing Board most conducive to the determination of the truth.

4. All hearings shall be tape recorded. Transcriptions and a transcript shall be available at all times to parties directly involved, at their own expense.
5. Immediately following the hearing, the Hearing Board shall submit the recommendation to the President. The President and/or Governing Board will make the final decision.
6. The decision of the President to suspend shall be given to the student in writing within a five (5) school day period; the decision of the Governing Board to impose expulsion shall be given to the student in writing within two regular Board meetings.

THE OFFICE OF JUDICIAL AFFAIRS

The Office of Judicial Affairs is responsible for student conduct and disciplinary procedures of the college. Inquiries should be directed to the Coordinator of Judicial Affairs, Mr. Patrick Callahan, in the Office of Student Activities or by calling (562) 860-2451, Ext. 2472

TITLE IX POLICY

No person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any "...education program of activity which. . ." benefits from Federal financial assistance. (Title IX of the Education Amendments of 1972.)

It is the policy of the State of California to afford all persons, regardless of their sex, equal rights and opportunities in the educational institutions of the state. (Education Code sections 200-264.)

In compliance with Title IX, Cerritos College's educational programs and activities are offered to the total Community without regard to sex. Questions regarding Title IX policies affecting the educational program should be directed to the Dean of Academic Affairs, Dr. Adolph Johnson, Jr., in the Office of Academic Affairs or by calling (562) 860-2451, Ext. 2228.

EQUAL OPPORTUNITY POLICY

Cerritos College believes in a close relationship among students, faculty, staff, and community. The District is strongly committed to achieving staff diversity and the principles of equal opportunity employment. The District encourages a diverse pool of applicants and does not discriminate on the basis of race, color, national origin, ancestry, sex, age, religion, marital status, disability, or sexual orientation in any of its policies, procedures or practices. In fact, the college encourages applications from all segments of qualified people. Questions concerning the application of the policy may be addressed to the Human Resources Office by calling (562) 860-2451, Ext 2284.

SECTION 504 / AMERICANS WITH DISABILITIES ACT POLICY

Cerritos College supports the idea that no person shall, on the basis of a physical or mental disability, be unlawfully subjected to discrimination under any program or activity offered under the control of the college. Any student, applicant for admission, employee or applicant for employment who believes he or she has been subject to a discriminatory action on the basis of a physical or mental disability may file a complaint through the following procedures. An individual may also file a complaint directly with the Office of Civil Rights.

COMPLAINT PROCEDURE

The complaining party should first discuss the complaint with the individual(s) involved or with the Cerritos College Section 504/ADA Coordinator (Robert Hughlett, (562) 860-2451, Ext. 2334 or by e-mail at hughlett@cerritos.edu.). The 504/ADA Coordinator will contact all parties concerned and attempt to reach some resolution of the problem. If the complaint cannot be formally resolved within ten working days, the complaining party may then proceed to file a formal complaint. The informal complaint procedure is optional.

STUDENT ORGANIZATIONS

Students are encouraged to participate in campus organizations. Cerritos College offers a variety of campus clubs and organizations for every phase of campus life. They provide opportunities for students in social, service, curricular, and special interest programs.

The club program consists of approximately 60 clubs on campus. Every year new clubs are chartered as they are requested by students.

Every club on campus is a part of the Inter Club Council which meets regularly to discuss activities, projects and problems pertaining to its members.

Students with a 2.0 G.P.A. and currently enrolled may join a club. Clubs meet on the 2nd and 4th Tuesday of each month. Information concerning clubs may be obtained in the Office of Student Activities.

The Associated Students also co-sponsors with the District such activities as Athletics, Choir, Band, Forensics, Drama, and Talon Marks.

ATHLETICS

Cerritos College is a member of the South Coast Conference. Cerritos men's teams are represented in: Baseball, Basketball, Cross Country, Football, Golf, Soccer, Swimming, Tennis, Track & Field, Water Polo, and Wrestling.

Cerritos women's teams are represented in: Basketball, Cross Country, Soccer, Softball, Swimming, Tennis, Track & Field, and Volleyball

DISABLED STUDENT PROGRAMS AND SERVICES POLICY

Cerritos Community College District affirms its programs and activities are available to all qualified persons without regard to disability. The College is also subject to Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act.

The primary objective of the Disabled Student Programs is to mainstream disabled students into general campus programs and activities to the greatest extent feasible. The ability of each disabled student to function independently in the collegiate environment is the ultimate goal. Inquiries regarding the Disabled Students Program or the District's non-discrimination policy relative to Section 504 should be directed to the Director of Disabled Student Programs and Services, Dr. Robert Hughlett or by calling (562) 860-2451, Ext. 2334.

DISABLED STUDENT PROGRAMS AND SERVICES

Individuals with limitations due to a disability may receive support services and instruction from one or more of five programs at Cerritos. Those with mobility, visual, hearing, speech, psychological and other health impairments as well as learning and developmental disabilities are served. All students are provided with an initial interview, counseling and referral as needed through Central Intake and Services (C.I.S.). Additional non-classroom related assistance for all qualified students includes: registration, campus orientation, placement tests, elevator key, parking, matriculation and support with disability management issues. Special instruction and services which are classroom related are provided through the Centers described below. For further information or an initial appointment contact C.I.S. at (562) 860-2451, Ext. 2333, or visit our website at http://www3.cerritos.edu/student services/dsps/index.html.

RESOURCE CENTER: The Resource Center assists students with mobility or other health limitations. The services available include: In-class aides, note taking, tutoring referral, test-taking, disability management, textbooks on tape, liaison with instructors and other campus offices, community agency resource information, referral for special instruction, wheelchair loan and storage, calculator and tape recorder loan, use of modified typewriters and specialized equipment, liaison with the Department of Rehabilitation and other agencies, information and referral to Counseling and Guidance and adaptive physical education classes.

INSTRUCTIONAL SUPPORT CENTER: The Instructional Support Center serves students who are learning disabled, developmentally delayed and those with acquired brain injuries. Services available include: learning disability eligibility assessment, pre-registration, disability management, textbooks on tape, liaison with instructors and other campus offices, community agency resource information, referral for special therapy and adaptive physical education, tape recorder and calculator loan, liaison with Regional Center and other agencies. Classes are offered four days per week and are open-entry/open exit. Instruction is designed to prepare for credit enrollment in the college. A lab is also available for students to receive support in other credit courses.

SPEECH, LANGUAGE, AND HEARING CENTER: The Speech, Language and Hearing Center offers assistance to those individuals with communication difficulties due to speech, language or hearing impairments. Individual and small group instruction is provided to students having difficulty with articulation, voice, language, aphasia, hearing impairments, and stuttering. Interpreters, notetakers, referral to appropriate services and specialized instruction in the basic skills are also available for the hearing impaired.

HIGH TECH MICROCOMPUTER CENTER: All visually impaired and those other disabled students who would benefit from microcomputers specifically adapted to accommodate various disabilities are also encouraged to consider the High Tech Microcomputer Center located in the Instructional Support Center. Specialized programs for the learning disabled, large screen software and screen readers for the visually impaired, word prediction word processing and keyboard modification for the physically disabled are some of the possibilities.

RANCHO LOS AMIGOS MEDICAL CENTER: Patients of Rancho Los Amigos Medical Center in Downey may attend college courses at the facility. In addition to assistance in the basic skills of reading, writing and computation, instruction in multi-clerical skills is available. The sessions are held four days per week throughout the year and may be entered at any time. The satellite campus at Rancho is designed for students who are inpatients or outpatients of Rancho..

ACCIDENT INSURANCE

Accident insurance is provided by Cerritos College to registered students in the event of an accident or injury during college sponsored and supervised activities. It may assist in covering medical bills incurred by students and athletes. There are benefit limitations and some exclusions in the policy, so it is important to work with the Student Health Services Staff to insure optimum coverage. Students enrolled at Cerritos College, whose children are injured while using the officially designated childcare facility on campus, are covered by Accident Insurance. If you have any questions concerning Student Health Services contact the Student Health & Wellness Center at extension 2321.

HEALTH INSURANCE

Supplemental insurance is available on a voluntary basis for health and hospitalization coverage. Students must contact the Student Activities Office or Student Health Services for insurance information and application.

HEALTH SERVICES

Health services are available to all students currently enrolled at Cerritos College upon proof of enrollment. First aid and referrals are available to all faculty, staff and visitors at no cost. The Student Health Services is staffed by a group of professionals that include physicians, nurse practitioners, registered nurses, medical assistants, and clerical support. They are all dedicated to your health and wellness. The SHS is able to provide basic outpatient services for the diagnosis and treatment of acute and sub-acute illnesses and injuries. A brief overview of services includes urgent care, preventive care, women's and men's health care, as well as, psychological, chiropractic, and optometric services, and a variety of support services (pharmacy, laboratory, health education, etc.). Accident, International student, and supplemental insurances are also available through the SHS. We invite you to visit our website at www.cerritos.edu/health or call (562) 860-2451, extension 2321. We are located on the southeast corner of campus and would like to extend an invitation for you to stop in and visit us anytime.

PSYCHOLOGICAL SERVICES

Psychological services and crisis intervention are available to students experiencing emotional problems or concerns. These services are a benefit of your student health fee and are provided by specially trained mental health professionals. Please contact the Student Health Services at extension 2321 for assistance or visit our website at www.cerritos.edu/health.

STUDENT I.D. CARD

It is imperative that all students be in possession of their student identification card at all times while on the Cerritos College campus. This card is necessary for "buy-backs" in the College Bookstore and it is important to present if library privileges are to be enjoyed.

An I.D. card can be obtained from the Student I.D. Center which is located in the game room between the Food Court and the College Bookstore.

Regular Hours

During fall and spring semesters, 9:00 a.m. to 7:00 p.m., Monday through Thursday.

During summer sessions, 9:00 a.m. to 1:00 p.m., Monday through Thursday.

Extended Hours

During fall and spring walk-in registration, 9:00 a.m. to 7:00 p.m., Monday through Thursday and from 9:00 a.m. to 4:00 p.m. on Friday.

If a student has special circumstances and cannot be available to obtain the identification card during any of the hours listed above, arrangements can be made by calling (562) 860-2451, ext. 2480.

COLLEGE BOOKSTORE

The Cerritos College Bookstore is maintained by the Follett Higher Education Group in association with the ASCC. The store carries required materials, new and used textbooks, reference materials, school supplies, snacks, imprinted gifts and clothing. MasterCard, Visa, American Express, and Discover are accepted. Fall and spring

semester regular hours are: 7:30 a.m. – 7:00 p.m., Monday through Thursday; 7:30 a.m. – 2:00 p.m., Friday; closed on Saturday and Sunday. Special store hours are in effect during the beginning of classes, graduation, and other special events. Please call the Bookstore at (562) 860-2451, Ext. 2462, for more information.

USED BOOK BUYBACK AT THE BOOKSTORE

The bookstore arranges several formal buybacks during the school year, but will buy back a book anytime throughout the year. The Bookstore shall purchase used textbooks adopted for the next academic term in quantities sufficient to meet course requirements at not less than 50% of the retail price. The Bookstore shall purchase used books not adopted for the next academic term or in excess of course requirements as published national market value.

The Bookstore will accept returns in accordance with the following policies:

1. Non-textbook items in resalable condition may be refunded or exchanged within 48 hours with original receipt.
2. Textbooks in resalable condition may be refunded with receipt within seven (7) calendar days from the start of classes or within two (2) days of purchase thereafter, including during summer term.
3. Textbooks purchased during the last week of classes or during exams may be sold back under the book buyback policy.
4. Computer software may be returned if it is unopened and shrink-wrapped.
5. In addition, upon proof of drop/add, the Bookstore will accept textbook returns from students who have dropped a course up to thirty (30) days from the start of classes or until the end of the official drop/add period, whichever comes first.

BOOKSTORE REFUND POLICY

1. Non-textbook items may be refunded or exchanged within 48 hours with the original receipt, providing the merchandise is in resalable condition.
2. Textbooks may be refunded with receipt within seven (7) calendar days from the start of classes or within two (2) days of purchase thereafter.
3. During the summer term, textbook refunds with a receipt will be given within seven (7) calendar days from the start of classes or within two (2) days of purchase thereafter.
4. Textbooks purchased during the last week of classes or during exams may be sold back under the book buy policy.
5. Computer software may be returned, providing it is unopened and shrink-wrapped.
6. In addition, upon proof of drop/add, the Bookstore will accept course material returns (textbooks) from students who have dropped a course up to thirty (30) days from the first day of classes or until the end of the official campus drop/add period, whichever comes first.

Bookstore managers may lengthen refund time periods or allow exceptions to any of the above if circumstances warrant.

FOOD SERVICES

A food court and cafeteria are located in the Student Center. The food court is open Monday through Friday from 7:20 a.m. to 8 p.m.; the Cafeteria is open 11:00 a.m. to 1:00 p.m. Monday through Thursday during the fall and spring semesters. Vending machines are located throughout the campus.

CAREER SERVICES CENTER

Job Placement-Student Employment Office

Cerritos students and alumni who are looking for employment may apply at the Job Placement desk, located in the Career Services Center. Employment opportunities from many local businesses, industrial and governmental agencies are available on the web and in binders on the Job Placement counter.

Full and part-time jobs are available, as well as student internship positions through the Student Training and Employment Placement Program. Employment listings may be viewed at the Career Services Center or through the Internet at http://www.monstertrak.com

Job Placement Services is open Monday through Thursday, 8:30 A.M. to 7:00 P.M.; and Friday, 8:30 A.M. to noon. For more information call (562) 860-2451, Ext. 2366, "e-mail" jobplacement-info@cerritos.edu, or visit us at http://www.cerritos.edu/career-services/job-placement

Career Center

As part of our commitment to student success, the Career Center will assist students who are undecided about their majors and/or their vocational goals. Comprehensive career counseling and information resources are available to aid in that process. The Career Center is located in the Administration Building and is open Monday through Thursday, 8:30 A.M. to 7:00 P.M.; and Friday, 8:30 A.M. to noon. Call (562) 860-2451, Ext. 2356 for more information.

Re-entry Resource Program

The Re-entry Resource Program assists adults returning to school make a smooth transition, overcome barriers unique to returning adults, and successfully attain their college goals and objectives.

Services include personal assistance, orientations, workshops based on re-entry student issues, support groups, and information regarding child care, financial aid, career counseling, job placement and community resources. Re-entry students of varied ages find these services relevant to their needs and interests.

The Re-entry Resource Program is located in the Career Services Center and is open Monday through Thursday, 8:30 A.M. to 7:00 P.M.; and Friday, 8:30 A.M. to noon. Call (562) 860-2451, Ext. 2362 for more information.

CalWORKs

The CalWORKs program at Cerritos College exists to assist students who are receiving Temporary Assistance for Needy Families (TANF). The program provides counseling and educational planning, referrals to campus and community-based organizations, up-to-date information regarding Welfare Reform rules and their impact on students, job search assistance, childcare agency referrals, and post employment services. For eligible students, the CalWORKs program also provides payment for childcare during class and work hours. For more information about the CalWORKs program, or to find out if you are eligible for paid childcare, please call (562) 860-2451, ext. 2356 and make an appointment with a CalWORKs counselor.

INTRAMURALS

An active intramural program is provided for Cerritos students and all students are encouraged to make use of the extensive sports facilities on campus.

TRANSFER CENTER

The Transfer Center is designed to increase the transfer rate of Cerritos College students to four-year colleges and universities. The Transfer Center has been charged with the responsibility to give priority to underrepresented students. The Transfer Center provides information on transfer programs, general education requirements, advising, and personal contact with representatives from colleges and universities. The Transfer Center is located in the Administration Building and office hours are 8:30 A.M. to 7:00 P.M., Monday through Thursday, and 8:30 A.M. to noon on Friday. Call (562) 860-2451, Ext. 2154, for further information.

CHILD DEVELOPMENT CENTER

A Nationally Accredited, State Licensed Child Development Center is available for children, ages 2 years, 9 months through Kindergarten. Its purpose is to provide an educational program which helps the individual child grow to his/her fullest potential. The Center focuses on developmentally appropriate activities to foster respect for cultural diversity by providing multicultural, anti-bias, and non-sexist activities in curriculum. The program features Sensory Development, Language Arts, Math, Science, Dramatic Play, Art, Music, Fine & Gross Motor Development, and Social Studies. Registration for the Center takes place each semester on a first-come, first-served basis considering space available, age of child, and readiness for group care. Students, staff and the community may use the Center. Physical examination and T.B. Test results must be available at time of enrollment and cannot be over one year old. Current, up-to-date Immunization Records must also be available. Students interested in these services should contact the Child Development Center at (562) 467-5051 or 860-2451, Ext. 2583.

FOSTER AND KINSHIP CARE EDUCATION PROGRAMS

Foster and Kinship Care Education programs provide foster parents and relative caregivers with educational workshops to enhance and develop parenting skills related to caring for the children in their care. Emancipating foster youth also have the opportunity to take classes to learn independent living skills.

There are four programs under the Foster and Kinship Care Education umbrella: ***1) Foster Care Renewal Courses***, which give foster parents the opportunity to take topical courses, which are required in order to keep the foster parent license, ***2) The Model Approach to Partnership in Parenting (MAPP)*** is a 36-hour training conducted for prospective foster parents, as is required by the Department of Child and Family Services (DCFS), ***3) Kinship Education, Preparation and Support (KEPS)*** is designed to help care providers who are raising a relative's child. This training is required of all Kinship providers who are working with the Department of Family and Social Services, but is open to all kinship providers in the community, and ***4) Independent Living Skills Program (ILP)***, is offered to 16-18 year-olds to teach basic living skills. This gives the teenagers the chance to learn the knowledge and skills that they will need in order to live on their own once they leave the foster care system.

All of the classes are free to participants. Classes are mainly held on site in Research And Development, room nine. Foster Care renewal courses are also held at Faith Church in Norwalk. To obtain more information or to register for classes, please contact 562-860-2451 ext. 2578.

LIBRARY / LEARNING RESOURCE CENTER

The Cerritos College Library/Learning Resource Center (LRC), located near the center of the campus, provides a wide range of materials and services. Both students and district residents are invited to use the Center and apply for a library card. Disabled students have easy access throughout the building via ramps and elevators.

Patrons enjoy ready access to over 90,000 books, 2,000 pamphlets, 400 magazine and newspaper subscriptions, and 3,500 microfilm reels in an open stack arrangement. The automated catalog provides access to the Internet and online access to over 3,200 periodicals and journals. All library materials are carefully selected by classroom faculty and library faculty as integral resources to the Cerritos College instructional program. The Reserve Book Area, at the circulation desk, permits students to check out high-demand materials for limited periods of time.

A wide range of informational brochures on such topics as using the online catalog, periodical indexes, and reference materials are available without charge. Copies of Library produced bibliographies and pamphlets are also provided to faculty.

The Library provides typewriters for patron use. Computers available for student use can be found on the lower level of the LRC in LC 102. Photocopiers are located in the Library for self-service copying.

Instructional Media Services, also located on the lower level, provides instructional support for the entire campus as well as satellite locations. Included in this area are graphic art and photography production studios, an audio-video production studio, a film booking and video tape center, facilities for maintenance and repair of audio-visual equipment, and an equipment booking and delivery center.

Instructional Media also maintains and supervises several video production and closed circuit video systems on the campus, including Speech, Cosmetology, Dental Assisting, and Health Occupations.

The Independent Study Center (LC-114), located on the lower level of the LRC, houses several thousand audio and videotapes, filmstrips, slides, and other media materials for student use. A computer assisted attendance system permits rapid check-in and checkout by students.

All areas of the Library/LRC are staffed with qualified personnel eager to help you. The facility is open during the regular school year Monday through Thursday, 7:30 a.m. to 10 p.m., Friday, 7:30 a.m. to 4:30 p.m. The Library is also open 9 a.m. to 5 p.m. on Saturday, and Sunday, 1 p.m. to 5 p.m.

ACADEMIC SUPPORT CENTER

The Academic Support Center (formerly the Learning Assistance Program) has been established to serve the needs of faculty and students across the campus. ASC has set out to provide academic support for all levels of students. This is being done by offering tutoring in virtually any subject; by working with instructors to enhance course offerings, including involving instructors with supplemental instruction; by offering a variety of educational measurements to determine specific needs of students; by providing skills-specific workshops designed to help student succeed in their classes; and by providing a wide range of web-based assistance that can help students and instructors.

All services are free to Cerritos College students. The Academic Support Center is located on the lower level of the Learning Resource Center. Call (562) 860-2451, Ext. 2407 for additional information.

DIRECTORY INFORMATION

Cerritos College will not release personally identifiable data about students without their prior written consent except to persons and agencies authorized by law. The College may make an exception to this, in response to legitimate inquiries, by providing general directory information to include: Name * Date and Place of Birth * Major

Field of Study * Class Level * Dates of Attendance * Degrees and Awards Received * Previous Educational Institutions Attended * Participation in Officially Recognized Activities and Sports * Weight and Height of Members of Athletic Teams.

Currently enrolled students may withhold directory information by notifying the Vice President of Student Services, in writing each term, within two weeks after the first day of instruction. Title 5 (California Administrative Regulations) Section 54626.

CONSENT

Cerritos College may permit access to student records to any person for whom the student has executed written consent specifying the records to be released and identifying the party or parties to whom the records may be released. Such consent must be signed and dated by the student. The recipient must be notified that the transmission of the information to others is prohibited. Title 5 (California Administrative Regulations) Section 54616.

SEXUAL ASSAULT AND ACQUAINTANCE RAPE POLICY

Cerritos College is committed to providing a safe and secure environment for all members of the campus community. The Sexual Assault and Acquaintance Rape policy is in accordance with Assembly Bill 3098 and Section 201, Public Law 101-542 as amended by Public Law 102-26. Sexual assault and acquaintance rape are crimes and will be treated as such. Students and employees who become victims of sexual assault or acquaintance rape are encouraged to report the crime immediately to the Campus Police. The college is dedicated to providing prompt and compassionate services to all crime victims. In the event of a sexual assault on campus, the chief of Campus Police will notify the President/Superintendent.

SEXUAL HARASSMENT

It is the policy of the Cerritos Community College District to provide an educational, employment and business environment free of unwelcome sexual advances, requests or offers for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by federal and state statutes.

The President-Superintendent shall provide regulations and procedures for implementation of this policy and such regulations and procedures shall be included as a part of the District's Affirmative Action/Staff Diversity Program.

It shall be a violation of this policy for anyone who is authorized to recommend or take personnel or academic actions affecting an employee or student, or who is otherwise authorized to transact business or perform other acts or services on behalf of the Cerritos Community College District, to engage in sexual harassment as defined below.

Sexual harassment occurs when unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature takes place and:

1. Is made explicitly or implicitly a term or condition of an individual's educational status or employment; or
2. Is used as a basis for educational or employment decisions affecting such individual; or
3. Has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive educational or working environment; or
4. Is used as the basis for any decision affecting the individual regarding benefits and services, honors, programs, or activities available at or through the District.

For the purpose of further clarification, sexual harassment includes but is not limited to:

1. Making written, verbal, physical and/or visual contact with sexual overtones:
   a. written examples include but are not limited to suggestive or obscene letters, notes, or invitations.
   b. verbal examples include but are not limited to derogatory comments, slurs, jokes, epithets and/or promulgating sexual rumors.
   c. physical examples include but are not limited to assault, touching, impeding or blocking movement.
   d. visual examples include but are not limited to leering, gestures, or display of sexually suggestive objects, pictures, cartoons or posters.
2. Continuing to express sexual interest after being informed that the interest is unwelcome. (Reciprocal attraction is not considered sexual harassment.)
3. Making reprisals, threats of reprisals, or implied threats of reprisals following a negative response. For example:
   a. within the work environment - either implying or actually withholding support for an appointment, promotion, or change of assignment, suggesting a poor performance report will be prepared, or suggesting probation will be failed.
   b. within the educational environment - either implying or actually withholding grades earned or deserved, suggesting a poor performance evaluation will be prepared, or suggesting a scholarship recommendation or college application will be denied.
4. Within the work environment, engaging in implicit or explicit coercive sexual behavior which is used to control, influence, or affect the career, salary, and/or work environment of another employee. Within the educational environment, engaging in implicit or explicit coercive sexual behavior which is used to control, influence, or affect the educational opportunities, grades, and/or learning environment of a student.
5. Offering favors or educational or employment benefits, such as grades or promotions, favorable performance evaluations, favorable assignments, favorable duties or shifts, recommendations, reclassifications, etc. in exchange for sexual favors. It shall also be a violation of this policy for any employee to sexually harass another employee.

Formal complaints under this policy shall be processed through the District's Investigation and Resolution of Complaints of Unlawful Discrimination procedure through the Manager of Employment Services/Faculty and Staff Diversity Officer and the President-Superintendent.

Honors and Awards

The Associated Students offers a number of honors and awards to students for outstanding leadership, service, and academic achievements.

ALPHA GAMMA SIGMA

Alpha Gamma Sigma is a statewide honor scholarship society. The fundamental purpose of the organization is to promote and maintain scholastic and social leadership. The following types of membership are available:

INITIAL MEMBERSHIP A person may attain initial membership if he/she has completed 12 semester (or quarter equivalent) units in a maximum of 3 semesters or 5 quarters at any recognized institution of higher education and has a cumulative grade point average of 3.0. No units acquired more than two years prior to application for initial membership shall be used prohibitively.

TEMPORARY MEMBERSHIP All life members of the California Scholarship Federation and those who graduated with a minimum G.P.A. of 3.5 at the high school level shall be invited to become temporary members during their first semester in a community college and shall have, upon payment of dues, all the privileges of membership except that of holding a state elective office.

CONTINUING MEMBERSHIP An initial member may attain continuing membership by:

a. Achieving for the previous semester or quarter not less than a 3.0 G.P.A. in courses of recognized college standing, OR
b. Maintaining a cumulative G.P.A. of 3.0 or better in courses of recognized college standing.
c. Continuing members will receive one semester or quarter's grace for every semester or quarter of earned continuing membership if the member's G.P.A. falls below 3.0. There shall be no two consecutive grace periods.

PERMANENT MEMBER A permanent member is any person who has completed a minimum of 60 semester units or quarter equivalent units of college courses, with a minimum 30 units completed at a community college. A member must apply for permanent membership and meet either of the following requirements:

a. A person who has maintained a cumulative G.P.A. of 3.5 or better in all recognized college work and has been a member of AGS, Inc., for at least one term.
b. Any continuing member who has maintained a cumulative G.P.A. of 3.25 or better in all recognized college work and has been a member of AGS, Inc., for at least two terms.

Any courses completed two years or more prior to application for permanent membership, whether at a community college or other institution, shall not be used to prohibit any person from becoming a permanent member, provided that these units not be used to meet the minimum requirement of 60 semester units.

DEAN'S LIST

Full-time students with 12 units earned or more of college-level courses in a single semester and who achieve a 3.5 grade point average or higher within those units earned will qualify for the Dean's List.

HONOR GRADUATES

The honor graduates are identified by the silver tassel they wear on their cap. Graduates who achieved a 3.3 to 3.69 grade point average will graduate "With Honors." Those receiving a 3.70 to 4.0 will graduate "With Highest Honors."

Only units earned at Cerritos College may be used in computing the grade point average for honor graduates. To be considered for honor status a minimum of 24 units must be earned at Cerritos College. If you are a Spring or Summer graduate, your honors for Commencement are based on your GPA up to and including the previous Fall semester.

ACTIVITY AWARDS

The Gold and Silver Falcons are the highest and most prestigious awards that are given to students for service, leadership and scholarship each semester.

Bronze Falcons are awarded to students who excel in leadership and participation in programs sponsored by the Associated Students of Cerritos College.

Service Certificates are awarded in recognition of service and participation in programs sponsored by the Associated Students of Cerritos College.

CURRICULAR GROUP AWARDS

The Associated Students recognizes and rewards various activity groups on campus, such as: Intercollegiate athletics, Band, Forensics, Talon Marks, Theatre, Choir, Pep Squad and Honor Society. In addition to these, clubs and organizations are also recognized and honored for their service and participation in the various programs.

ATHLETIC AWARDS

The Associated Students of Cerritos College has an excellent athletic awards system for all intercollegiate athletics. This recognition is in the form of banquets, letters, certificates, key chains, plaques, and lifetime passes.

ACADEMIC EXCELLENCE AWARDS

The Cerritos College Foundation annually sponsors an awards program for those students selected for outstanding academic achievement from the various subject matter areas on campus.

Academic honors are awarded to students who do outstanding work in their major field of study. Students must show promise, possess a current Associated Student Body card, have above average grades, and be recommended by the instructors in their major field.

RETENTION AWARDS PROGRAM

For details see page 15.

Student Financial Aid

Cerritos College administers comprehensive student financial aid programs to assist students in meeting college costs. The amount of financial aid awarded varies from student to student, depending on the individual's need and resources.

Financial Aid awards are based on calculated financial need as determined by the Free Application for Federal Student Aid (FAFSA).

The Financial Aid Office is part of the Student Affairs department and is located in the Administration building. Office hours are Monday and Tuesday, 10 a.m. - 2:00 p.m.; Wednesday and Thursday, 10:00 a.m. - 6:30 p.m., and Friday, from 9:00 a.m. - 12:00 noon.

Financial aid applications are available year round. The Cerritos College Student Financial Aid Title V Institutional Code is 001161. Students applying for Federal financial aid must have a high school diploma or equivalent.

When applying for financial aid, students may be required to submit official academic transcripts from ALL colleges/universities attended. These transcripts will be forwarded to the Office of Admissions and Records. Without this information, a delay may occur in the completion of a student's file, or be cause to close a student's file.

The Financial Aid Office will pay for units enrolled up to 70 degree applicable units. Once a student reaches the 70 unit level, a student is no longer eligible for financial aid. However, a student may appeal and submit a "lock-in-list" to the Financial Aid Advisory Committee (FAAC). Again, it is important to have ALL academic transcripts sent to the college and evaluated as soon as possible because it may affect a student's financial aid eligibility.

It is suggested that students take the Assessment Battery Test, complete the financial aid supplemental forms, and schedule an appointment with an academic counselor to prepare a pre-plan each semester. Students must also enroll in courses recommended by their counselor, which lead to a certificate, associate degree, or transfer major. A 2.0 cumulative grade point average must be maintained for all college work to be eligible for financial aid. All students on financial aid must meet the satisfactory academic standards outlined in the Financial Aid Satisfactory Academic Progress (SAP) Standard brochure.

Since the application process is a lengthy one, sometimes taking several months, students should plan ahead to have sufficient funds to cover fees, books and supplies.

Pell Grant checks are mailed three times a semester to students. Disbursements will take place (approximately) the first, fourth, and twelfth week of the Fall and Spring terms.

For additional information on financial aid, students are encouraged to visit the financial aid website at www.cerritos.edu/finaid or contact the Financial Aid Office at (562) 860-2451, extension 2397.

FEDERAL PROGRAMS

Federal Pell Grants are awarded to eligible undergraduate students. The amount of money awarded is based upon a student's Expected Family Contribution (EFC), the number of units enrolled, and the cost of attendance.

Approximately four weeks after a student has mailed his/her application, a Student Aid Report (SAR) should arrive at your home. This report MUST be submitted directly to the Financial Aid Office to initiate your file.

Federal Supplemental Educational Opportunity Grant (FSEOG) is a campus based program with limited funding. This program is awarded by the school for students who have an exceptional need and have an expected family contribution (EFC) of 0.

Federal Work-Study (FWS) is a campus based program with limited funding which provides employment to help pay for part of a student's educational costs. This program is based on financial need and, if awarded, is part of your financial aid award. Students on FWS may work up to 15 hours per week on or off campus. Students are assigned to a work site by the FWS coordinator.

Federal Subsidized and Unsubsidized Stafford Loans are student loans, which must be repaid. Although these loans are made through lending institutions such as a bank, you MUST apply for financial aid first. Once a student receives a financial aid award letter, the student may apply for a student loan. The amount of loans range from $2,625 to $3,500 per academic year.

To be eligible for $3,500, a student must have at least 30 units completed and these units MUST appear on the student's official academic transcript record at Cerritos College. Loan amounts will be determined at the time the Financial Aid Office certifies a student's loan application.

Both entrance/exit counseling are requirements of the Federal Family Educational Loan (FFEL) Program. Students must maintain at least half-time enrollment status to receive the funds. Once you have received your loan funds, you must maintain at least half-time enrollment to avoid going into repayment. You also must maintain reasonable progress toward your certificate or degree.

Any student who is interested in the second loan, the Stafford Additional Unsubsidized loan ($4,000), must be an independent student and appeal to the Financial Aid Advisory Committee (FAAC). Appeal forms are available at the Financial Aid Office. In reviewing a request for any loan, the Financial Aid Advisory Committee may use "professional judgement" to deny a student loan on a case-by-case basis. If denied a loan, a student will receive a letter from the Financial Aid Office indicating the reason(s) for the loan denial.

Please refer to the Student Loan Default Management Plan available at the Financial Aid Office for additional information.

Bureau of Indian Affairs (BIA) is a grant provided to eligible American Indian students. To be eligible you must be at least one-fourth American Indian, Eskimo, or Aleut as certified by tribal agencies served by the Bureau of Indian Affairs. You must be enrolled or plan to enroll as an undergraduate student on a full-time basis, or meet the enrollment requirements set up by your tribe.

BIA grants are not awarded automatically. It is important that you apply early to meet the deadlines set by the BIA. You cannot apply directly through the Financial Aid Office. All BIA applicants must also complete the Application for Federal Student Aid. You must request the BIA Grant Application from your tribe.

STATE PROGRAMS

The Cal Grant Program is a state funded educational opportunity program to assist students in paying for a college education. There are entitlement awards as well as competitive awards. Application deadlines are in early March and September for community college students.

All basic Cal Grant eligibility requirements are as follows: a) be a California residents, b) be a U.S. citizen or eligible non-citizen, c) meet U.S. Selective Service requirements, d) attend a qualifying California postsecondary institution, e) be enrolled at least half-time, f) maintain satisfactory academic progress as defined at the school of attendance, g) have family income and assets below the established ceilings, h) No be in default on any student loan, and i) not owe any federal or state grant refund.

Cal Grant A Entitlement Awards are for students who plan to attend a four-year college or university and are based on academic achievement

as well as financial aid need. You may apply for a Cal Grant A while you are attending Cerritos College. If you are awarded one, you may place it on reserve until you transfer to a four-year college. This grant is renewable for up to three years, provided you remain eligible. Cal Grant A pays all or a portion of tuition and fees at your designated four-year institution. Cal Grant A provides no funds for books, living costs, transportation expenses and provides no funds for fees at the community college.

Cal Grant B Entitlement Awards requirements include financial and basic eligibility, a minimum 2.0 GPA, and be a recent high school graduate. This Entitlement Award provides up to $1,551 for books and living expenses for the first year. Beginning with the second year of Cal Grant B benefits, this award also helps pay for tuition and fees at public or private four-year colleges or other qualifying institutions.

Cal Grant C Awards are available to assist students with tuition, fee, and training costs for occupational or vocational programs. The $576 Cal Grant C award provides for books, tools, and equipment. To qualify for Cal Grant C awards, students must meet basic eligibility requirements and be enrolled in a vocational program that is at least four months in length. For more information, visit the California Student Aid Commission website at www.csac.ca.gov.

California Community College Transfer Entitlement Awards: Students who meet financial and basic eligibility requirements, have a minimum 2.4 GPA from a California Community College, and are recent high school graduates are eligible for this award when transferring from a community college to a four-year institution. This Entitlement Award is offered to California Community College students who were not awarded a Cal Grant within a year of graduating from high school, but meet certain requirements at the time of transfer from a California Community College to a qualifying institution offering baccalaureate degree programs.

Extended Opportunity Program and Services (EOPS) is a State funded program to provide educationally and economically disadvantaged students assistance, which includes grants, EOP nomination waivers, admission waivers to UC and CSU, and transfer assistance. Moreover, the EOPS Program provides a number of retention programs such as Supplemental Instruction (SI), and learning communities in the Achievement in Mathematics (AIM) program, and Summer Bridge program. All three programs involve social and academic integration activities for students outside of the classroom. Courses in these programs are taught by a faculty member and faculty counselor.

Admission into the EOPS Program requires that a student meet either BOGG A or B standard, complete an application form, enroll in 12 units, and meet with an EOPS counselor three times during each semester, and have earned less than 70 degree applicable units from ALL colleges/universities attended.

EOPS/CARE Grant is available to students who are current recipients of TANF/CalWORKs, single, head of household, have at least one child under the age of 14, enrolled in 12 units or more, and have been admitted into the EOPS Program. You are required to attend a Mini-Conference/Orientation and workshops and may be eligible for a grant and/or services.

Board of Governors Grant (BOGG) is a program that provides assistance to cover community college enrollment fees. To be eligible, you must be a California resident and must qualify under one of the following conditions:

1. You or your parents must currently be receiving Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI) or General Relief. Documentation is required; or
2. You must meet income standards based on your family size. Documentation is required; or
3. You must have already applied for federal/state aid and demonstrate financial need.

SCHOLARSHIPS

Scholarships are like grants, they do not have to be repaid. The Financial Aid Office is the steward of a number of scholarships, which may or may not require financial need. Applications are available in the Financial Aid Office. For information on scholarships, visit www.cerritos.edu/finaid/scholarship.htm.

OFFICE OF VETERANS AFFAIRS

The Office of Veterans Affairs offers information regarding applications and certification for benefits for those eligible for Montgomery G.I. Bill, Selected Reserve, VEAP, Vocational Rehabilitation, or Survivors and Dependents of deceased or disabled veterans.

Staff are available to provide help with processing applications and to do check inquiries to the Veterans Administration. Veterans must maintain district academic progress as outlined in the college catalog. In order to receive benefits, veterans must declare a major and will only be paid for classes required for that major as designated by an academic counselor.

Veteran Affairs Office service hours are Monday, 12:00 to 2:00 P.M.; Tuesday, 3:00 to 5:00 P.M.; and Wednesday, 5:00 to 7:00 P.M.; or students can call (562) 860-2451, extension 2104 for information. The Veteran Affairs Office is located in the Financial Aid Office in the Administration building.

Associate in Arts Degree Graduation Requirements

The California Community College Board of Governors has authorized the Cerritos College Board of Trustees to confer the Associate in Arts Degree. A candidate does not automatically receive the Associate in Arts Degree upon completion of unit and course requirements, but is required to file a petition for the degree.

College education is usually thought of as consisting of two parts, specialized education and general education. Specialized education is that which prepares the student for vocational competence or for scholastic attainment in a particular field. This the student accomplishes through the department major.

General education, on the other hand, is that which meets the common goals of all students for personal enrichment and cultural development. Work in this area helps the student increase individual ability as a citizen and improve community, home, and family living.

Although courses may be designed with one or the other of these purposes as the primary gain, all courses are presented with the values of general education in mind. College education then becomes the sum total of all the student's experience in college, and the student's education may be completed in both these areas and be granted the degree of Associate in Arts.

REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE:

SCHOLARSHIP AND RESIDENCE

A. A student must complete 60 units of degree applicable work with a grade point average of "C" or better (2.0) in all courses counted for the degree.
B. A student must achieve a grade point average of "C" or better (2.0) in all course work attempted that is counted for the major.
C. A minimum of 12 units of degree applicable work must be completed at Cerritos College.
D. The student must be in attendance for the semester in which the degree is earned. Exception to this requirement is by petition only.

PETITION FOR ASSOCIATE IN ARTS DEGREE

1. Students desiring an Associate in Arts Degree must file a "Petition for Associate in Arts Degree" form. The petition may be obtained in the Counseling Center and must be submitted before the deadline posted in the College calendar. The petition must be approved and validated by a counselor and the Admissions and Records Office before the degree will be granted.
2. The date on the degree will correspond to the year the degree is earned.
3. Students not in continuous attendance at Cerritos College must meet degree requirements for graduation in effect at the time of readmission.
4. A student is considered in continuous attendance if he/she receives a grade (A,B,C,D,F,CR,NC,I or W) in any semester, fall or spring, during each academic year. Continuous attendance is not broken at Cerritos College if a student transfers to another accredited institution, maintains his/her continuous attendance at that institution, and returns to Cerritos College to complete his/her degree. (Designated programs may require students to return to Cerritos College in good standing. Please check with the Counseling Center regarding these programs.)
5. Credit toward the Associate in Arts Degree is not granted for non-degree applicable units or classes taken as part of the Adult Education Program.
6. There will be a fee charged for any degree granted when the petition is filed after the established deadline.

STUDENTS WITH BACCALAUREATE DEGREES

Those students who have been awarded a bachelor's degree from an accredited college or university in the United States will be exempt from the Cerritos College general education breadth requirements and the proficiency requirements, should they pursue an associate in arts degree at this institution. Please see your counselor or the Dean of Academic Affairs if additional information or clarification is desired.

ADDITIONAL ASSOCIATE IN ARTS DEGREES

Once an A.A. has been obtained, no additional degree may be obtained in General Studies. An additional General-Divisional A.A. Degree may not be obtained if a specific degree has been awarded previously within the same division. Otherwise, a student may earn an additional A.A. Degree by meeting the following conditions:

1. Complete a minimum of seventy-eight (78) units - eighteen (18) degree applicable units beyond the minimum required for the first A.A. Degree. The minimum 78 units must meet the requirements in a different major curriculum. All general education requirements in effect at the time continuous attendance began must be met.
2. If some or all of the major curriculum requirements for the second A.A. Degree were met in the first A.A. Degree and the minimum seventy-eight (78) degree applicable units is not achieved, then additional courses will be planned with a counselor to make-up the difference as described in the procedures. The general education requirements must be met which were in effect at the time continuous attendance began.
3. Upon completion of the required course work, follow the "Petition for Graduation" procedures as detailed for the first A.A.
4. Additional A.A. Degrees may be granted for each eighteen (18) degree applicable additional units completed. For example a third A.A. degree may be earned upon the completion of a minimum of ninety-six (96) units. The requirements to obtain additional degrees are the same as those stated above for a second A.A. Degree.

COMMENCEMENT

Commencement exercises are held once a year at the end of the Spring Semester for all students-for those who were graduated at midyear, those graduating at the end of the Spring Semester, and those who expect to complete requirements for graduation in the Summer Session.

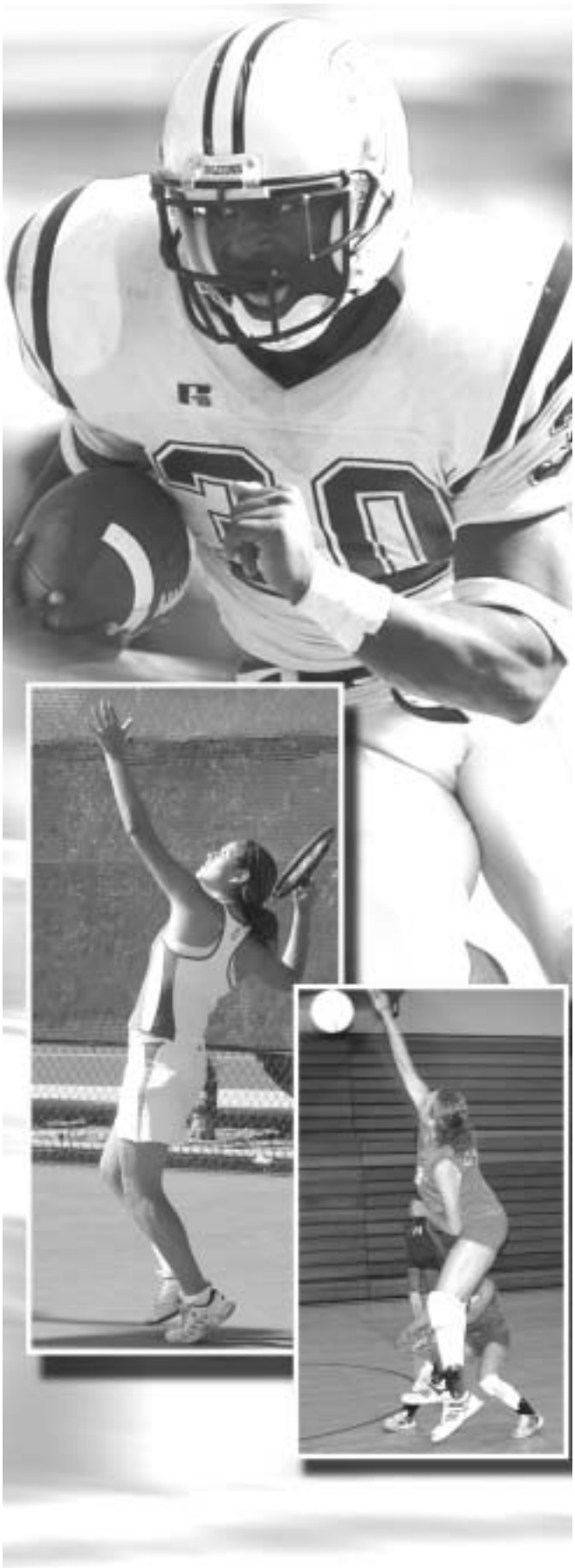
All graduating students are encouraged to participate in the Commencement ceremony which honors their industry and achievement.

CERTIFICATES OF ACHIEVEMENT

Cerritos College is authorized to award a Certificate of Achievement to any student who satisfactorily completes an organized curricula designed for a specific occupational goal. In order to obtain a Certificate, a student must satisfy the following requirements:

1. Complete the course requirements for the chosen program of study as detailed in the "Programs of Study" section of this catalog.

2. Maintain a minimum grade point average of " C" (2.0) in all required courses, including a GPA of 2.0 for all departmental courses specified, as well as a 2.0 for all courses outside the major designated as requirements in the curriculum pattern.
3. A minimum of twelve (12) units of course work within the certificate must be taken at Cerritos College if Certificate of Achievement is to be awarded by this institution.
4. Upon completion of required course work, file a "Petition for Certificate of Achievement" form. The petitions are available in the Counseling Center.
5. Units earned toward the Certificate of Achievement may be applied toward an Associate in Arts Degree.
6. Credit toward the Certificate of Achievement is not granted for classes taken as part of the Adult Education Program.



Associate in Arts Degree Unit Requirements For Graduation 2003-04

A total of 60 degree applicable units including the following requirements must be completed to qualify for the A.A. degree:

1. MAJOR PROGRAM REQUIREMENTS:
   Complete all requirements for the chosen major program under "Major Requirements" in the Cerritos College Catalog.

2. MATHEMATICS PROFICIENCY REQUIREMENT:
   This requirement can be met by one of the following options:
   a. Earn a score on the Intermediate Algebra Readiness test sufficient for placement in a course above the level of MATH 60 or
   b. Completion of MATH 60, CIS 52 or TM 50 with a grade of Credit or "C" or higher, or
   c. For other options, see your counselor

3. READING PROFICIENCY REQUIREMENT:
   a. The reading proficiency requirement is met by successfully completing the Reading Proficiency Test at the 12th grade level. The Reading Proficiency Test may be taken no more than once each semester.
   b. The reading proficiency requirement may be met by completing READ 54 with a grade of "C" or better.
   c. For other options, see your counselor

4. WRITING PROFICIENCY REQUIREMENT:
   Completion of ENGL 52 or ENGL 155 or BCOM 147 with a grade of "C" or better, or completion of ENGL 100 with a grade of "C" or better.

5. HEALTH AND WELLNESS PROFICIENCY REQUIREMENT:
   This requirement can be met by one of the of the following options:
   a. Completion of at least one unit of a Physical Education activity course from the approved department list below:
   Physical Education 120, 121, 122, 123, 124, 125, 130, 131, 132A, 132B, 133, 134, 135A, 135B, 137, 138, 139, 141, 142, 143, 145, 146, 150A, 150B, 151, 153A, 153B, 154A, 154B, 155A, 155B, 156A, 156B, 158A, 158B, 159A, 159B, 160, 170, 171A, 171B, 171C, 172A, 172B, 173, 175A, 175B, 176A, 176B, 177, 178, 179A, 179B, 180, 181, 182A, 182B, 183, 184, 185, 186A, 186B, 187, 188, 189, 193, 194, 195, 196, 200, 201, 202, 204, 206, 207, 208, 210, 211, 212, 213, 217, 219, 221, 222, 223, 225, 227, 228, 229, 231, 233, 234, 235, 236, 238, 239, 241, 243, 245, 254, 255
   b. Completion of HED 100, 103, or 200, TH 140-143, MUS 160-164, HO 100, 151 or 152, CDEC 61 or PE 100.
   c. Enrollment and completion of Allied Health program (DA, DH, RN, PTA, Pharm Tech, MA)
   d. For other options, see your counselor

6. GENERAL EDUCATION REQUIREMENTS: 21-27 UNITS
   Complete the following course requirements as indicated.
   a. NATURAL SCIENCES AND HEALTH EDUCATION: 6 UNIT MINIMUM

   Select one course from two of the three groups listed below:

   (1) PHYSICAL SCIENCES
   Astronomy 101, 102, 103, 104, 105L (LAB), 106
   Chemistry 100 (LAB), 110 (LAB), 111 (LAB)
   Earth Science 101, 101L (LAB), 104, 106, 110 (LAB)
   Energy 110
   Geography 101
   Geology 101 (LAB), 110, 201 (LAB), 204, 207 (LAB), 209 (LAB)
   Physical Science 100, 112 (LAB)
   Physics 50 (LAB), 100 (LAB). 101 (LAB), 201 (LAB)

   (2) BIOLOGICAL SCIENCES
   Anatomy and Physiology 120 (LAB), 130 (LAB), 200 (LAB)
   Anthropology 115
   Biology 105, 110 (LAB), 115 (LAB), 120 (LAB), 200 (LAB), 201 (LAB)
   Botany 120 (LAB)
   Microbiology 200 (LAB)
   Psychology 241
   Zoology 120 (LAB)

   (3) HEALTH EDUCATION
   Health Education 100

   b. SOCIAL AND BEHAVIORAL SCIENCES: 3-9 UNITS
   Select one course from each of the groups listed below:

   Examination Option. The History and Political Science requirements may be satisfied by proficiency examinations. If both exams are passed, the student is required to select three units from b-3 below.

   NOTE: Completion of a U.S. history or government course which fulfills the California State University requirement taken at any accredited institution may be used in lieu of the course requirement.

   (1) History 101, 201, 202, 220, 221
   (This requirement can be met by successfully passing the departmentally administered and evaluated proficiency examination for American History, or receiving a score of 3 or better on the College Board's Advanced Placement Exam, American History, or the College Board's College Placement Test, American History and Social Studies. Unit credit is awarded for passing the AP exam option with a score of 3 or better. Unit credit is not awarded for the departmental exam and only applies to the A.A. degree).

   (2) Political Science 101 or 201
   (This requirement can be met by successfully passing the departmentally administered and evaluated proficiency examination for American Government or the College Board's Advanced Placement exam with a score of 3 or better. Unit credit is awarded for this option. Unit credit is not awarded for passing this department exam option).

   (3) Social and Behavioral Sciences
   Administration of Justice 101
   Anthropology 100, 120, 200, 201, 202, 203
   Child Development/Early Childhood 113
   Counseling and Guidance 200
   Economics 101, 102, 201, 202, 204
   Geography 102, 105, 257
   History 110, 120, 210, 230, 235, 241,242, 245, 246, 250, 255, 257, 260, 265, 270

Political Science 110, 210, 220
Psychology 101, 150, 251, 261
Sociology 101, 110, 120, 201, 210, 215, 225, 230, 250
Speech 110
Women's Studies 101

c. FINE ARTS AND HUMANITIES: 6 UNIT MINIMUM
Note: Courses appearing in more than one category may be used to satisfy only category. Such courses are marked with an *
Select one course from each of the groups listed below:

(1) FINE ARTS
Architecture 110, 112
Art 100, 101, 102, 103, 104, 106, 107, *108, *109, 110, 116, 120, 130A, 144, 150
Humanities: *108, *109
Journalism 100
Music 100, 101, 102, 103, 104, 104B, 105
Photography 100, 160
Physical Education 191
Theatre 101, 102, 103, 104, 110, 150, 151, 152, 159

(2) HUMANITIES
Art *108, *109
English 102, 106, 221A, 221B, 222, 223, 224, 225, 226, 227, 228, 230A, 230B, 232, 233, 234, 235, 236, 237, 246A, 246B, 248A, 248B
French 101,102, 201, 202
German 101, 102, 201, 202
Humanities 100, 104, *108, *109
Japanese 101, 102, 201, 202
Philosophy 100, 102, 104, 200, 201, 204, 206
Sign Language 101, 102, 201
Spanish 101, 102, 111, 112, 201, 202, 206, 210, 245
Speech 140, 145
Women's Studies 102

d. LANGUAGE AND RATIONALITY: 6 UNIT MINIMUM
Select one course from each of the groups listed below:

(1) ENGLISH COMPOSITION
English 52, 100, 155
Business Communication 147

(2) COMMUNICATION AND ANALYTICAL THINKING
Business Communication 148
Computer and Information Sciences 52, 101, 102, 103, 177, 178
Engineering Design Technology 131
English 103
Mathematics 60, 70, 80, 80A, 100, 110A, 110B, 112, 114, 115, 116, 140, 150, 170
Philosophy 106, 202
Psychology 103, 210
Reading 200
Speech 60, 100, 120, 130, 132, 150, 235, 271
Technical Mathematics 50

NOTE: The preceding graduation requirements apply to students who were in attendance during the 2003-04 school year and thereafter. Students who enrolled prior to Fall 2003 and who have maintained continuous attendance at Cerritos College have the option of meeting the current requirements or those in effect at the time continuous attendance began.

STATEMENT OF PHILOSOPHY FOR GENERAL EDUCATION COURSEWORK

Cerritos College offers an array of general education coursework to students so that they may learn concepts and methods of inquiry that have breadth, depth and relevance to their lives. The general education curriculum includes coursework from the liberal arts, humanities, science, mathematics, arts and social sciences disciplines. Possession of knowledge from these disciplines will contribute to personal growth, professional development and citizenship by increasing students' awareness of the past and present by developing their creative, adaptive and critical thinking abilities. The general education curriculum will provide students with opportunities to

- Develop a lifestyle that will enhance physical and mental health and wellness
- Develop logical and cogent arguments, reaching conclusions that are based on comprehensive inquiry
- Adapt and apply technology to facilitate the acquisition and effective use of information
- Communicate clearly and proficiently through both oral and written expression
- Enhance the appreciation of artistic offerings
- Become informed citizens and problem-solvers to deal with current and future societal issues
- Appreciate the contributions of different cultures, eras and traditions to the human experience
- Develop an appreciation for the value of ethics, integrity, honesty, self-management and the welfare of others

Transfer Requirements

Students planning to transfer to a four-year college or university should bear in mind that admission and subject requirements will vary from school to school. Consequently, students planning to transfer should study carefully the requirements set forth in the catalogs and brochures of the institutions which interest them. Such publications may be obtained directly from the colleges and universities. Also, a large collection of such publications are available in the Transfer Center. In addition to offering transfer information to public and private colleges and universities statewide and national, we are continuing our efforts to obtain articulation agreements for transferring to Historically Black Colleges and Universities (HBCU's). To assure that appropriate transfer course work is being undertaken at Cerritos College, students should plan to communicate regularly with the counseling staff.

THE CALIFORNIA STATE UNIVERSITY
High School Preparation and Admission Requirements

Freshman Requirements - You will qualify for regular admission as a first-time freshman if you

1. are a high school graduate,
2. have a qualifiable eligibility index, and
3. have completed with grades of "C" or better the courses in the comprehensive pattern of college preparatory subject requirements.

Subject Requirements - The California State University requires that first-time freshman applicants complete, with grades of "C" or better, a comprehensive pattern of college preparatory study totaling 15 units. A "unit" is one year of study in high school.

English, 4 years
Mathematics, 3 years: algebra, geometry, and intermediate algebra.
U.S. History or U.S History and government, 1 year.
Science, 1 year with laboratory: biology, chemistry, physics, or other acceptable laboratory science.
Foreign language, 2 years in the same language (subject to waiver for applicants demonstrating equivalent competence).
Visual and performing arts, 1 year: art, dance, drama/theater, or music.
Electives, 3 years: selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts, and agriculture.

ACCEPTANCE OF TRANSFER COLLEGE CREDIT

A student who presents an official transcript of previous college or university work (other than non-degree applicable course work) in courses comparable to those of Cerritos College may receive credit towards the associate in arts degree from Cerritos College. Before credit can be granted, the course work must have been completed at a college or university that is a member of one of the six regional accrediting associations. Official transcripts must be on file with the Admissions and Records Office. Hand-delivered copies of transcripts are accepted provided they are received in a sealed envelope.

Transfer credit from institutions using the quarter system shall be evaluated as follows:

The number of quarter units shall be multiplied by two and divided by three to arrive at the approximate number of semester units. (i.e., 4 quarter units equals approximately 3 semester units.)

Cerritos College is authorized to enroll international students and welcomes applications from such persons. All records of any previous schooling (mark sheets, transcripts, diplomas, certificates, etc.) must be submitted as original documents. These records must show courses taken and grades earned, and must be translated into English if the original records are in another language. If a translation is supplied, it should be certified as accurate and correct by an appropriate public or school official, or sponsoring agency or government. The original record should also be included.

Prior to the application of credit towards the Associate in Arts degree (A.A.), the international transcript must be submitted to evaluation agencies acceptable to Cerritos College. The college may then choose to accept or not accept the agency's recommendations to award credit towards the Associate in Arts degree.

Since the four-year universities maintain their own individual evaluation staffs, credit from foreign institutions towards the baccalaureate degree is subject to the universities' review.

International students also refer to Admissions of International Students in this catalog and contact the International Student Center at (562) 860-2451, ext. 2133; FAX (562) 467-5086, or e-mail: dkurtz@cerritos.edu

TRANSFER REQUIREMENTS

Lower Division Transfer Requirements – If you have completed fewer than 56 transferable semester (84 quarter) units, you will qualify for admission if you have a grade point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet the admission requirements for first-time freshmen, i.e., you have completed with a grade of "C" or better each of the courses in the comprehensive pattern of college preparatory subject requirements and have a qualifiable eligibility index. If you did not complete all the subject requirements in high school, appropriate college courses may be used to make up the missing subjects. Nonresidents must meet the eligibility index for nonresidents.

Upper Division Transfer Requirements – If you have completed at least 56 transferable semester (84 quarter) units, have a grade point average of 2.0 (C) or better in all transferable units attempted (nonresidents must have a grade point average of 2.4), and are in good standing at the last college or university attended, you may become eligible one of two ways:

1. You have completed at least 30 semester (45 quarter) units of college courses with a grade of C or better in each course to be selected from courses in English, arts and humanities, social science, science and mathematics at a level at least equivalent to courses that meet general education requirements. The 30 semester (45 quarter) units must include all of the general education requirements in communication in the English language (at least 9 semester or 12 quarter units to include written communication, oral communication, and critical thinking) and mathematics (at least 3 semester or 4 quarter units) or, if completing the Intersegmental General Education Transfer Curriculum, English communication (at least 9 semester or 12 quarter units in English composition, oral communication, and critical thinking) and the requirement in mathematics (at least 3 semester or 4 quarter units).
2. You have completed all subject requirements required for first-time freshmen. If you did not complete all the subject requirements in high school, appropriate college courses may be used to make up the missing subjects.

For upper division transfers seeking admission to the fall term 2000 or later, the second option will not be available to establish eligibility for admission. All applicants with 56 or more transferable semester (84 quarter) units will be required to have completed at least

30 semester units of courses at a level equivalent to courses that meet general education requirements. The 30 semester units must include all of the general education requirements in communication in English language (3 courses) and at least the three semester units (typically 1 course) required in mathematics.

Applicants who graduated from high school in 1987 or earlier who have not completed the subject requirements in (1) and (2) above should contact the admission office at the campus to which they plan to submit an application for admission to inquire about alternative admission programs.

Please note that the CSU system of universities will require 60 transferable semester units as one of the requirements for upper-division transfers beginning fall 2005. Individual CSU campuses may already require 60 units (see your counselor) or may require 60 units sooner than fall 2005. Local CSU campuses may institute the requirement without much advance notice so students are advised to complete 60 transferable semester units, whenever possible, to ensure their acceptance at any CSU campus.

Test Scores--Freshman and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college credit must submit scores, unless exempt, from either the Scholastic Aptitude Test (SAT) of the College Board or the American College Testing Program (ACT). If you are applying to an impacted program and are required to submit test scores, you should take the test no later than December if applying for fall admission.

Registration forms and dates for the SAT or ACT are available from school or college counselors or from a campus testing office. Or you may write to:

The College Board (SAT) Registration Unit, Box 592 Princeton, New Jersey 08541	American College Testing Program (ACT) Registration Unit, P.O. Box 168 Iowa City, Iowa 52240

TOEFL Requirement – All undergraduate applicants, regardless of citizenship, who have not attended schools at the secondary level or above for at least three years where English is the principal language of instruction must present a minimum score of 500 or above on the Test of English as a Foreign Language. Some campuses may require a score higher than 500.

Transcripts – Final official transcripts must be submitted prior to enrollment to verify that all required coursework has been completed successfully. CSU campuses will either delay admission or not permit registration or attendance until receipt of final transcripts.

Freshman: The campus to which you are applying will provide information about when to submit your official high school transcript. Transcripts must be received in sealed envelopes directly from the high school from which you graduated..

Transfers: Request that official transcripts be sent directly from all colleges or universities previously attended even if no coursework was completed. Transcripts must be received in sealed envelopes from each institution attended. You should keep personal copies of all transcripts and test scores to complete the admission application and for academic advising sessions.

GENERAL EDUCATION REQUIREMENTS FOR THE BACHELOR'S DEGREE AT THE CALIFORNIA STATE UNIVERSITY

The California Administrative Code, Title 5, relating to the State University general education-breadth requirements authorizes Cerritos College to present to the students a maximum 39-unit pattern of general education courses which is acceptable for the Bachelor Degree requirements at the State University.

Cerritos College is further authorized to certify the partial or complete fulfillment of these requirements.

Students may elect to fulfill the general education requirements by following the Cerritos College pattern or the pattern specified by the State University of their choice.

Students in all major fields of study must complete the same pattern of general education requirements. It is strongly recommended that students complete as many units of these requirements as possible during their freshman and sophomore years at Cerritos College so that they can concentrate on major specialization in the upper division.

In general, four-year colleges accept at full unit value approved transfer courses completed with satisfactory grades in the public Community Colleges of the state. However, in most instances a maximum of 70 community college semester units (105 quarter units) can be transferred for credit toward a degree at the senior institution.

STATE UNIVERSITY GENERAL EDUCATION CERTIFICATION REQUIREMENTS

A maximum of 39 units is required to fulfill the CSU lower division general education requirements, with the units to be distributed as follows: Nine (9) units in Area A; nine (9) units in Areas B, C and D, with no more than 30 units total in areas B through D combined; and three (3) units in Area E.

A letter grade of "C" or better is required in Oral Communication, Written Communication, Critical Thinking, and Mathematical Concepts.

Note: Courses appearing in more than one category may be used to satisfy only one category. Such courses are marked with an *.

A. COMMUNICATIONS: 9 units minimum.

Must choose one course from category 1, take the one course in category 2 and choose one course from category 3

1. ORAL COMMUNICATION
   Speech 100, 120, 130, 132, 150

2. WRITTEN COMMUNICATION
   English 100

3. CRITICAL THINKING
   English 103, Philosophy 106, 202, Psychology 103, Speech 235

B. NATURAL SCIENCE AND MATHEMATICS: 9 units minimum.

Choose one course from category 1, one course from category 2 and one course from category 3. AT LEAST ONE LABORATORY (LAB) MUST BE INCLUDED IN CATEGORY 1 or CATEGORY 2.

1. PHYSICAL SCIENCES
   Astronomy 101, 102, 103, 104, 105L (LAB), 106
   Chemistry 100 (LAB), 110 (LAB), 111 (LAB)
   Earth Science 101, 101L (LAB), 104, 106, 110 (LAB)
   Energy 110
   Geography 101
   Geology 101 (LAB), 110, 201 (LAB), 204, 207 (LAB), 209 (LAB)
   Physical Science 100, 112 (not considered a LAB science for CSU GE)
   Physics 100 (LAB), 101 (LAB), 201 (LAB)

2. BIOLOGICAL SCIENCES
   Anatomy and Physiology 120 (LAB), 130 (LAB), 200 (LAB)
   Anthropology 115
   Biology 105, 110 (LAB), 115 (LAB), 120 (LAB), 200 (LAB), 201 (LAB)
   Botany 120 (LAB)
   Microbiology 200 (LAB)
   Psychology 241
   Zoology 120 (LAB)

3. MATHEMATICAL CONCEPTS
   Mathematics 100, 110A, 110B, 112, 114, 115, 116, 140, 150, 170
   Psychology 210

C. FINE ARTS AND HUMANITIES: 9 units minimum.
   Choose at least one course from category 1 and at least one course from category 2.

1. FINE ARTS
   Architecture 112
   Art 100, 101, 102, 103, 104, 106, 107, *108, *109, 110, 116, 120, 130A, 144, 150
   Humanities *108, *109
   Music 100, 101, 102, 103, 104, 104B, 105
   Photography 100, 160
   Physical Education 191
   Theatre 101, 102, 103, 104, 150, 151, 152, 159

2. HUMANITIES
   Art *108, *109
   English 102, 106, 221A, 221B, 222, 223, 224, 225, 226, 227, 228, 230A, 230B, 232, 233, 234, 235, 236, 237, 246A, 246B, 248A, 248B
   French 101, 102, 201, 202
   German 101, 102, 201, 202
   History *101, *110, *120, *201, *202, *210, *220, *221, *230, *235, *241, *242, *245, *246, *250, *255, *260, *265
   Humanities 100, *108, *109
   Japanese 101, 102, 201, 202
   Philosophy 100, 102, 104, 200, 201, 204, 206
   Sign Language 101, 102, 201
   Spanish 101, 102, 111, 112, 201, 202, 206, 210
   Speech 140
   Women's Studies 102

D. SOCIAL SCIENCES: 9 units minimum.
   Choose one course from category 1, one course from category 2 and one course from category 3.

1. AMERICAN HISTORY
   History *101, *201, *202, *220, *221
   (Any one of these courses meets the requirement in U.S. History)
2. AMERICAN GOVERNMENT
   Political Science 101, 201
   (Either of these courses meets the requirement for Constitution and American Ideals)
3. SOCIAL, POLITICAL, HISTORICAL AND ECONOMIC INSTITUTIONS
   Administration of Justice 101
   Anthropology 100, 120, 203
   Economics 101, 102, 201, 202, 204
   Geography 102, 105, 257
   History *110, *120, *210, *230, *235, *241, *242, *245, *246, *250, *255, 257, *260, *265
   Journalism 100
   Political Science 110, 210, 220
   Psychology 101, 251, 261
   Sociology 101, 201, 210, 215, 230
   Speech 110
   Women's Studies 101

E. SELF-DEVELOPMENT: 3 units minimum.
   Choose one course from the following:
   Health Education 100
   Physical Education 141
   Psychology 150
   Sociology 110, 120

NOTE: Changes in the above General Education requirements may occur from time to time. If courses are added to, or deleted from, the pattern, this may effect a student's selection of courses. Students do not have catalog rights to a certification pattern, regardless of their continuous attendance status.

Please consult a counselor for any changes which may have occurred in the general education pattern, or if you have questions.

UNIVERSITY OF CALIFORNIA
Minimum Admission Requirements
Admission as a Freshman

The University considers you a freshman applicant if you have graduated from high school and have not enrolled in a regular session at any college or university. If you attend a summer session immediately after graduating from high school, you are still a freshman applicant.

The freshman admission requirements described in this section represent the minimum level of achievement you must demonstrate to be eligible for admission to the University.

CALIFORNIA RESIDENTS*

To be eligible for admission to the University, you must meet the Subject, Scholarship, and Examination Requirements described below. There is also an explanation of how you may qualify for admission by examination alone.

*Residency Status: The requirements for bonafide California residents also apply to dependents of University of California graduates and employees. The manner in which legal residence is defined for tuition purposes is different. If you have questions about your residency status, contact the Admissions or Registrar's Office at the campus you wish to attend.

SUBJECT REQUIREMENT

To satisfy this requirement, you must complete the high school courses listed below with a grade point average defined by the Scholarship Requirement. This sequence of courses is also known as the "a-f" requirements.

You must take 15 units of high school courses to fulfill the Subject Requirement, and at least 7 of the 15 units must be taken in your last two years of high school. (A unit is equal to an academic year, or two semesters, of study.)

Applicants from California high schools: To be acceptable to the University, the courses must appear on a list certified by your high school principal as meeting the University's admissions require-

ments. Your counselor or principal will have a copy of this list.

a. History/Social Science—2 years required.
   Two years o history/social science, including one year of U.S. history or one-half year of U.S. history and one-half year of civics or American government; and one year of world history, cultures, and geography.
b. English—4 years required.
   Four years of college preparatory English that include frequent and regular writing, and reading of classic and modern literature. Not more than two semesters of ninth grade English can be used to meet this requirement.
c. Mathematics—3 years required, 4 years recommended.
   Three years of college preparatory mathematics that include the topics covered in elementary and advanced algebra and two and three dimensional geometry. Approved integrated math courses may be used to fulfill part or all of this requirement, as may math courses taken in the seventh and eighth grades that the high school accepts as equivalent to its own courses.
d. Laboratory Science—2 years required, 3 years recommended.
   Two years of laboratory science providing fundamental knowledge in at least two of these three disciplines: biology (which includes anatomy, physiology, marine biology, aquatic biology, etc.), chemistry, and physics. Laboratory courses in earth/space sciences are acceptable if they have as prerequisites or provide basic knowledge in biology, chemistry, or physics. The appropriate two years of an approved integrated science program may be used to fulfill this requirement. Not more than one year of ninth grade laboratory science can be used to meet this requirement.
e. Language other than English—2 years required, 3 years recommended.
   Two years of the same language other than English. Courses should emphasize speaking and understanding, and include instruction in grammar, vocabulary, reading, and composition. Language other than English courses taken in the seventh and eighth grades may be used to fulfill part of this requirement if the high school accepts them as equivalent to its own courses.
f. College Preparatory Electives—2 years required.
   Two years (four semesters), in addition to those required in "a-e" above, chosen from the following areas: visual and performing arts, history, social science, English, advanced mathematics, laboratory science, and language other than English (a third year in the language used for the "e" requirement or two years of another language).

SCHOLARSHIP REQUIREMENT

The Scholarship Requirement defines the grade point average (GPA) you must attain in the "a-f" subjects to be eligible for admission to the University.

If your GPA is 3.3 or higher, you have met the minimum requirement for admission to the University. If your GPA is below 3.3 but above 2.77, you have met the minimum requirement if you achieve the college entrance test score indicated on the Eligibility Index.

The University calculates your GPA in the "a-f" subjects by assigning point values to the grades you earn, totaling the points, and dividing the total by the number of "a-f" course units. Points are assigned as follows: A 4 points, B 3 points, C 2 points, D 1 point, and F 0 points.

Only the grades you earn in "a-f" subjects in the 10th, 11th and 12th grades will be used to calculate your GPA. Courses you take in 9th grade can be used to meet the Subject Requirement if you earn a grade of "C" or better, but they will not be used to calculate your GPA.

HONORS COURSES

The University assigns extra points for up to four units of certified honors level and advanced placement courses taken in the last two years of high school: A 5 points, B 4 points, C 3 points. D grades are not considered in these calculations and receive one point only.

The courses must be in the following "a-f" subjects: history, English, advanced mathematics, laboratory science, and foreign language, and they must be certified at your high school as offered at the honors level. In these fields, as well as in the fields of computer science, social science, and the visual and performing arts, courses that are designed to prepare students for an Advanced Placement Examination of the College Board and college courses that are transferable to the University are acceptable honors level courses.

D AND F GRADES

D and F grades in the "a-f" courses must be repeated. In mathematics, foreign language, and chemistry only, a grade of C or better in more advanced coursework may validate D and F grades in earlier work. Consult with your counselor to determine how these grades can be improved and how the university will use them in evaluating your scholarship record.

Grades will not be used for repeated courses in which you initially earned a grade of "C" or better.

ELIGIBILITY INDEX

"a-f" GPA	ACT1 Composite	SAT2 Total	"a-f" GPA	ACT1 Composite	SAT2 Total
2.78	35	1600	3.05	22	970
2.79	35	1580	3.06	21	950
2.80	34	1550	3.07	21	920
2.81	34	1530	3.08	20	900
2.82	33	1510	3.09	19	880
2.83	33	1480	3.10	18	850
2.84	33	1460	3.11	18	830
2.85	32	1440	3.12	17	810
2.86	32	1410	3.13	16	780
2.87	32	1390	3.14	15	760
2.88	31	1370	3.15	14	740
2.89	31	1340	3.16	14	710
2.90	30	1320	3.17	13	690
2.91	30	1300	3.18	12	670
2.92	29	1270	3.19	11	640
2.93	29	1250	3.20	10	620
2.94	28	1230	3.21	9	600
2.95	28	1200	3.22	9	570
2.96	27	1180	3.23	8	550
2.97	27	1160	3.24	8	530
2.98	26	1130	3.25	7	500
2.99	26	1110	3.26	7	480
3.00	25	1090	3.27	6	460
3.01	25	1060	3.28	6	430
3.02	24	1040	3.29	5	410
3.03	24	1020	3.30	5	400
3.04	23	990			

1. ACT is scored in intervals of 1 point, from a minimum of 1 to a maximum of 35.
2. SAT is scored in intervals of 10 points, from a minimum of 400 to a maximum of 1600.

EXAMINATION REQUIREMENT

All freshman applicants must submit the following test scores:

One aptitude test, either the Scholastic Aptitude Test (SAT) or the American College Test (ACT). The verbal and mathematics scores on the SAT must be from the same sitting. The ACT composite score must be submitted.

Three College Board Achievement Tests (ACH), including English Composition, Mathematics Level 1 or Level 2, and one test in one of the following areas: English literature, foreign language, science, or social studies.

ADMISSION BY EXAMINATION ALONE

If you do not meet the Subject and Scholarship Requirements, you may qualify for admission to the University by examination.

To satisfy the minimum requirements for qualifying by examination alone, you must achieve a total score of 1100 or higher on the SAT, or a composite score of 26 or higher on the ACT. In addition, you must earn a total score of 1650 or higher on the three College Board Achievement Tests, with a minimum score of 500 on each test.

You cannot qualify for admission by examination alone if you have completed 12 or more units of transferable coursework at another college or university following high school graduation, or if you have taken transferable college courses in any subject covered by the College Board Achievement Tests.

NONRESIDENTS

The minimum freshman admission requirements for nonresidents of California are the same as those for residents except for the following:

Scholarship Requirement: Your grade point average in the "a-f" subjects must be 3.4 or higher, regardless of your college entrance examination score. The Eligibility Index is used only for California residents.

Admission by Examination Alone: You must score at 1100 on the SAT or 26 on the ACT. Your total score on the three College Board Achievement Tests must be at least 1730, with a minimum score of 500 on any single test.

UNIVERSITY OF CALIFORNIA
Admission as a Transfer for Students Entering UC in Fall 1998 and After.

The University considers you a transfer applicant if you graduated from high school and enrolled in a regular session at another college or university. You can't disregard your college record and apply as a freshman.

If you plan to attend a California community college before applying to the University, you should take courses that are transferable, that satisfy University and college requirements, and that fulfill prerequisites in your major. Advisors in the Admissions Office at the campus you wish to attend and community college counselors can help you with your planning.

The University publishes a booklet especially for transfer applicants called Answers for Transfers. It is available from your community college counselor.

CALIFORNIA RESIDENTS

There are basically three ways in which you can meet the University's minimum admission requirements for transfer students. These requirements are described below. In all cases, you must have at least a "C" (2.0) average in all transferable coursework.

**Residency Status: The requirements for bonafide California residents also apply to dependents of University of California graduates and employees. The manner in which legal residence is defined for tuition purposes is different. If you have questions about your residency status, contact the Admissions or Registrar's Office at the campus you wish to attend.*

1. If you were eligible for admission to the University when you graduated from high school--meaning you satisfied the Subject,* Scholarship, and Examination Requirements---you are eligible to transfer if you have a "C" (2.0) average in your transferable college coursework.
2. If you met the Scholarship Requirement, but did not satisfy the Subject Requirement,* you must take transferable courses in the subjects you are missing to be eligible to transfer. You will need to earn a grade of C or better in each of these required courses, and an overall "C" (2.0) average in all U.C. transferable college coursework. If you completed less than 18 quarter or 12 semester units of U.C. transferable college coursework, you must satisfy the Examination Requirement for freshman applicants.
3. If you were not eligible for admission to the University when you graduated from high school because you did not meet the Scholarship Requirement, or you did not meet the Scholarship Requirement and did not complete all the required "a-f" subjects,* you must:

a. Complete 90 quarter units or 60 semester units of U.C. transferable college credit with a grade point average of at least 2.4, and
b. Complete a course pattern requirement to include:
   1. Two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
   2. One transferable college course (3 semester or 4-5 quarter units) in Mathematical Concepts and Quantitative Reasoning; and
   3. Four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences.

**If you graduated from high school before June 1986, your "c" and "f" subject requirements are different from those described previously. Please contact the Admissions Officer at any U.C. campus for more information.*

NONRESIDENTS

The minimum admission requirements for nonresident transfer applicants are the same as the those for residents except that nonresidents must have a grade point average of 2.8 or higher in all transferable college coursework..

TRANSFERABLE COURSES TO UNIVERSITY OF CALIFORNIA

Please see your counselor or the Transfer Center Coordinator for all courses that have been accepted by any campus of the University of California as transferable for the 2003-04 school year..

INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM

The Intersegmental Committee of the Academic Senates approved the Intersegmental General Education Transfer Curriculum (IGETC) which was implemented Fall 1991. The IGETC is a series of courses that community college students can use to satisfy lower divisions general education requirements at any CSU or UC campus. The IGETC is intended to facilitate course planning and should appeal to students who want to keep their options open before making a final decision about transferring to a particular segment or campus. The IGETC will provide an option to the California State University General Education Requirements and has replaced the University of California Transfer Core Curriculum.

FOR STUDENTS TRANSFERRING TO A UC CAMPUS

In general, it is not advisable for transfers to engineering majors at any UC campus to use the IGETC. The IGETC option may also be inappropriate for transfers entering "high unit" majors such as those in the sciences having substantial lower division science and math prerequisites. It may be more appropriate to take courses that are a part of the general education or breadth requirements for the school or college on the UC campus to which a transfer is planned.

FOR STUDENTS TRANSFERRING TO A CSU CAMPUS

It is important to note that IGETC is an option for CSU bound students. The General Education Certification Requirements are still in effect and may be followed by both continuing and new students who plan to transfer to a California State University.

The Intersegmental General Education Transfer Curriculum will permit 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 G.E. requirements.

Completion of the IGETC is not a requirement for transfer to a CSU or UC, nor is it the only way to fulfill the lower-division, general education requirements of the CSU or UC prior to transfer. Students may find it advantageous to take courses fulfilling CSU's general education requirements or those of a particular UC campus.

The course requirements for ALL areas must be completed PRIOR to transferring to the CSU or UC in order for the IGETC to be certified. However, beginning Fall 2000 a student may be partially certified if they are missing no more than 2 courses and they are able to show good cause for not having the missing courses completed. The missing courses may only be from areas 3, 4, 5, or language other than English. Areas 1 and 2 must be completed in all cases. See your counselor to determine eligibility for partial certification. All courses must be completed with a grade of "C" or better. A student who has completed IGETC may have an official certification sent to a four-year institution upon written request by the student through the Office of Admissions and Records.

NOTE: COURSES APPEARING IN MORE THAN ONE CATEGORY MAY BE USED TO SATISFY ONLY ONE CATEGORY. SUCH COURSES ARE MARKED WITH AN *..

AREA 1 ENGLISH COMMUNICATION

CSU: Courses from A, B, and C required.
UC: Courses from A and B required.

A)English Composition
(1 course, 3 semester/4-5 quarter units)
English 100

B)Critical Thinking-English Composition
(1 course, 3 semester/4-5 quarter units)
English 103
Philosophy 202
Psychology 103

C)Oral Communication (CSU ONLY)
(1 course, 3 semester/4-5 quarter units)
Speech 100+, 120, 130, 132+

AREA 2 MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

(1 course, 3 semester/4-5 quarter units)
Mathematics 100, 112+, 114+, 115, 116+, 150+, 170+, 190, 220, 240
Psychology 210+

ATTENTION UC BOUND STUDENTS

Three years of high school level mathematics (algebra, geometry, advanced algebra) or equivalent are required for admission to a University of California campus. Transfer students entering the UC fall 1994 and later who have not completed this requirement in high school may meet this requirement by completing, with a grade of "C" or better any of the courses listed in IGETC Area 2 except Math 100. Completion of an IGETC Area 2 course (except Math 100) will meet both the UC math admissions and IGETC Area 2 requirements. Completion of Math 100 will meet only the IGETC Area 2 requirement, not the UC math admissions requirement. See a counselor for other ways to meet the UC math admissions requirement.

AREA 3 ARTS AND HUMANITIES

(3 courses, with at least one from A and one from B below; 9 semester/12-15 quarter units)

A) Arts
Architecture 112

Art 100, 101, 102, 103, 104, 106, 107, *108, *109
Humanities *108, *109
Music 100, 101, 103, 104, 104B, 105
Physical Education 191
Theatre 101, 102, 103, 104, 150, 159

B) Humanities
Art *108, *109
English 221A, 221B, 223, 224, 225, 226, 227, 228, 230A, 230B, 232, 233, 234, 235, 236, 237, 246A, 246B, 248A, 248B
French 201, 202
German 102, 201, 202
History *101+, *110, *120, *201+, *202+, *210+, *220, *221, *230, *235, *241, *242, *245, *246, *250, *255, *260, *265
Humanities 100, *108, *109
Japanese 102
Philosophy 100, 102, 104, 200, 201, 204, 206
Sign Language 201
Spanish 102+, 112+, 201, 202, 210
Women's Studies 102

AREA 4 SOCIAL AND BEHAVIORAL SCIENCES

(3 courses from at least two disciplines or an interdisciplinary sequence: 9 semester/12-15 quarter units)
Anthropology 100, 120, 200
Economics 101+, 102, 201, 202+
Geography 102, 105
History *101+, *110, *120, *201+, *202+, *210+, *220, *221, *230, *235, *241, *242, *245, *246, *250, *255, *260, *265
Political Science 101+, 201+, 210, 220, 230
Psychology 101, 150, 251, 261, 271
Sociology 101, 120, 201, 210, 215
Speech 110
Women's Studies 101

AREA 5 PHYSICAL AND BIOLOGICAL SCIENCES

(2 courses, one from A and one from B below; at least one course must include laboratory (lab); 7-9 semester/9-11 quarter units)

A) Physical Sciences
Astronomy 101, 102+, 103+, 104, 105L(lab), 106
Chemistry 100+ (lab), 110+ (lab), 111 (lab), 112 (lab)
Earth Science 101, 101L (lab), 104, 110+ (lab)
Geography 101
Geology 101+ (lab), 110+, 201 (lab), 207 (lab), 209 (Lab)
Physical Science 100+
Physics 100+ (lab), 101+ (lab), 102+ (lab), 201+ (lab), 202+ (lab), 203+ (lab)

B) Biological/Life Sciences
Anatomy and Physiology 120+ (lab), 130+ (lab), 200+ (lab), 201+ (lab)
Anthropology 115
Biology 115 (lab), 120+ (lab), 200+ (lab), 201 (lab)
Botany 120 (lab)+
Microbiology 200 (lab)
Psychology 241
Zoology 120 (lab)

ADDITIONAL REQUIREMENTS

A) UC ONLY: Language other than English
There are several ways to satisfy this requirement. They include:

a) Complete two years of the same foreign language in high school with a grade of "C" or better.
b) Complete first college course in any foreign language, or Sign Language 101, or 102.
c) Earn a minimum score of 550 on an appropriate College Board Achievement Test in a foreign language.
d) For other options, see your counselor.

B) CSU ONLY: The CSU has a specific American Institutions requirement that is separate from the general education requirements. Courses used to meet the American Institutions requirement may NOT be used to satisfy requirements for the IGETC. It is recommended that this requirement be met prior to transfer. The following will meet the CSU American Institutions requirement.
6 units, one course from Group 1 and one course from Group 2.
Group 1: History 101+, 201+, 202+, 220, 221
Group 2: Political Science 101+, 201+

C) The UC-bound student should be aware of the American history and institutions requirements at the campus of choice. Requirements do vary. See your counselor for details.

+Credit limitation. UC credit limitations may apply for certain courses in IGETC, as well as other UC transferable courses which are not in IGETC. An explanation for each course appears in the college catalog course description. See a counselor for details.

Community, Industry & Technology Education – *Bringing it all together for Business!*

OFFICE OF ECONOMIC DEVELOPMENT

The Office of Economic Development (OED) has been established by Cerritos Community College to meet the specific educational needs of business and industry. The OED provides quality controlled, customized programs and services that go beyond the traditional academic curriculum. All programs and services are developed with input from the corporate client and can be provided at the work-site or on campus at times convenient to the program participants.

The OED serves numerous local companies, among them, aerospace companies, banking institutions, health care agencies, utility and public work companies, communication firms, hotels, restaurants, supermarkets and others.

Services and programs provided by the OED include management training, high-tech training, leadership development, computer technology, banking and finance training, executive fitness training, language training, as well as seminars, conferences and forums on current business issues and concerns. Consultant and technical assistance services are available to work with businesses in developing any program that is not already offered.

For further information please call the Office of Economic Development at (562) 860-2451, ext. 2510.

APPLIED TECHNOLOGY EDUCATION CENTER (ATEC)

The Applied Technology Education Center (ATEC) at Cerritos College offers fee-based, short-term courses and programs designed for serious technology users at all levels, and brings together professional information technology and a state-of-the-art facility to meet the stringent training demands of today's high-tech environment. From desktop applications training to networking certification programs, ATEC provides the right learning environment for professionals requiring information technology training.

ATEC's comprehensive courses in popular desktop applications take participants step-by-step through the process of proficiency in applications including: operating systems, presentation packages, desktop office management, web site development, spreadsheet development, word processing and database management.

For more information or course schedules, contact ATEC at 562/467-5050, extension 2511.

COMMUNITY EDUCATION

The Community Education programs carries out the concept of lifelong learning in the general population. Community Education provides classes, activities, workshops and programs to meet the varied needs of our diverse community, from the very young in the College for Children and Young Scholars programs to our seniors in the Emeritus program. All Community Education courses-career development, work force training and retraining, cultural enrichment, and civic literacy-are educational; their overall goal is to impart knowledge and develop skills. The College provides participants with access to quality programs in a format that blends education with work and leisure throughout life.

Here are just a few of the many exciting learning opportunities Community Education offers to enhance your abilities and expand your horizons. Whatever your interests, we believe you will discover a class, an activity, a workshop or a program to meet your needs.

SEMINARS FOR PROFESSIONALS / CERTIFICATE OF COMPLETION:

Business and Sales Computer Training-Financial Planning-Real Estate-Makeup Design-Fingernail Art-EMT Recertification-Coronal Polish-Health Professions-Personal Enrichment-CPR-Holistic Health-Dance Classes-Driver and Motorcycle Training-Traffic School, and our College for Children and Youth Program. (Academics, Children's Theatre, Music and Arts, Dance).

For specific information regarding these programs, call Community Education (562) 467-5050, extension 2521.

ADULT EDUCATION / DIVERSITY PROGRAMS

Adult Education and Diversity Programs provide educational opportunities that address the unique needs of adults in the region. Adult Education courses are noncredit, open entry, open exit, and have No Registration Fees. Adult Education Courses include categories such as:

English as a Second Language
Vocation English as a Second Language
Parenting
Elementary and Secondary Basic Skills
Courses for Immigrants
Educational Programs for Persons with Disabilities
Short-term Vocational Programs
Educational Programs for Older Adults

Emeritus courses are designed to meet the special needs of older adults. Emeritus courses are noncredit, open entry, open exit, and have No Registration Fees. Emeritus courses include:

Senior Exercise
Massage
Arts & Crafts
Quilting
Harmony Chorus, Community Chorus
Creative Writing

Cerritos College Adult Education programs also provide access and opportunities for Adult Education students to enter credit, orientation, and vocational college programs.

Services include one-stop registration, assessment and counseling. For more information call (562)467-5098.

To learn about specific classes and programs offered, read the Calendar of Events. The Calendar contains a complete listing of class offerings, registration procedures and other important information. Look for your Calendar of Events in your mail or call the office for a free copy.

REGISTRATION FOR CLASSES IS ALWAYS SIMPLE

Walk-In	Come to the Community Education Building Located in the far south-west corner of the campus, north of New Falcon Way
Phone In	(562) 467-5050. Have your VISA or MASTERCARD number ready for fee-based courses
Mail In	Use the registration form in the Calendar of Events
Fax In	For fee-based courses use our fax number (562) 467-5013 Register 24 hours, seven days a week.
In Person	Monday - Thursday 8 a.m.-7:30 p.m. Friday 8 a.m.-4:30 p.m. Saturday 8 a.m.- noon.

Cerritos College Foundation

The Cerritos College Foundation, a non-profit organization organized in 1979, serves as a charitable vehicle for the community, individuals and alumni, to assist with financial support to Cerritos College beyond that which cannot be met through state funding. It is the belief of the Foundation that the growth of Cerritos College must be fostered and supported for the institution to keep its rightful place as one of the finest community colleges in California and in the nation.

The Foundation's commitment is to cultivate and solicit private financial support for the faculty staff and programs of Cerritos College whose goal is to continue the tradition of producing high-caliber professionals, leaders and artisans who enrich our community. We are committed to strengthening the pursuit of quality education while meeting the diverse needs of the students and community. The Foundation offers a variety of scholarships in various disciplines to assist students in their educational pursuits.

Over 25 community leaders volunteer generously of their time, talent and resources to support Cerritos College and its students by serving on the Foundation Board of Directors.

We invite you to visit our web-site at www.cerritos.edu/ccf or you may contact the Foundation Office at (562) 860-2451, ext. 2526 for more information or to make a donation.

CURRICULA, REQUIREMENTS FOR MAJORS, CERTIFICATES AND TRANSFER PROGRAMS

ADMINISTRATION OF JUSTICE—775
ASSOCIATE IN ARTS DEGREE

The following Administration of Justice Associate in Arts Degree program meets guidelines established by the California Community Colleges' Chancellor's Office.

Six units of elective, non-transferable Administration of Justice credit may be granted to employed peace officers that have completed a basic P.O.S.T. academy.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units, including: (1) the Administration of Justice Core and Department requirements, (2) A.A. degree general education requirements, and (3) additional elective courses as needed.

ADMINISTRATION OF JUSTICE CORE

REQUIRED (21 UNITS)		UNITS
AJ 91	Report Writing Procedures	3
AJ 101	Introduction to Administration of Justice	3
AJ 102	Concepts of Criminal Law	3
AJ 103	Criminal Procedures	3
AJ 104	Criminal Evidence	3
AJ 105	Community Relations	3
AJ 202	Substantive Law	3

DEPARTMENT REQUIREMENTS

REQUIRED (12 UNITS)		
AJ 110	Concepts of Enforcement Services	3
AJ 220	Criminal Investigation	3
PSYC 101	General Introductory Psychology	3
or PSYC 261	Social Psychology	(3)
SOC 101	Introductory Sociology Principles	3
or SOC 201	Introductory Sociology: Social Problems	(3)

ELECTIVE GROUP

AJ 51	Firearms	1
AJ 52	Advanced Firearms	1
AJ 61	Defense Tactics	1
AJ 62	Advanced Defense Tactics	1
AJ 71	First Aid (AJ)	2
AJ 130	Traffic Control and Investigation	3
AJ 150	Introduction to Corrections	3
AJ 173	A.J. Occupational Work Experience	3
AJ 180	Introduction to Security	3
AJ 208	Special Issues in Law Enforcement	3
AJ 221	Narcotics and Vice Control	3
AJ 222	Juvenile Procedures	3
AJ 298	Directed Studies	1
AJ 299	Directed Studies	2
BCOT 131	Beginning Typing (Recommended)	3
SPAN 223	Spanish for Careers	3
JOUR 101	Beginning Newswriting and Reporting	3
PHOT 100	Introductory Photography	3
BL 100	Introduction to California Civil Procedures	3
BL 101	Introduction to Law	3
BL 103	Legal Research	3

CAREER OPPORTUNITIES: Upon completion of the Administration of Justice Associate in Arts Degree program, employment in various positions in the criminal justice system is available, including police officer, deputy sheriff, correctional officer, investigator, etc. Civil service regulations and state laws govern the appointment of public law enforcement officers. Eligibility depends on performance in competitive exams in addition to education and experience. The positions have rigorous physical, psychological and integrity requirements. Employment is further conditioned on completion of a satisfactory background investigation. Completion of the Baccalaureate transfer program provides the educational potential for advancement to supervisory and management positions or entry to graduate studies or law school.

See Cerritos College Graduation Requirements.

ADMINISTRATION OF JUSTICE—776

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY		UNITS
AJ 101	Introduction to Administration of Justice	3

GENERAL RECOMMENDED ELECTIVES

SOC 101	Principles of Sociology	3
PSYC 101	Introduction to Psychology	3

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University-Dominguez Hills

Administration of Justice is a concentration in the Public Administration major.

See a Counselor for more information.

California State University-Fullerton

All classes for the major are upper division and are taken at CSUF. See a counselor for recommended lower division electives.

California State University – Long Beach

Recommended Electives:

AJ 102	Concepts of Criminal Law	3
AJ 103	Criminal Procedures	3
AJ 104	Criminal Evidence	3
AJ 105	Community Relations	3
AJ 202	Substantive Law	3

California State University-Los Angeles

AJ 102	Concepts of Criminal Law	3
AJ 202	Substantive Law	3
ENGL 103	Critical and Argumentative Writing	3

Recommended Electives:

AJ 103	Criminal Procedures	3
AJ 104	Criminal Evidence	3
AJ 105	Community Relations	

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The completion of 60 units, including 18 units of the above AJ requirements (AJ 101, 102, 103, 104, 105 and 202) and the Associate in Arts General Education Requirements, qualifies the student for the A.A. degree in Administration of Justice.

CAREER OPPORTUNITIES: For those persons seeking employment in law enforcement at the A.A. level of preparation, many opportunities exist in the various federal, state, municipal and county criminal justice agencies. A wider variety of employment opportunities exist for those who hold a Bachelor's degree (e.g. administration) and/or Masters degree (e.g. teaching, research, administration, etc.).

AGRICULTURE—655

TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR CALIFORNIA STATE POLYTECHNIC UNIVERSITY

		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
BOT 120	Introduction to Plant Science	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 112	Elementary Statistics	4
ORNH 110	Soils	4

California State University and Colleges that offer the Bachelor's Degree: Chico, Pomona, Fresno, San Luis Obispo.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include: (1) the lower division preparation, (2) electives as needed, and (3) the Associate in Arts Degree General Education requirements.

CAREER OPPORTUNITIES: Programs with an emphasis in Agriculture are designed for agriculturally-related occupations in business, industry, specialized services, education, conservation, recreation and production. Many careers unknown a few years ago have expanded with mechanization to meet food needs.

See Cerritos College Graduation Requirements.
See State University General Education list.

ANTHROPOLOGY—710

TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY

COMMON LOWER DIVISION PREPARATION		UNITS
ANTH 100	Cultural Anthropology	3
ANTH 115	Human Evolution and Variation	3
ANTH 120	Introduction to Archeology	3

ADDITIONAL LOWER DIVISION RECOMMENDED COURSES
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills

CSUDH offers a Clinical Anthropology concentration which provides majors with a background in medical and psychological anthropology, useful for careers in health and health-related fields.

California State University – Los Angeles

ENGL 103	Critical and Argumentative Writing	3

A modern foreign language (101 and 102 level) or successful completion of 3 years of high school foreign language, or a designated upper-division course in linguistics is required.

University of California – Irvine

Select two courses from below:

ANTH 200	Native Peoples of North America	3
ANTH 201	Native Peoples of California	3
ANTH 202	The Maya, Inca and Aztecs: Ancient Civilizations of the Americas	3

University of California – Los Angeles

UCLA also offers a B.A. and a B.S. in Anthropology. See a counselor for the B.S. requirements.

University of California – Riverside

ENGL 106	Introduction to language Study	3

UCR offers a B.A. and B.S. in Anthropology. A B.A. in Anthropology/Law and Society is also available; see a counselor for additional requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above additional requirements plus other courses selected in consultation with a counselor to provide for the 18 units minimum and all A.A. degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Employment for the person holding the P.H.D. in Anthropology is good. Usual placements are chiefly in colleges and universities and also in museums, national parks, and in technical aid programs. Persons holding the B.A. will find limited employment. A person interested in teaching can use Anthropology as a teaching minor.

See Cerritos College Graduation Requirements.
See State University General Education List.

ARCHITECTURAL TECHNOLOGY—825

ASSOCIATE IN ARTS DEGREE PROGRAM
REQUIRED COURSES

		UNITS
ARCH 110	Introduction to Architecture and Environmental Design	3
ARCH 111	Architectural Drafting	3
ARCH 112	History of Architecture	3
ARCH 113	Building Codes	4
ARCH 121	Materials and Methods of Building Construction	3
ARCH 123	Introduction to Computer Aided Drafting for Architecture	4
ARCH 212	Architectural Design Theory I	3
ARCH 213	Advanced Applications of Computer Aided Drafting for Architecture	4
ARCH 221	Working Drawing/Architectural Desktop	3
ART 110	Freehand Drawing	3
TOTAL CERTIFICATE UNITS		33

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above course requirements, (2) the A.A. Degree general education requirements, and (3) electives as needed.

RECOMMENDED ELECTIVES: ART 185, BA 100, BUSR 101, ENGT 255, PSYC 101.

CAREER OPPORTUNITIES: Employment as an architectural draftsperson, Architectural CAD drafter. Related Transfer Programs: See Architecture - 605 and Industrial Technology-Construction - 837.

See Cerritos College Graduation Requirements.

ARCHITECTURE — 605

TRANSFER PROGRAM

COMMON LOWER DIVISION (CORE) REQUIREMENTS		UNITS
ARCH 111	Architectural Drawing	3
ECON 201	Principles of Macroeconomics	3
or ECON 202	Principles of Microeconomics	(3)
ENGL 102	Composition and Literature	3
or ENGL 103	Critical and Argumentative Writing	(3)
MATH140	Trigonometry	3

ADDITIONAL LOWER DIVISION REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State Polytechnic University – Pomona

ARCH 121	Materials and Methods of Building Construction	3
ARCH 122	Architectural Delineation	2
ARCH 211	Architectural Design, Programming and Presentation	3
ARCH 212	Architectural Design Theory I	3
ARCH 222	Architectural Design Theory II	3
PHYS 101	General Physics	4

California State Polytechnic University – San Luis Obispo

ARCH 110	Introduction to Architecture and Environmental Design	3
ARCH 113	Building Codes	4
ARCH 121	Materials and Methods of Building Construction	3
MATH 170	Analytic Geometry and Calculus I	4
PHYS 201	Engineering Physics	4
PHYS 203	Engineering Physics	4

University of California – Berkeley

ARCH 110	Introduction to Architecture and Environmental Design	3
or ARCH 112	History of Architecture	(3)
ARCH 122	Architectural Delineation	2
ARCH 212	Architectural Design Theory I	3
ART 110	Freehand Drawing	3
ART 121	Three-Dimension Design	3
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
PHYS 201	Engineering Physics	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the 60 units to include (1) The Common Lower Division Requirements, (2) ARCH 212, 222, (3) 9 units of Architectural Electives, (4) The Associate in Arts general education degree requirements.

See Cerritos College Graduation Requirements.
See State University General Education List.

ART AND DESIGN

LETTERING ARTS

VERIFICATION OF COMPLETION

REQUIRED COURSES		UNITS
ART 180	Calligraphy I – Basic Roman Letterforms	3
ART 181	Calligraphy II - Basic Italic Letterforms	3
ART 287A	Letter Arts I - Uncial and Gothic Letterforms	2
ART 287B	Letter Arts II – Formal Roman and Experimental Letterforms	2
ART 183A	Commercial Brush Lettering	1
ART 183B	Copperplate Style Letterforms	1
Total certificate requirements		12

Although some of these courses are transferable, this certificate is non-transferable.

The Lettering Arts Verification of Completion is designed to include the following objectives:

a) To gain proficiency in calligraphy using traditional lettering techniques
b) To develop knowledge of the history of lettering
c) To explore various historic styles of lettering
d) To develop confidence and a personal style of lettering
e) To help the participant create a letter arts business plan

A verification of completion in the Lettering Arts Certificate will be granted upon completion of 12 units.

ART AND DESIGN—111

ASSOCIATE IN ARTS DEGREE

REQUIRED COURSES (15 units)		UNITS
ART 102	Appreciation and History	3
or ART 103	Modern and Contemporary Appreciation	(3)
ART 110	Freehand Drawing	3
ART 112	Life Drawing	3
ART 120	Two-Dimensional Design	3
ART 121	Three-Dimensional Design	3

ART OPTIONAL TRACKS (CHOOSE ONE)

ART HISTORY – Required (12 units)

ART 100	Introduction to World Art	3
ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
or ART 103	Modern and Contemporary Appreciation	(3)
ART 106	Mexican Art	3

CERAMICS – Required (6 units)

ART 150	Introduction to Ceramics I	3
ART 151	Ceramics – Wheelthrowing	3

JEWELRY – Required (12 units)

ART 144	Jewelry/Metalsmithing	3
ART 145	Jewelry Casting and Molds	3
ART 246	Jewelry Design Fabrication	3

DRAWING AND PAINTING – Required (9 units)

ART 130A	Fundamentals of Painting	3
ART 130B	Fundamentals of Painting	3
ART 136	Painting for Art Majors	3

PRINTMAKING – Required (9 units)

ART 116	Beginning Printmaking	3
ART 117	Intermediate Printmaking	3
ART 218	Screenprinting	3
or ART 219	Advanced Etching	(3)

SCULPTURE – REQUIRED (11 units)

ART 160	Life Modeling	2
ART 162	Introduction to Sculpture	3
ART 163	The Techniques of Sculpture	3
ART 264	Sculpture-Stonecarving	3

DESIGN OPTIONAL TRACKS (CHOOSE ONE)

GRAPHIC DESIGN–Required (18 units)

ART 182A	Lettering and Typography	3
ART 184	Graphic Design I	3
ART 186	Computer Graphics in Art and Design	3
ART 188	Design for Desktop Publishing	3
ART 192	Photoshop/Digital Imaging	3
ART 284	Graphic Design II	3

MULTIMEDIA DESIGN–Required (18 units)

ART 186	Computer Graphics in Art and Design (Digital Drawing)	3
ART 188	Desktop Publishing Design	3
ART 192	Photoshop/Digital Imaging	3
ART 194	Multimedia Design	3
ART 195	3D Computer Modeling	3
ART 196	Introduction to Designing Web Graphics	3

RECOMMENDED ELECTIVES

CERAMICS

ART 252	Ceramics – Form and Technique	3
ART 253	Ceramics – Form and Content	3

DRAWING AND PAINTING

ART 213	Intermediate Life Drawing	3
ART 237	Life Painting	3
ART 238	Special Studies in Painting	3

GRAPHIC DESIGN

ART 180	Calligraphy I	3
ART 181	Calligraphy II	3
ART 182B	Lettering and Typography II	3
ART 185	Rendering I	3
ART 285	Rendering	3
BA 110	Advertising	3
PHOTO 100I	Introductory Photography	3

MULTIMEDIA DESIGN

PHOTO 100	Introductory Photography	3
PHOTO 102	Intermediate Photography	3
PHOTO 112	Intermediate Digital Photography	3
ART 184	Graphic Design I	3
CIS 103	Computer Programming Logic	3
CIS 205	Programming in HTML for the World Wide Web	1.5

PRINTMAKING

ART 218	Screenprinting	3
ART 219	Advanced Etching	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units to include: (1) Above art courses and units requirements, (2) AA Degree general education requirements and (3) electives as needed.

CAREER OPPORTUNITIES: Self-employed artist/craftsman; designer; jeweler; potter; printmaker; freehand illustrator; letterer; commercial artist: paste-up, sketch, layout; private studio; gallery museum worker; art supplies sales.

See Cerritos College Graduation Requirements.

COMPUTER ANIMATION—113

CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
Art 101	Appreciation and History	3
or ART 103	Modern and Contemporary Appreciation	(3)
ART 110	Freehand Drawing	3
ART 112	Life Drawing	3
ART 114	Storyboard and Graphic Novel Illustration	3
ART 120	Two Dimensional Design	3
ART 121	Three Dimensional Design	3
ART 190	Animation Principles	3
ART 191	3D Character Animation	3
ART 195	3D Computer Modeling	3
ENGL 240	Creative Writing	3
MUS 244	Digital Audio Production	3
TOTAL CERTIFICATE REQUIREMENT		33

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the requirements for a Certificate of Achievement in Computer Animation. For an A.A. Degree, a student must also take 6 units selected from the following courses: ART 192, ART 194, ART 196, TH 156 and general education requirements to achieve a minimum of 60 units.

MOTION GRAPHICS—114

CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
Art 101	Appreciation and History	3
or ART 103	Modern and Contemporary Appreciation	(3)
ART 110	Freehand Drawing	3
ART 112	Life Drawing	3
ART 114	Storyboard and Graphic Novel Illustration	3
ART 120	Two Dimensional Design	3
ART 121	Three Dimensional Design	3
ART 182A	Lettering and Typography I	3
ART 182B	Letting and Typography II	3
ART 190	Animation Principles	3
ART 198	Motion Graphics	3
MUS 244	Digital Audio Production	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete requirements for a Certificate of Achievement in Motion Graphics. For an A.A. Degree, a student must also take 6 units selected from the following courses: ART 192, ART 194, ART 196, TH 156 and general education requirements to achieve a minimum of 60 units.

DIGITAL ARTS—112

ASSOCIATE IN ARTS DEGREE

REQUIRED COURSES		UNITS
Core Requirements (21 units)		
Art 101	Appreciation and History	3
or ART 103	Modern and Contemporary Appreciation	(3)
ART 110	Freehand Drawing	3
ART 112	Life Drawing	3
ART 114	Storyboard and Graphic Novel Illustration	3
ART 120	Two Dimensional Design	3
ART 121	Three Dimensional Design	3
ART 190	Animation Principles	3

Completion of all courses (12 units) in either the Motion Graphics Emphasis or the Computer Animation Emphasis as listed below:

MOTION GRAPHIC EMPHASIS

ART 182A	Lettering and Typography I	3
ART 182B	Letting and Typography II	3
ART 198	Motion Graphics	3
MUS 244	Digital Audio Production	3

COMPUTER ANIMATION EMPHASIS

ENGL 240	Creative Writing	3
ART 191	3D Character Animation	3
ART 195	3D Computer Modeling	3
MUS 244	Digital Audio Production	3

Plus two courses from the following list (6 units):

TH 156	Video Production	3
ART 192	Photoshop/Digital Imaging	3
ART 194	Multimedia Design	3
ART 196	Introduction to Designing Web Graphics	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete (1) core requirements, (2) all courses in the Motion Graphics Emphasis or the Computer Animation Emphasis, (3) two courses from the list above, and (4) the Associate in Arts Degree general education requirements.

ART AND DESIGN — 116

TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY **UNITS**

ART AND DESIGN

ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
ART 110	Freehand Drawing	3
ART 120	Two - Dimensional Design	3
ART 121	Three - Dimensional Design	3

GRAPHIC DESIGN (in addition to the above)

ART 182A	Lettering and Typography I	3

MULTIMEDIA DESGIN (in addition to the above)

ART 182A	Lettering and Typography I	3
ART 185	Rendering	3

ADDITIONAL LOWER DIVISION REQUIREMENTS
FOR SPECIFIC CALIFORNIA STATE UNIVERSITIES

California State University – Dominguez Hills

ART 103	Modern and Contemporary Appreciation	3
ART 130A	Fundamentals of Painting	3
ART 162	Introduction to Sculpture	3

Available Options: Art History, Design, and Studio Art

California State University – Fullerton

ART 112	Life Drawing	
ART 130A	Fundamentals of Painting	3
ART 130B	Fundamentals of Painting	3

Available Concentration: Art History; General Studio Art; Teaching (single subject instruction); Ceramics, Crafts; Creative Photography; Drawing and Painting; Entertainment Art / Animation; Graphic Design; Illustration; Printmaking; and Sculpture.

California State University – Long Beach

ART 136	Painting for Art Majors	3

Available Options: Art History; Art Education (single subject instruction); Art Photography; Ceramics; Drawing and Painting; Illustration; 3-D Fiber Media; Printmaking; Sculpture, and Graphic Design. The above requirements are for the art major only. See a counselor for design major requirements.

California State University – Los Angeles

ART 112	Life Drawing	3
ART 130A	Fundamentals of Painting	3
or ART 136	Painting for Art Majors	(3)

The above requirements are for the Art major only. Please see counselor for Design major.

Available Options: Animation (Traditional and Computer Track); Design; Art Education; Art History; Fashion and Textiles.

LOWER DIVISION REQUIREMENTS FOR SPECIFIC
CAMPUSES OF THE UNIVERSITY OF CALIFORNIA

University of California – Irvine

ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
ART 103	Modern and Contemporary Appreciation	3

Plus, four (4) courses selected from:

ART 110	Freehand Drawing	3
ART 130A	Fundamentals of Painting	3
ART 162	Introduction to Sculpture	3
ART 155	Beginning Ceramic Sculpture	3
or ART 192	Digital Imaging	(3)

University of California – Los Angeles

ART 103	Modern and Contemporary Appreciation	3
ART 110	Freehand Drawing	3
ART 130A	Fundamentals of Painting	3
ART 162	Introduction to Sculpture	3
PHOT 100	Introductory Photography	3

Plus, one (1) course selected from:

ART 101	Appreciation and History	3
or ART 102	Appreciation and History	(3)
or ART 105	Women Artists	(3)
or ART 100	Introduction to World Art	(3)
or ART 107	Asian Art History	(3)

University of California – Riverside

ART 110	Freehand Drawing	3
ART 136	Painting for Art Majors	3

Plus, one (1) course selected from:

ART 101	Appreciation and History	3
or ART 102	Appreciation and History	(3)
or ART 103	Modern and Contemporary Appreciation	(3)

Additional Art classes should be selected according to the student's art emphasis at the transfer institution. Contact a Cerritos College Fine Arts Counselor for specific requirements for the school and option selected in order to optimize preparation to transfer.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the following: (1) Above transfer requirements, (2) the AA Degree general Education requirements, and (3) electives to achieve a minimum of 60 units.

ARTS CAREER OPPORTUNITIES: Self-employed artist/craftsman designer, printmaker, potter, freehand illustrators, private studio, gallery museum or display worker, and curator, art supplies sales, studio or art history instructor, art consultant.

GRAPHIC DESIGN/MULTIMEDIA DESIGN CAREER OPPORTUNITIES: The Graphic Design track prepares students for careers in the fields of graphic design and desktop publishing. The Multimedia track focuses on electronic media including multimedia and web design.

AUTOMOTIVE COLLISION REPAIR (AUTOBODY TECHNICIAN)—849
CERTIFICATE OF ACHIEVEMENT

		UNITS
AB 51	Non-Structural Damage Repair	4.5
or AB 50A	Body Trim & Minor Repairs	(1)
AB 50B	Panel Replacement	(1)
and AB 50C	Structural Repair Setup	(1)
AB 52	Structural Damage Repair	4.5
AB 53	Suspension, Alignment & Power Train	4.5
AB 54	Advanced Design Automotive Panel Repair	4.5
AB 55	Structural Panel Replacement	4.5
AB 56	Non-Structural Automotive Welding	2
AB 57	Structural Automotive Welding	2
AB 61	Preparation and Spot Refinishing	4.5
or AB 60A	Sanding & Paint Prep	(1)
AB 60B	Mix & Apply Paint	(1)
and AB 60C	Paint Defects-Causes & Cures	(1)
AB 86	Production Management	2
AB 181	Non-Structural Damage Estimating	3
or AB 80A	Vehicle Staging	(1)
AB 80B	Damage Analysis & Auto Systems	(1)
and AB 80C	Vehicle Types & Auto Systems	(1)
or AB 59A	Computer Measuring Training	(1)
AB 59B	Unitized Analysis and Repair Planning	(1)
AB 59C	Full-Frame Analysis and Repair Planning	(1)
TOTAL CERTIFICATE REQUIREMENT		36(33)

CAREER OPPORTUNITIES: This program prepares the student with entry-level knowledge and skills in automotive collision repair including body and frame repair technician, apprentice body and frame repair technician and shop foreman.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for your chosen Certificate (listed above) plus completes such electives and general education requirements including TM 50 to achieve a minimum of 60 units.

AB 51, AB 56 and AB 57 may be substituted for I-CAR Welding Qualification Test Certification plus 9 units of AB 73 Work Experience.

See Cerritos College Graduation Requirements.

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY—810
CERTIFICATES OF ACHIEVEMENT

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-GENERAL TECHNICIAN—807

		UNITS
AUTO 100	Maintenance	4
AUTO 120	Brake & Alignment	5
AUTO 130	Electrical	4
AUTO 140	Engines	5
AUTO 160	Drive Train	4
AUTO 223	Body Electrical	4
AUTO 226	Automatic Transmission	5
		31

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-ELECTRICAL / DIAGNOSIS TECHNICIAN—804

		UNITS
AUTO 100	Maintenance	4
AUTO 130	Electrical	5
AUTO 140	Engines	5
AUTO 170	Emission Control	5
AUTO 180	Air Conditioning	4
AUTO 223	Body Electrical	4
AUTO 233	Fuel Systems	5
AUTO 243	Diagnostic Engine Performance	4
		36

AUTOMOTIVE MECHANICAL REPAIR ENGINE / MACHINING TECHNOLOGY—805

		UNITS
AUTO 100	Maintenance	4
AUTO 140	Engines	5
AUTO 150	Machine Shop I	5
AUTO 224	Advanced Engines	5
AUTO 225	Machine Shop II	5
AUTO 245L	Automotive Specialty	2
		26

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-MANUFACTURE SPECIALTY—806

		UNITS
AUTO 51	Air Conditioning	4
AUTO 73	Work Experience	15
AUTO 121	Brake & Alignment	6
AUTO 131	Electrical	7
AUTO 141	Engines	4
AUTO 161	Power Train	6
AUTO 231	Diagnostic Engine Performance	6
		48

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The completion of 60 units to include 1) courses for completion of an Automotive Certificate option, 2) General Education course require-

ments to include Technical Math 50, and 3) electives as needed.

RECOMMENDED ELECTIVES: Weld 100, Met 100A, MTT 100, BCOM 147, BCOM 148, MFGT 100, TM 50.

CAREER OPPORTUNITIES: General Auto Mechanic, Parts Clerk, Mechanical and Auto Agencies or Commercial Fleets, and a variety of automotive specialties.

See Cerritos College Graduation Requirements.

BILINGUAL EDUCATION—509 TRANSFER PROGRAM

The State of California provides for a two-step, five-year program leading to the Preliminary Teaching Credential. The first two-years of this process may be completed at Cerritos College.

RECOMMENDED COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

		UNITS
CD 110	Child Development and Guidance	3
ENGL 106	Introduction to Language Study	3
SPAN 201	Intermediate Spanish	5
*SPAN 112	Elementary Spanish for Spanish Speakers	5
SPAN 213	Living Spanish Grammar	2
SPAN 214	Living Spanish Grammar	2
SPAN 245	Introduction to Chicano Studies	3

*Spanish Speakers may waive SPAN 111 or 112 by examination.

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

Consult your counselor for current information regarding lower division major requirements for specific transfer institutions. Transfer college catalogs are available in the Counseling Center.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The completion of 60 units, including the above required courses and the Associate in Arts General Education requirements, qualifies a student for the Associate in Arts Degree in Bilingual Education.

CAREER OPPORTUNITIES: Professional opportunities after transfer and completion of a university program leading to the basic teaching credential with Bilingual emphasis: Employment as a credentialed teacher to instruct in any grade level pre-school through classes for adults.

See Cerritos College Graduation Requirements.
See State University General Education Requirements.

BIOLOGY—680 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
PHYS 101	General Physics	4
PHYS 102	General Physics	4

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State Polytechnic University – Pomona

BIOL 105	Man and Environment	3
BOT 120	Introduction to Plant Science	4
MATH 112	Elementary Statistics	4
MICRO 200	Introduction to Microbiology	5

California State University – Dominguez Hills

MATH 112	Elementary Statistics	4
MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological, and Social Sciences	(4)

California State University – Fullerton

BIOL 202	Molecular Biology/Genetics	4
MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological, and Social Sciences	(4)
ZOOL 120	Introduction to Animal Biology	4

California State University – Long Beach

MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological, and Social Sciences	(4)
MATH 190	Analytic Geometry and Calculus II	4
FOR OPTION IN CELL & MOLECULAR BIOLOGY		
MICRO 200	Introduction to Microbiology	5

California State University – Los Angeles

CHEM 205	Quantitative Analysis Chemistry	4
ENGL 103	Critical and Argumentative Writing	3
MATH 170	Analytic Geometry and Calculus I	4

COMMON LOWER DIVISION PREPARATION FOR THE UNIVERSITY OF CALIFORNIA

BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

ADDITIONAL LOWER DIVISION PREPARATION FOR THE UNIVERSITY OF CALIFORNIA

University of California – Irvine

BIOL 202	Molecular Biology/Genetics	4
MATH 170	Analytic Geometry and Calculus I	4
and MATH 190	Analytic Geometry and Calculus II	4
or MATH 170	Analytic Geometry and Calculus I	(4)
with MATH 112	Elementary Statistics	(4)
or PSYC 210	Elementary Statistics	(4)
PHYS 203	Engineering Physics	4

In completing IGETC general education requirements, students must include 2 courses from the Humanities category.

University of California – Los Angeles

BIOL 202	Molecular Biology/Genetics	4
MATH 112	Elementary Statistics	4
MATH 170	Analytic Geometry and Calculus I	4

MATH 190	Analytic Geometry and Calculus II	4
PHYS 203	Engineering Physics	4

University of California – Riverside

MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4

Students intending to meet lower division requirements for any school or division of the University of California should consult the catalog of that institution in addition to checking the ASSIST.ORG Articulation.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the 60 units to include (1) The CSU or UC common lower division preparation, (2) MATH 116 OR 170 (3) the Associate in Arts general education degree requirements.

CAREER OPPORTUNITIES: The Bachelor's Degree programs with an emphasis in Biology are designed to qualify the student to enter graduate schools, to enter teaching at the primary and secondary level, and are appropriate for some applied work in laboratories, federal employment, state civil service and the pharmaceutical industry.

BOTANY—685
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION
FOR SPECIFIC TRANSFER INSTITUTIONS **UNITS**

California State Polytechnic University – Pomona

BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
BOT 120	Introduction to Plant Science	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 112	Elementary Statistics	4
MATH 116	Calculus for Managerial Biological and Social Sciences	4
MICR 200	Introduction to Microbiology and Bacteriology	5
PHYS 101	General Physics	4
PHYS 102	General Physics	4

UNIVERSITY OF CALIFORNIA – RIVERSIDE

BIO 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
BOT 120	Introduction to Plant Science	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 170	Analytical Geometry and Calculus I	4
MATH 190	Analytical Geometry and Calculus II	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
ZOOL 120	Introduction to Animal Biology	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include: (1) the above required courses, (2) electives as needed, and (3) the Associate in Arts Degree General Education requirements.

CAREER OPPORTUNITIES: Bachelor's Degree programs with an emphasis in Botany are designed to qualify the student for graduate study in the field; for teaching through the high school level; for applied work with Federal, State park, forestry and agricultural services, and with private industry.

See Cerritos College Graduation Requirements.
See State University General Education List.

BUSINESS ACCOUNTING PROGRAMS
BUSINESS ACCOUNTING—240
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		**UNITS**
*BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
BUSA 131	Computerized Accounting-IBM	3
BUSA 133	Computerized Spreadsheet Accounting	3
BUSA 201	Intermediate Accounting I	4
BUSA 202	Intermediate Accounting II	4
BUSA 240	Cost Accounting	4
or BUSA 241	Managerial Accounting	(4)
BUSA 250	Income Tax Accounting	3
or BUSA 130	Payroll Tax Accounting	(3)
BUSF 50	Electronic Calculators/Business Applications	3
BUSF 125	Personal Finance	3
or BUSA 60	QuickBooks Accounting	(1.5)
and BUSA 61	Turbo Tax Accounting	(1.5)

TOTAL CERTIFICATE REQUIREMENTS: 35

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Accounting and complete general education requirements to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

OTHER RECOMMENDED COURSES:

BA 100	Fundamentals of Business	3
BA 111	Business Law	3
BCOM 147	Business Communications	3

*Prerequisite for BUSA 101 - BUSA 100.

Please see a Business counselor or the respective department chairperson for additional alternatives.

See Cerritos College Graduation Requirements.

BUSINESS ACCOUNTING
ADVANCED ACCOUNTING—244
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		**UNITS**
Complete the Accounting Certificate-240 Requirements:		35
Plus any three of the following four courses:		
BUSA 240	Cost Accounting	4
BUSA 241	Managerial Accounting	4
BUSA 270	Fundamentals of Auditing	3
BUSA 280	Advanced Accounting	3

TOTAL CE9RTIFICATE REQUIREMENTS: 45/46

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Advanced Accounting and complete general education requirements to achieve a minimum of 60 units.

OTHER RECOMMENDED COURSE:

BA 112	Business Law	

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see a Business counselor or the respective department chairperson for additional alternatives.

BUSINESS ACCOUNTING MICROCOMPUTER ACCOUNTING CLERK—243 CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		**UNITS**
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 131	Computerized Accounting-IBM	3
BUSA 133	Computerized Spreadsheet Accounting	3
BUSF 50	Electronic Calculators/Business Applications	3
BUSF 125	Personal Finance	3
or BUSA 60	QuickBooks Accounting	(1.5)
and BUSA 61	Turbo Tax Accounting	(1.5)
CIS 102	Introduction to Microcomputer Hardware & Applications Software	3
TOTAL CERTIFICATE REQUIREMENTS:		22

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Microcomputer Accounting Clerk and complete general education requirements to achieve a minimum of 60 units.

OTHER RECOMMENDED COURSES:

*BUSA 130	Payroll Tax Accounting	3
BA 111	Business Law	3
BCOT 108	WordPerfect for Windows	3.5
or BCOT 112	Word for Windows	(3.5)
BCOM 147	Business Communications	3

*Required for Advanced Microcomputer Accounting Clerk Certificate–245

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see a Business counselor or the respective department chairperson for additional alternatives.

ADVANCED MICROCOMPUTER ACCOUNTING CLERK—245 CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		**UNITS**
Complete Microcomputer Accounting Clerk – 243 CERTIFICATE REQUIREMENTS: 22 units		
Plus any three of the following courses:		
BUSA 130	Payroll Tax Accounting	3
BUSA 250	Income Tax Accounting	3
BA 111	Business Law	3
or BA 100	Fundamentals of Business	(3)
TOTAL CERTIFICATE REQUIREMENTS:		31

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for Certificate of Achievement in Advanced Microcomputer Accounting Clerk and complete general education requirements to achieve a minimum of 60 units.

OTHER RECOMMENDED COURSES:

BA 100	Fundamentals of Business	3
BA 111	Business Law	3
BCOT 108	WordPerfect for Windows	3.5
or BCOT 112	Word for Windows	(3.5)

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see a Business Counselor or the respective department for additional alternatives.

BUSINESS ADMINISTRATION PROGRAMS BUSINESS ADMINISTRATION MINOR CERTIFICATE OF COMPLETION (9 UNITS)

Complete, with a grade of Credit or "C" or higher, BA 100 and two additional Business Administration courses which have been determined in consultation with a full-time business instructor, or counselor, to enhance the student's individual employment success.

Upon receiving your Certificate of Achievement or A.A. degree, a statement will be placed on your official transcript that you have completed the requirements for a Minor in Business Administration.

A separate certification of completion of the requirements for a Minor in Business Administration can also be issued. Check with department for details.

CAREER OPPORTUNITIES: This minor combined with your major provides significant preparation for employment in business, private industry, and self-employment.

BUSINESS GENERAL—200

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

In order to qualify for an Associate in Arts Degree in General Business the following requirements must be met:

1. Completion of the A.A. degree general education and proficiency requirements;
2. Completion of a minimum of 60 degree applicable units.
3. Completion of at least 18 units selected from any of the courses offered by the Business Division. The Business Division departments are listed below:
   a. Business Accounting/Finance
   b. Business Administration
   c. Business Computerized Office Technologies/Business Communications
   d. Business Court Reporting
   e. Business Paralegal
   f. Business Real Estate

NOTE: Although many of these courses are transferable, this A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

CAREER OPPORTUNITIES: Prepares the student for a variety of career opportunities in business, industry, government, and self-employment.

BUSINESS ADMINISTRATION—273
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		UNITS
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
BA 111	Business Law	3
BA 112	Business Law	3
BA 114	Marketing	3
BA 115	Management Business	3
BA 171-174	Business Administration Occupational Work Experience	1-4
CIS 101	Introduction to Computer Information Systems	3
ECON 201	Principles	3
ECON 202	Principles	3
or BA 113	Legal Environment	(3)
TOTAL CERTIFICATE REQUIREMENTS:		30/33

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Administration. Complete electives BA 101 and CIS 102 and complete general education requirements to achieve a minimum of 60 units. (Highly recommend completion of BCOM 147.)

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

RETAIL MANAGEMENT—274
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		UNITS
BA 50	Business Math	3
BA 106	Human Resource Management	3
BA 107	Human Relations in Business	3
BA 114	Marketing	3
BA 115	Management-Business	3
BA 123	Fundamentals of Retailing	3
BUSA 100	Introduction to Accounting	3
BCOM 147	Business Communications	3
BCOM 148	Effective Business Presentations	3
BCOT 114	Introduction to Microsoft Office	3
TOTAL CERTIFICATE REQUIREMENTS:		30

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Retail Management. Complete general education requirements and electives to achieve a minimum of 60 units.

SUGGESTED ELECTIVES:

BA 54	Retail Display	3
BA 57	Inventory Management	3
BA 104	Cultural Bridges for Business	3
BA 110	Advertising	3
BA 113	Legal Environment of Business	3
BA 118	Management—Retailing	3
BA 153	Small Business Management	3
BA 171-174	Business Administration Occupational Work Experience	1-4

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

BUSINESS ADMINISTRATION—773
TRANSFER PROGRAM

LOWER DIVISION MAJOR REQUIREMENTS

FOR SPECIFIC TRANSFER INSTITUTIONS		UNITS
California State University - Dominguez Hills		
BA 111	Business Law	3
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
CIS 101	Introduction to Computer Information Systems	3
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3

Plus, a transfer level Math course from General Education- (Math 112, 115, or 116 recommended).

California State University - Fullerton		
BA 113	Legal Environment of Business	3
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
BUSA 133	Spreadsheet Accounting I	3
CIS 101	Introduction to Computer Information Systems	3
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 116	Calculus for Managerial, Biological, and Social Sciences	4
or MATH 170	Analytical Geometry and Calculus I	(4)

One additional Social Science course from any course in Area D. 3 of the Cal State University General Education Requirements. CSUF also requires a lower division business writing course not offered at Cerritos College.

California State University - Los Angeles		
BA 111	Business Law	3
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
CIS 101	Introduction to Computer Information Systems	4
		4
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 112	Elementary Statistics	4

Students are advised to complete ENGL 103 as their Critical Thinking requirement. This will meet a graduation requirement at CSULA.

California State University - Long Beach

BA 111	Business Law	3
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
CIS 101	Introduction to Computer Information Systems	3
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 115	Finite Mathematics	4
MATH 116	Calculus for Managerial, Biological, and Social Sciences	4

Every Business Administration major at CSULB must take either PHIL 106 (Logic) or PHIL 102 (Ethics). If you plan to specialize in MIS, you must take PHIL106. If you plan on specializing in Accounting you must take PHIL 102. Specialists in Accounting must take a course in Anthropology, Psychology, or Sociology.

California State Polytechnic University – Pomona

BA 111	Business Law	3
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
CIS 101	Introduction to Computer Information Systems	3
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 112	Elementary Statistics	4

Majors in Accounting or Finance and Law must take Math 116 and either English 102 or 103.

University of Southern California

BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
ENGL 100	Freshman Composition	3
ENGL 102	Freshman Composition and Literature	3
or ENGL 103	Critical and Argumentative Writing	(3)
or PHIL 202	Critical Thinking and Argumentative Writing	(3)
MATH 116	Calculus for Managerial, Biological, and Social Sciences	4

University of California - Riverside

BA 100	Fundamentals of Business	3
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
CIS 101	Introduction to Computer Information Systems	3
or CIS 102	Introduction to Microcomputer Hardware and Applications Software	(3)
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 112	Elementary Statistics	4
or PSYC 210	Elementary Statistics	(4)
MATH 116	Calculus for Managerial, Biological and Social Sciences	4
or MATH 170	Analytical Geometry and Calculus I	(4)
PSYC 220	Research Methods	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the following common lower division requirements: BUSA 100, BUSA 101, BA 111 or BA 113, CIS 101, ECON 201 and 202 and one transfer level MATH course. Plus, the General Education requirements and Proficiencies for the AA Degree and achieve a minimum of 60 degree applicable units.

CAREER OPPORTUNITIES: Career opportunities are numerous and depend on the specialization selected, ranging from independent practice as a Certified Public Accountant to corporate leadership in a multinational company.

See Cerritos College Graduation Requirements.
See State University General Education List

BUSINESS MANAGEMENT—215
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		UNITS
BA 100	Fundamentals of Business	3
BA 101	International Business	3
BA 107	Human Relations in Business	3
BA 111	Business Law	3
BA 115	Management-Business	3
or BA 117	Introduction to Supervision	(3)
or BA 153	Small Business Management	(3)
BA 132	Computer Applications for Managers	3
BA 156	Motivational Presentation Skills for Managers	3
BA 171-174	Business Administration Occupational Work Experience	1-4
TOTAL CERTIFICATE REQUIRMENTS:		22/25

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

Meet the requirements for a Certificate of Achievement in Business Management. Select 15 units from the following (if not used to satisfy certificate units): BA 50 or CIS 101 or CIS 102, BA 106, BA 112, BA 114, BA 115 and BA 153, BUSA 100 or BUSA 101, and BCOM 147 and complete general education requirements to achieve a minimum of 60 units.

BUSINESS MANAGEMENT SPECIALIZATION

An A.A. Degree in Business Management with a specialization may be achieved by taking two courses from one of the following categories:

1. HumanResources
   BA 105 and PSYC 101 OR SOC 101
2. Small Business Ownership
   BA 101 or BA 110, BA 54 and BA 153
3. Legal Management
   BA 113 and BA 51
4. Supermarket Management
   BA 203 and BA 119
5. Banking Management
   BA 200 and BA 201

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

CAREER OPPORTUNITIES: Prepares the student for a variety of career opportunities in business, industry, government and self-employment.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

EMPLOYMENT DEVELOPMENT—227
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS: **UNITS**

1. COMPLETION OF 9 UNITS IN COURSES SELECTED FROM ONE OF THE DEPARTMENTS LISTED BELOW:
   a. Business Accounting/Finance
   b. Business Administration
   c. Business Computerized Office Technologies/Business Communications
   d. Business Court Reporting
   e. Business Paralegal
   f. Business Real Estate
2. COMPLETION OF 12 UNITS OF OCCUPATIONAL WORK EXPERIENCE COURSES IN THE SAME OCCUPATIONAL DISCIPLINE AS LISTED ABOVE. (REQUIREMENT: CONCURRENT ENROLLMENT IN ONE 4-UNIT WORK EXPERIENCE COURSE AND ONE 3-UNIT COURSE FROM DEPARTMENT SELECTED.)

EXAMPLE:
(Using the Business Administration Department)

BA 100	Fundamentals of Business	3
BA 174	*Business Administration Occupational Work Experience	4
BA 107	Human Relations in Business	3
BA 174	*Business Administration Occupational Work Experience	4
BA 111	Business Law	3
BA 174	*Business Administration Occupational Work Experience	4
TOTAL CERTIFICATE REQUIREMENTS:		21

*This program permits 12 units of credit to be earned on the job. The student must work at least 20 hours per week in a related industry.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Employment Development. Complete BA 101, BA 107, BA 111, BA 112, BA 115 or BA 153, BA 121 or BA 110 or BA 114, and BCOM 147 and complete general education requirements to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

CAREER OPPORTUNITIES: Prepares the student for a variety of career opportunities in business, industry, government, and self-employment.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

MANAGEMENT DEVELOPMENT MERCHANDISING—228
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		**UNITS**
BA 50	Business Math	3
BA 54	Retail Display	3
BA 110	Advertising	3
BA 118	Management – Retailing	3
BA 123	Fundamentals of Retailing	3
BA 174	*Business Administration Occupational Work Experience	4
BA 174	*Business Administration Occupational Work Experience	4
BA 174	*Business Administration Occupational Work Experience	4
BA 174	*Business Administration Occupational Work Experience	4
TOTAL CERTIFICATE REQUIREMENTS:		31

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Merchandising. Complete nine units of Business Division electives and complete general education requirements to achieve a minimum of 60 units.

(Highly recommend completion of BCOM 147.)

*This is a program that permits 16 units of credit to be earned on the job. The student must work at least 20 hours per week in a related industry.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

BUSINESS MANAGEMENT SUPERMARKET—216

BUSINESS MANAGEMENT-
SUPERMARKET DEPARTMENT AWARD - 16 / 19 UNITS

BA 107	Human Relations in Business	3
BA 114	Marketing	3
BA 115	Management—Business	3
BA 123	Management—Retailing	3
BA 171-174	Business Administration Occupational Work Experience	1-4
BA 203	Management--Department Operations	3

CERTIFICATE OF ACHIEVEMENT - 31 / 34 UNITS

In addition to the 16/19 units required for the Department Award, choose additional 15 units from the following for a Certificate of Achievement:

BA 50	Business Math	3
BA 110	Advertising	3
BA 111	Business Law	3
BA 119	Management-Supermarket	3
BA 120	Management-Accounting and Internal Control	3
BA 156	Motivational Presentation Skills for Managers	3
BUSA 241	Managerial Accounting	4

CIS 101	Introduction to Computer Information Systems	3
CIS 102	Introduction to Microcomputer Hardware & Applications Software	3
BCOM 148	Effective Business Presentations	3
TOTAL CERTIFICATE REQUIREMENTS:		31/34

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Management-Supermarket. Complete general education requirements and electives to achieve a minimum of 60 units. (Highly recommend completion of BCOM 147.)

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

BUSINESS MARKETING—213
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BA 100	Fundamentals of Business	3
BA 101	International Business	3
BA 107	Human Relations in Business	3
BA 110	Advertising	3
BA 114	Marketing	3
BA 121	Sales	3
BA 171/174	Business Administration Occupational Work Experience	1-4
TOTAL CERTIFICATE REQUIREMENTS:		19/22

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Marketing. Complete BA 50 or CIS 101 or CIS 102, BA 153, BA 111, BA 112, and BCOM 147 and complete general education requirements to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

CAREER OPPORTUNITIES: Prepares the student for a variety of career opportunities in business, industry, government, and self-employment.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

BUSINESS SUPERVISION—225
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		UNITS
BA 100	Fundamentals of Business	3
BA 106	Human Resource Management	3
BA 107	Human Relations in Business	3
BA 115	Management—Business	3
BA 117	Introduction to Supervision	3
or BA 153	Small Business Management	(3)
BA 132	Computer Applications for Managers	3
BA 156	Motivational Presentation Skills for Managers	3
BA 171/174	Business Administration Occupational Work Experience	1-4
TOTAL CERTIFICATE REQUIREMENTS:		22/25

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Business Supervision and complete general education requirements to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

BUSINESS PRODUCTION AND INVENTORY MANAGEMENT—226

COURSE COMPLETION CERTIFICATE - 3 SEMESTER UNITS

PRODUCTION AND INVENTORY MANAGEMENT DEPARTMENTAL CERTIFICATE - 18 SEMESTER UNITS

CERTIFICATE OF ACHIEVEMENT - 28 / 31 SEMESTER UNITS

BUSINESS PRODUCTION AND INVENTORY MANAGEMENT CERTIFICATE - 18 UNITS

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BA 57	Inventory Management	3
BA 58	Just-In-Time Inventory Management	3
BA 59	Material Requirements Planning (MRP)	3
BA 60	Master Scheduling	3
BA 206	Production Activity Control	3
BA 207	Capacity Management	3

CERTIFICATE OF ACHIEVEMENT - 28 / 31 UNITS

Courses required for Certificate of Achievement in addition to the above:

CIS 101	Introduction to Computer Information Systems	3
BA 100	Fundamentals of Business	3
BA 107	Human Relations in Business	3
BA 171-174	Business Administration Occupational Work Experience	1-4
TOTAL CERTIFICATE REQUIREMENTS:		28/31

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Production and Inventory Management and complete the general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

BUSINESS COMPUTERIZED OFFICE TECHNOLOGIES PROGRAM

BILINGUAL BUSINESS OFFICE TECHNOLOGIES
CERTIFICATE OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 46	Business Communications	3
BCOT 96	Microsoft PowerPoint Core/Expert Level	1.5
BCOT 112	Microsoft Word for Windows	3.5
BCOT 113	Microsoft Excel	3.5
BCOT 133	Intermediate Typing/Keyboarding	3.5
BCOT 135	Typewriting Speed/Control Building	1
BCOT 161	Principles of Filing	1
TOTAL CERTIFICATE REQUIREMENTS:		17

NOTE: Although many of these courses are transferable, this certificate of completion is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

BILINGUAL LEGAL OFFICE SKILLS
CERTIFICATE OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 46	Business Communications	3
BCOT 82	Spanish Legal Office Terminology/ Vocabulary	1.5
BCOT 112	Microsoft Word For Windows (for MOUS Preparation)	3.5
BCOT 131	Beginning Typing/Keyboarding	3.5
BCOT 135	Typewriting Speed/Control Building	1
TOTAL CERTIFICATE REQUIREMENTS:		12.5

NOTE: Although many of these courses are transferable, this certificate of completion is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

MICROSOFT OFFICE USER SPECIALIST (MOUS) CERTIFICATION ACADEMY
CERTIFICATE OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOT 112	Microsoft Word for Windows	3.5
or BCOT 90	Microsoft Word Core Level	(1.5)
and BCOT 91	Microsoft Word Expert Level	(1.5)
BCOT 113	Microsoft Excel	3.5
or BCOT 92	Microsoft Excel Core Level	(1.5)
and BCOT 93	Microsoft Excel Expert Level	(1.5)
CIS 155	Microsoft Access	3
BCOT 96	Microsoft PowerPoint Core/Expert Level	1.5
BCOT 97	Microsoft Outlook Core Level	1.5
TOTAL CERTIFICATE REQUIREMENTS:		12/13

NOTE: Although many of these courses are transferable, this certificate of completion is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

OFFICE TECHNOLOGIES
CERTIFICATE OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 46	Business Communications	3
BCOT 89	Internet as a Business Communication Tool	3.5
BCOT 114	Introduction to Microsoft Office	3.5
BCOT 133	Intermediate Typing/Keyboarding	3.5
BCOT 161	Principles of Filing	1
BCOT 162	Business Spelling & Proofreading Skills	3
TOTAL CERTIFICATE REQUIREMENTS:		17.5

NOTE: Although many of these courses are transferable, this certificate of completion is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

LEGAL SECRETARIAL PROGRAM
LEGAL SECRETARY—251
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 147	Business Communications	3
BCOM 152	Job Search in the Business Field	1.5
BCOT 80	Processing Law Office Documents	2
BCOT 81	Legal Office Procedures	4
BCOT 83	Legal Office Terminology/Machine Transcription	4.5
BCOT 89	Internet as a Business Communication Tool	3.5
BCOT 112	Microsoft Word For Windows (For MOUS preparation)	3.5
BCOT 133	Intermediate Typing/Keyboarding	3.5
BCOT 135	Typewriting Speed/Control Building	1
BCOT 162	Business Spelling and Proofreading Skills	3
BL 52	Law Office Management	3
BL 101	Introduction to Law	3
TOTAL CERTIFICATE REQUIREMENTS:		35.5

ASSOCIATE IN ARTS REQUIREMENT:

Meet the requirements for a Certificate of Achievement in Legal Secretary – 251 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable. Please see a Business counselor or the respective department chairperson for additional alternatives.

OFFICE PROGRAM
FILE CLERK
CERTIFICATE OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 152	Job Search in the Business Field	1.5
BCOT 131	Beginning Typing/Keyboarding	3.5
or BCOT 61	Typing/Keyboarding Review	(2)
BCOT 161	Principles of Filing	1
BCOT 162	Business Spelling and Proofreading Skills	3
TOTAL CERTIFICATE REQUIREMENTS:		7.5/9

NOTE: Although many of these courses are transferable, this Certificate of Completion is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

GENERAL OFFICE—253

CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 46	Business Communications	3
BCOM 147	Business Communications	3
BCOM 152	Job Search in the Business Field	1.5
BCOT 60	Telephone Techniques/Customer Service	1
BCOT 89	Internet as a Business Communication Tool	3.5
BCOT 112	Microsoft Word for Windows (For MOUS preparation)	3.5
BCOT 114	Introduction to Microsoft Office	3.5
BCOT 131	Beginning Typing/Keyboarding	3.5
or BCOT 61	Typing/Keyboarding Review	(2)
BCOT 133	Intermediate Typing/Keyboarding	3.5
BCOT 135	Typewriting Speed/Control Building (Two 9-week classes)	2
BCOT 161	Principles of Filing	1
BCOT 162	Business Spelling and Proofreading Skills	3
TOTAL CERTIFICATE REQUIREMENTS:		30.5/32

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in General Office -253. Complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

RECEPTIONIST

CERTIFICATE OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 152	Job Search in the Business Field	1.5
BCOT 60	Telephone Techniques/Customer Service	1
BCOT 131	Beginning Typing/Keyboarding	3.5
or BCOT 61	Typing/Keyboarding Review	(2)
BCOT 161	Principles of Filing	1
TOTAL CERTIFICATE REQUIREMENTS:		5.5/7

NOTE: Although many of these courses are transferable, this Certificate of Completion is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

WORD PROCESSING—257

CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 46	Business Communications	3
BCOM 147	Business Communications	3
BCOM 152	Job Search in the Business Field	1.5
BCOT 112	Microsoft Word for Windows (For MOUS preparation)	3.5
BCOT 131	Beginning Typing/Keyboarding	3.5
or BCOT 61	Typing/Keyboarding Review	(2)
BCOT 133	Intermediate Typing/Keyboarding	3.5
BCOT 135	Typewriting Speed/Control Building (Two 9-week classes)	2
BCOT 161	Principles of Filing	1
BCOT 162	Business Spelling and Proofreading Skills	3
TOTAL CERTIFICATE REQUIREMENTS:		22.5/24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Word Processing - 257.

Complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

SECRETARIAL PROGRAM

SECRETARY / ADMINISTRATIVE ASSISTANT—265

CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOM 147	Business Communications	3
BCOM 152	Job Search in the Business Field	1.5
BCOT 89	Internet as a Business Communication Tool	3.5
BCOT 96	Microsoft Powerpoint Core/Expert Level	1.5
BCOT 97	Microsoft Outlook Core Level	1.5
BCOT 112	Microsoft Word for Windows(for MOUS preparation)	3.5
BCOT 113	Microsoft Excel	3.5
BCOT 114	Introduction to Microsoft Office	3.5
BCOT 116	Desktop Publishing – Word for Windows	1.5
or BCOT 117	Desktop Publishing – Microsoft Publisher	(1.5)
BCOT 133	Intermediate Typing/Keyboarding	3.5
BCOT 135	Typewriting Speed/Control Building (Two 9-week classes)	2
BCOT 155	Administrative Secretarial Procedures	4
BCOT 161	Principles of Filing	1
BCOT 162	Business Spelling and Proofreading Skills	3
TOTAL CERTIFICATE REQUIREMENTS:		36.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Secretary – 252 and complete general education requirements and electives to achieve a minimum of 60 units.

DIVISION / DEPARTMENT REQUIREMENTS

Completion of all the required courses listed in Secretary – 252 and additional courses listed below:

BCOT 97	Microsoft Outlook Core Level (for MOUS preparation)	1.5
BCOT 113	Microsoft Excel (for MOUS preparation)	3.5
TOTAL CERTIFICATE REQUIREMENTS:		38

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Secretary/Administrative Assistant - 265 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department chairperson for additional alternatives.

MEDICAL TRANSCRIPTIONIST
CERTIFICATE OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
BCOT 70	Medical Machine Transcription	4
BCOT 112	Microsoft Word for Windows (for MOUS preparation)	3.5
or BCOT 133	Intermediate Typing/Keyboarding	(3.5)
BCOT 135	Typewriting Speed/Control Building	1
BCOT 162	Business Spelling and Proofreading Skills	3
MA 161	Medical Terminology	3
TOTAL CERTIFICATE REQUIREMENTS:		14.5

OPTIONAL SPECIALTY

COMPLETION OF ALL THE COURSES LISTED BELOW:

SECRETARY - MEDICAL ENVIRONMENT		
BCOT 71	Computers in the Medical Office	3.5
BCOT 112	Microsoft Word for Windows (for MOUS preparation)	3.5
BCOT 133	Intermediate Typing/Keyboarding	3.5
BCOT 155	Administrative Secretarial Procedures	4
BCOT 162	Business Spelling and Proofreading Skills	3
TOTAL CERTIFICATE REQUIREMENTS:		17.5

BUSINESS LEGAL PROGRAM
PARALEGAL—233
ASSOCIATE IN ARTS DEGREE

SECTION A - LEGAL SPECIALTY CORE REQUIREMENTS:		UNITS
BL 56	Introduction to Computerized Legal Software	3
BL 100	Introduction to California Civil Procedures	3
BL 101	Introduction to Law	3
BL 102	Advanced California Civil Procedures	3
or BL 113	Fundamentals of Alternate Dispute Resolutions	(3)
BL 103	Legal Research	3
BL 120	Legal Ethics	1.5
or BL 171/174	Business Paralegal Occupational Work Experience	(1-4)
		16/19

DEPARTMENT REQUIREMENT:

BA 111	Business Law	3

Must Complete Additional Units Needed for A.A. Degree From Section B- Legal Specialty Courses

BL 52	Law Office Management	3
BL 57	Legal Document Production	3
BL 102	Advanced California Civil Procedures	3
BL 104	Advanced Legal Research	3
BL 105	Introduction to Federal and California Employment, Labor, and Workers' Compensation Law	3
BL 106	Bankruptcy Law	3
BL 107	Probate Procedures	3
BL 108	Family Law Procedures	3
BL 109	Torts and Personal Injury Law and Procedures	3
BL 112	Estate Planning for the Paralegal	3
BL 113	Fundamentals of Alternate Dispute Resolutions	3
BL 114	Law on the Internet	1.5
BL 115	Elder Law	3
BL 116	Criminal Law	3
BL 171-174	Business Paralegal Occupational Work Experience	(1-4)
BL 220	Landlord and Tenant Law	3
BL 230	Corporate Law	3
BL 250	Legal Interviewing	1.5
BL 260	Immigration Law	3
BUSR 125	Legal Aspects of Real Estate	3
CG 210	Job Search Strategies (Open Entry/ Open Exit)	1
TOTAL REQUIREMENTS MUST BE A MINIMUM OF:		33

NOTE: DEPARTMENT RECOMMENDATION: It is strongly recommended that all graduates who wish to be assisted with job placement through the Paralegal Department complete BL 173 or BL 174 Work Experience with a letter of recommendation from their employer and complete CG 210, Job Search Strategies.

General education requirements must also be completed to achieve a minimum of 60 units for an A.A. Degree in Paralegal. General Education courses must meet the American Bar Association Requirements. No course may be taken as "Credit by Exam."

THIS PROGRAM IS APPROVED BY THE AMERICAN BAR ASSOCIATION

PARALEGAL SPECIALTY REQUIREMENTS

In order to obtain a paralegal specialty, the student must complete the Paralegal A.A. degree or certificate. Units for the specialty may come from the Paralegal A.A. degree or certificate requirements from additional courses as outlined below:

OPTIONAL SPECIALTIES

COMMERCIAL		
BL 106	Bankruptcy Law	3
BL 220	Landlord and Tenant Law	3
BL 230	Corporate Law	3

PROBATE & ESTATE PLANNING		
BL 107	Probate Procedures	3
BL 112	Estate Planning for the Paralegal	3
BL 115	Elder Law	3

LITIGATION		
BL 102	Advanced California Civil Procedures	3
BL 104	Advanced Legal Research	3
BL 109	Torts and Personal Injury Law and Procedures	3

FAMILY LAW

BL 102	Advanced California Civil Procedures	3
or BL 113	Fundamentals of Alternate Dispute Resolutions	(3)
BL 104	Advanced Legal Research	3
BL 108	Family Law Procedures	3

LEGAL OFFICE PROCEDURES

BL 52	Law Office Management	3
BL 57	Legal Document Production	3

One unit from EACH of the following course modules must be taken for a total of 3 units:

BL 65A-65D	Spreadsheet (choose one unit)	1
BL 66A-66F	Database (choose one unit)	1
BL 67A-67E	Graphics Presentations (choose one unit)	1

PARALEGAL CERTIFICATE:

A student may earn a Paralegal Certificate if the student has already completed an A.A. degree or B.A. degree prior to taking any courses applied to the Paralegal Certificate. Students must complete a total of 21 units. These units must include BL 56, BL 100, BL 101, BL 103, BA 111, and the students may choose either BL 102, or BL 113 and BL 120 or BL 171-174. Any additional units needed to complete the 21 unit requirement may be taken from Section B. All 21 units must be taken at Cerritos College.

Students must consult with the Paralegal or Counseling Department prior to entering the certificate program. Any Business Legal courses which were taken prior to the completion of the student's requisite A.A. degree will not be counted as part of the certificate units.

CAREER OPPORTUNITIES: Escrow Secretary (203.382-022), File Clerk (206.362-010), Insurance Clerk (219.387-014), Legal Assistant (119.267-022), Paralegal (119.267-026), Legal Secretary (201.362-010).

BUSINESS LEGAL MINOR
CERTIFICATE OF COMPLETION (9 UNITS)

The Business Legal Minor may be obtained by completing three of the following core courses with a grade of Credit or "C" or higher: BL 101, Introduction to Law; BA 111, Business Law; BA 112, Business Law; BA 113, Legal Environment of Business.

Upon receiving your Certificate of Achievement or A.A. degree, a statement can be placed on your official transcript that you have completed the requirements for a Business Legal Minor.

A separate certification of completion of the requirements for a Business Legal Minor can also be issued. Check with the Business Administration or Paralegal Department for more information.

CAREER OPPORTUNITIES: This minor combined with your major provides legal knowledge essential in business, in private industry, and in self-employment.

BUSINESS COURT REPORTING / COMPUTERIZED SHORTHAND—235

The Court Reporters Board of California issues a certificate upon successful completion of the following requirements and passing of the state examination.

		HOURS
Vocabulary		80
English		135
Medical		125
Legal		175
Transcript Procedures		60
Apprenticeship Training		60
Technology		25
BUSC 114	Medical Terminology for Machine Shorthand	90
BUSC 115	Medical Shorthand for Court Reporters	90
BUSC 118	Deposition Procedures, Codes & Ethics	110
BUSC 119A	Beginning Computer-Aided Transcription	72
BUSC 119B	Intermediate Computer-Aided Transcription	72
BUSC 119C	Advanced Computer-Aided Transcription	72
BUSC 140	Computerized Shorthand Theory	108
BUSC 141	Computerized Shorthand Theory --Review/ Skill Development	108
BUSC 142	Intermediate Computerized Shorthand	108
BUSC 143	Computerized Shorthand Speed Building I	108
BUSC 144	Computerized Shorthand Speed Building II	108
BUSC 145	Computerized Shorthand Speed Building III	108
BUSC 146	Computerized Shorthand Speed Building (140-170 wpm)	108
BUSC 147	Computerized Shorthand Speed Building (160-190 wpm)	108
BUSC 148	Computerized Shorthand Speed Building (180-210 wpm)	108
BUSC 149	Computerized Shorthand Speed Building (190-225 wpm)	108
BUSC 173/174	Business Court Reporting/Computerized Shorthand Occupational Work Experience	60
BUSC 185	CSR/RPR Examination Preparation	27
BUSC 192	Transcription Procedures	54
ENGL 107	Vocabulary Building	54
ENGL 108	Vocabulary Building for Professionals	36
Choose from the following courses for a minimum of 135 hours:		
BCOT 162	Business Spelling and Proofreading Skills	54
BCOM 46	Business Communications	54
BUSC 57A	Beginning Aural Language Skills for Court Reporter	54
BUSC 57B	Advanced Aural Language Skills --for Court Reporters	54
ENGL 50A	English Grammar 54	
ENGL 53	Punctuation, Capitalization and Spelling	54
Choose from the following courses for a minimum of 175 hours:		
BUSC 113	Legal Terminology	72
BUSC 116	Introduction to Courtroom Procedures	108
BA 111	Business Law	54
BA 112	Business Law	54
AJ 103	Criminal Procedures	54
BL 101	Introduction to Law	54

Total requirements must be a minimum of 74.5/78.5 units

In order for a person to qualify from a school to take the state licensing examination, the person shall complete a program at a recognized school. For information concerning the minimum requirements that a court reporting program must meet in order to be recognized, contact: The Court Reporters Board of California; 2523 Capitol Oaks Drive, Suite 230, Sacramento, CA 95833; (916) 263-3660.

The Cerritos College Program is approved by the Court Reporters Board of California, 2523 Capitol Oaks Drive, Suite 230, Sacramento, CA 95833. Telephone: (916) 263-3660, Consumer Affairs.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Specific graduation requirements for court reporting students shall include the following minimum standards:

a) The student shall pass three 5-minute tests with 95% accuracy at each of the following speeds: 225 words per minute testimony (two-voice), 200 words per minute jury charge, and 180 words per minute literary.
b) The student shall pass at least two 5-minute time writings in keyboarding at a minimum of 60 gross words per minute with a maximum of 5 errors.
c) The student shall complete at least 60 verified hours of apprentice internship.

Achieve the minimum of 225 wpm shorthand speed and 60 net wpm typing speed.

Complete general education requirements and electives to achieve a minimum of 60 units. Plus Business courses as follows:

		UNITS
BUSC 113	Legal Terminology	3
BUSC 114	Medical Terminology	3
BUSC 116	Introduction to Courtroom Procedures	4
BUSC 118	Deposition Procedures, Codes & Ethics	4
BUSC 119A	Beginning Computer-Aided Transcription	2
BUSC 140	Computerized Shorthand Theory	3
BUSC 141	Computerized Shorthand Theory Review	3
BUSC 142	Intermediate Computerized Shorthand	3
BUSC 143	Computerized Shorthand Speed Building I	3
BCOM 147	Business Communications	3
TOTAL		31

CAREER OPPORTUNITIES: Employment primarily as a court reporter in superior and municipal courts and the deposition field.

BUSINESS REAL ESTATE—270

Class Completion Certificate	**3 units**
Real Estate Department Award	**12/13 units**
Real Estate Certificate of Achievement	**18/20 units**
California Real Estate Certificate	**25/26 units**
A.A. Degree in Business Real Estate	**60 units**

REAL ESTATE DEPARTMENT AWARD - 12/13 UNITS

REQUIREMENTS		UNITS
BUSR 101	Real Estate Principles	3
BUSA 100	Introduction to Accounting	3
or BUSA 101	Fundamentals of Accounting I	(4)
BA 111	Business Law	3
BA 121	Sales	3
or BA 114	Marketing	(3)
or BA 110	Advertising	(3)

REAL ESTATE CERTIFICATE OF ACHIEVEMENT - 18/20 UNITS

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
BUSR 101	Real Estate Principles	3
BUSR 173/174	Work Experience/Career Internship	3/4

Choose 12-13 units from the following:

BUSR 50	Introduction to Real Estate Software	3
BUSR 52	Mortgage Loan Brokering and Lending	3
BUSR 120	Real Estate Finance	3
BUSR 125	Legal Aspects of Real Estate	3
BUSR 130	Real Estate Practice	3
BUSR 131	Real Estate Appraisal	4

CALIFORNIA REAL ESTATE CERTIFICATE - 25/26 UNITS

STATE REQUIREMENTS		UNITS
BUSR 101	Real Estate Principles	3
BUSR 120	Real Estate Finance	3
BUSR 125	Legal Aspects of Real Estate	3
BUSR 130	Real Estate Practice	3
BUSR 131	Real Estate Appraisal	4
BUSR 160	Real Estate Economics	3

Electives: Select a minimum of 6 units from the following courses:

BA 111	Business Law	3
BUSA 100	Introduction to Accounting	3
BUSA 101	Fundamentals of Accounting I	4
BUSR 50	Introduction to Real Estate Software	3
BUSR 52	Mortgage Loan Brokering and Lending	3
BUSR 173/174	Work Experience/Career Internship	3/4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for the California Real Estate Certificate and complete six units from the following: BA 121, BCOM 147, BUSF 125, BUSR 50, BUSR 51, BUSR 53, BUSR 140, BUSR 151 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

Real Estate License Requirements

1. Salesperson's License:
   To qualify for a real estate Salesperson's License, an applicant must have completed a college-level course in Real Estate Principles. Those who must satisfy this new requirement must also (either prior to issuance of the original license or within eighteen months after issuance) complete two additional basic real estate courses selected from among the following:
   Real Estate Practice--Legal Aspects of Real Estate
   Real Estate Appraisal--Real Estate Finance
   Accounting (any course)--Real Estate Economics
   Business Law--Fundamentals of Escrow
   R.E. Property Management--R.E. Office Administration
   Mortgage Loan Brokering and Lending
2. Broker's License:
   Applicants for a Broker's License must have completed eight 3-unit college-level courses in addition to the experience requirement*. These courses must include the following five courses:
   Real Estate Practice--Legal Aspects of Real Estate

Real Estate Appraisal–R.E. Economics OR Accounting
Real Estate Finance
The remaining three courses are to be selected from the following:
R.E. Office Administration–Adv. Legal Aspects of R.E.
Advanced R.E. Appraisal–Practices of Escrow
Real Estate Principles–Business Law
Property Management–Fundamentals of Escrow
Mortgage Loan Brokering and Lending
*Experience requirement is fulfilled by any one of the following:

1. Two years as a real estate salesperson;
2. Bachelors degree from an accredited college or university;

or

3. Two years employment in related industries such as escrow offices, banks, savings and loans, or building industries.

NOTE: Effective 7/1/97, continuing education license renewal may be obtained by completing any one of the following three-unit college credit courses: Real Estate Practice, Legal Aspects of Real Estate, Property Management, and Real Estate Finance. In addition, every four years a three-hour seminar is required in each of the following areas: Ethics, Fair Housing, Agency Relationships, and Trustfund Banking.

Please see Business Counselors or Real Estate Department Chairman for additional licensing information.

REAL ESTATE SCHOLARSHIPS ARE AVAILABLE

Please see Business Counselors or Real Estate Department Chairman for further scholarship information.

CHEMISTRY—625
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

FOR THE CALIFORNIA STATE UNIVERSITY		UNITS
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
PHYS 100	Elementary Physics	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills*

CHEM 205	Quantitative Analysis Chemistry	4
MATH 220	Analytic Geometry and Calculus III	4

California State University – Fullerton*

MATH 220	Analytic Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4
PHYS 203	Engineering Physics	4

California State University – Long Beach*

BIOL 200	Principles of Biology	5
CHEM 205	Quantitative Analysis Chemistry	4
MATH 220	Analytic Geometry and Calculus III	4
PHYS 203	Engineering Physics	4

Foreign Language: A competence is encouraged in reading scientific German, French, Russian, Chinese or Japanese.

California Sate University – Los Angeles*

CHEM 205	Quantitative Analysis Chemistry	4
CIS 178	Programming in Fortran	3
MATH 220	Analytic Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4
PHYS 203	Engineering Physics	4

* The above listed requirements are for a Bachelor in Science Degree. See counselor for Bachelor of Arts Degree requirements.

University of California – Irvine

CHEM 205	Quantitative Analysis Chemistry	4
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 220	Analytic Geometry and Calculus III	4

Also, (4 or 5) transferable units. courses in Biology, Engineering, Mathematics, Physics, and Computer Science. Courses in basic Physics, Pre-Physics, and Pre-Calculus are not acceptable.

Recommended:

MATH 240	Calculus and Differential Equations	4

University of California – Los Angeles

CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 220	Analytic Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4
PHYS 203	Engineering Physics	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS.

Complete 60 units to include (1) the above required courses and (2) Associate in arts Degree general education requirements.

CAREER OPPORTUNITIES: After transfer to a four-year college or university and completion of a Bachelor's Degree program, graduates qualify for graduate study in Chemistry or Biochemistry, and for careers in teaching, medicine and in industrial and governmental scientific endeavors.

See Cerritos College Graduation Requirements.
See State University General Education List.

CHICANO STUDIES—511
TRANSFER PROGRAM

Chicano Studies is an interdisciplinary program of study which fosters an awareness of the contributions and participation of Mexican Americans in United States society. In its broader applications, the program explores the historical, political, social, and psychological aspects of the Mexican American experience as a minority group.

LOWER DIVISION MAJOR REQUIREMENTS

FOR SPECIFIC TRANSFER INSTITUTIONS		UNITS
California Sate University – Los Angeles		
SPAN 225	Mexican Literature in Translation	3
California State University – Long Beach		
SPAN 245	Introduction to Chicano/Mexican American Culture	3
ENGL 225	Mexican Literature in Translation	3

California State University – Dominguez Hills

RECOMMENDED COURSES:

SPAN 202	Intermediate Spanish	4
SPAN 245	Introduction to Chicano/Mexican American Culture	3

A Bachelor of Arts Degree in Mexican American studies is offered at California State University, Los Angeles. A Bachelor of Arts Degree in Chicano/Chicana studies is offered at California State University, Dominguez Hills. A Bachelor of Arts Degree in Chicano/Latino Studies is available at California State University, Long Beach. A Bachelor of Arts Degree in Ethnic Studies with an option in Chicano Studies is offered at Fullerton.

University of California – Los Angeles

One course in introduction to Chicano Life and Culture, one course in Chicanos in American Society, and the equivalent of five quarter terms in Spanish.

University of California – Riverside

SOC 210	American Minority Relations	3
or SOC 215	Sociology of Cultural Diversity: Challenge and Change	(3)
SPAN 245	Introduction to Mexican American Culture	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Completion of 60 units to include (1) the above required courses, (2) the AA Degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Completion of an upper division degree program can lead to employment as an elementary or secondary school teacher, school counselor, resource teacher, program coordinator, community, city, and state agencies. This program may also lead to employment in law, anthropology, and sociology.

See Cerritos College Graduation Requirements.
See State University General Education List.

CHILD DEVELOPMENT / EARLY CHILDHOOD—965

This program welcomes students from diverse cultural and ethnic backgrounds. Male students are encouraged to investigate career opportunities in Child Development.

The Child Development Department offers several different options for the student interested in working with young children. All full-time Child Development Instructors are available to advise students in all of the following areas:

A. Child Development Department Specializations – The specializations are designed to meet the minimum requirements of the Department of Social Services to teach in licensed private preschools and childcare programs. This is an entry-level career choice. The student is encouraged to pursue additional units in Child Development to advance in the field. Applications for the following Verifications of Completion must be made at the Health Occupations Division office anytime after the completion of courses.
- Associate Teacher Verification of Completion
- Preschool Director Verification of Completion
- School Age Child Care
- Infant/Toddler Teacher
- Family Child Care Verification of Completion

B. The Child Development Permit – The permit is granted by the California Commission on Teacher Credentialing and entitles the holder to teach in state and federally funded programs. This is an expanded career choice and has levels of advancement. The Department recommends that all Child Development students aspire to the Child Development Permit. Application for the permit is made through the California Commission on Teacher Credentialing.
- Assistant Teacher
- Associate Teacher
- Teacher
- Master Teacher
- Site Supervisor

C. Certificates of Achievement – This is a carefully planned course of classes that will meet requirements of The Department of Social Services and The Child Development Permit as well as when combined with the required general studies classes will lead to an AA Degree in Child Development. This offers even greater career options. Application for the Certificate of Achievement must be made through the Cerritos College Office of Admissions and Records by March 1 of the year you intend to graduate.
- Certificate of Achievement: Child Development/Early Childhood
- Certificate of Achievement: Child Development/Preschool Director
- Certificate of Achievement: Child Development/Special Education

D. AA Degree – Child Development – This option requires one of the Certificates of Achievement and the required general education courses at Cerritos College. (See college catalogue and counselor). This offers the best career options and prepares the student for transfer to a university. (Please note that classes with a number under 100 do not transfer.) Application for the A.A. degree must be made through the Cerritos College Office of Admissions and Records by March 1 of the year you intend to graduate.

DEPARTMENT SPECIALIZATIONS

A1. ASSOCIATE TEACHER SPECIALIZATION AND VERIFICATION OF COMPLETION: (12 UNITS)

The following courses meet the minimum educational requirements under Title 22 (Department of Social Services) to qualify the student to teach in a state licensed preschool or childcare program. The student must have taken the courses within the last five years and must have attained a grade of "C" or higher in each course. In addition, to qualify for this verification, the student must complete three out of four courses at Cerritos College.*

COURSES		UNITS
CD 110	Child Development – DS1	3
CDEC 111	Principles and Practices in Early Childhood Education - DS3	3
CDEC 112	Early Childhood Education Curriculum – DS3	3
CDEC 113	The Child, Family and Community – DS2	3

A2. PRESCHOOL DIRECTOR SPECIALIZATION AND VERIFICATION OF COMPLETION: (15 UNITS)

The following courses meet the minimum educational requirements under Title 22 (Department of Social Services) to qualify the student to be a director of a state licensed preschool or childcare program. The student must have attained a grade of "C" or higher in each course. In addition, to qualify for this verification, the student must complete three out of four courses at Cerritos College.* For employment, the Department of Social Services (DSS) will also require four years of teaching experience in a preschool or child care program if applicant has only the above minimum education requirements.

These courses alone do not qualify at any level of the Child Development Permit from the California commission of Teacher Credentials.

CORE COURSES		UNITS
CD 110	Child Development – DS1	3
CDEC 111	Principles and Practices in Early Childhood Education – DS3	3
CDEC 112	Early Childhood Education Curriculum – DS3	3
CDEC113	The Child, Family and Community – DS2	3

ADDITIONAL COURSE

CDEC 66	Administration and Supervision of Early Childhood Education Programs – DS6	3

A3. SCHOOL-AGE CHILD CARE SPECIALIZATION: (24 UNITS)

The following courses meet the minimum educational requirements for the Department of Social Services for school-age child caregivers. The student must have attained a grade of "C" or higher in each course.

COURSES		UNITS
CD 50	Arts and Crafts for School Age Children – DS 5 (offered in Spring semester only)	2
CD 110	Child Development – DS1	3
CD 115	Parent School Partnerships	3
CDEC 61	Nutrition, Health & Safety in Children's Programs – DS7	2
CDEC 63	Early Childhood Experiences in Language Arts and Social Sciences – DS 3	2
CDEC 113	The Child, Family, and Community – DS2	3
CDSA 152	School-Age Child Care Supervision and Administration – DS6 (offered in Spring semester only)	3
CDSA 155	School-Age Child Care Activities – DS5 (offered in Fall semester only)	3
CDSA 259	School-Age Child Care Practicum – DS5	3

A4. INFANT / TODDLER TEACHER SPECIALIZATION: (23 UNITS)

The following courses meet the minimum educational requirements for the Department of Social Services for infant/toddler caregivers. The student must have attained a grade of "C" or higher in each course.

COURSES		UNITS
CD 110	Child Development – DS1	3
CD 124	The Child in a Pluralistic Society	3
CDEC 61	Nutrition, Health and Safety in Children's Programs	2
CDEC 111	Principles and Practices in Early Childhood Education – DS3	3
CDEC 112	Early Childhood Education Curriculum – DS3	3
CDEC 113	The Child, Family, and Community – DS2	3
CDIT 51	Infant and Toddler Development	3
CDIT 52	Infant and Toddler Programs	3

A5. FAMILY CHILD CARE SPECIALIZATION AND VERIFICATION OF COMPLETION: (11 UNITS)

To qualify for this verification, the student must complete three out of four courses at Cerritos College. The student must have taken the courses with the last five years and must have attained a grade of "C" or higher in each course.*

COURSES		UNITS
CD 110	Child Development	3
CDFC 10	Family Child Care Providers (offered Spring semester only)	3
CDEC 61	Nutrition, Health, & Safety in Children's Programs	2

CHOOSE ONE OF THE FOLLOWING COURSES:

CDSA 155	School-Age Child Care Activities (offered Fall semester only)	3
CDEC 111	Principles and Practices in Early Childhood Education	3
CDIT 51	Infant and Toddler Development	3

*TO QUALIFY FOR CREDIT FOR VERIFICATION OF COMPLETION OR THE CERTIFICATE OF ACHIEVEMENT, COURSES NOT COMPLETED AT CERRITOS COLLEGE MUST BE COMPARABLE IN CONTENT, UNITS, AND GRANTED BY A COLLEGE OR UNIVERSITY ACCREDITED BY THE WESTERN ASSOCIATION OF SCHOOLS AND COLLEGES.

THE CHILD DEVELOPMENT PERMIT

The Child Development Department urges all students to apply for the permit as soon as they have completed six of the core units. After completing additional required units, students should apply for the next level.

For additional information on The Child Development Permit ask for the booklet issued by the California Commission on Teacher Credentialing available in the Health Occupations Division office.

B1. ASSISTANT – THE CHILD DEVELOPMENT PERMIT

This level authorizes the instruction of children under the supervision of a teacher.

COURSES (choose two from the following classes)		UNITS
CD 110	Child Development	3
CDEC 111	Principles and Practices in Early Childhood Education	3
CDEC 112	Early Childhood Education Curriculum	3
CDEC 113	The Child, Family, and Community	3

B2. ASSOCIATE TEACHER – THE CHILD DEVELOPMENT PERMIT

This authorizes instruction and supervision of an assistant

COURSES (must complete all of the core courses)		UNITS
CD 110	Child Development	3
CDEC 111	Principles and Practices in Early Childhood Education	3
CDEC 112	Early Childhood Education Curriculum	3
CDEC 113	The Child, Family, and Community	3

B3. TEACHER - The Child Development Permit

The following courses meet the requirements for the California Commission on Teacher Credentialing that are required to teach in state and federally funded programs for young children or any privately funded programs that also require the Child Development Permit.

COURSES		UNITS
CD 110	Child Development	3
CDEC 111	Principles and Practices in Early Childhood Education	3
CDEC 112	Early Childhood Education Curriculum	3
CDEC 113	The Child, Family, and Community	3
CDEC 64	Early Childhood Education Practicum	3

The student must also choose and complete an additional 9 units from the Certificate of Achievement in Child Development requirements to meet the required total of 24 units in Child Development.

The student must also complete 16 units in general education in the areas stated: English/Language Arts, Math or Science, Social Sciences, Humanities and/or Fine Arts. Also note that for the permit there is a required experience period.

B4. MASTER TEACHER – The Child Development Permit

Requires all that is stated above in Teacher description plus the following:

CDEC 230 – Adult Supervision in Child Care Program
6 units of specialization – please see a full-time faculty member in Child Development for advisement

Also note a more extensive experience period is required.

B5. SITE SUPERVISOR – The Child Development Permit

Requires an AA degree or 60 units, which must include the following courses. If the AA does not include the following courses then these course must be taken in addition:

COURSES		UNITS
CD 110	Child Development – DS1	3
CDEC 111	Principles and Practices in Early Childhood Education - DS3	3
CDEC 112	Early Childhood Education Curriculum – DS3	3
CDEC 113	The Child, Family and Community – DS2	3

Twelve additional Child Development units (choose from Certificate of Achievement – Early Childhood list)

COURSES		UNITS
CDEC 66	Administration of Early Childhood Programs	3
CDEC 67	Advanced Administration of Early Childhood Programs (offered in Spring semester only)	3
CDEC 230	Adult Supervision in Child Care Programs	3

Please note the required Experience Period.

CHILD DEVELOPMENT
CERTIFICATES OF ACHIEVEMENT

C1. CERTIFICATE OF ACHIEVEMENT:
CHILD DEVELOPMENT / EARLY CHILDHOOD - 965

In order to receive the Certificate of Achievement, all courses must be completed with a grade of "C" or higher.

NOTE: APPLICATION FOR CERTIFICATE OF ACHIEVEMENT MUST BE MADE AT THE OFFICE OF ADMISSIONS AND RECORDS.

COURSES		UNITS
CD 110	Child Development – DS1	3
CD 124	The Child in a Pluralistic Society – DS3C	3
CD 139	Observation, Assessment, and Positive Guidance of Childhood Behavior	3
CDEC 111	Principles and Practices in Early Childhood Education – DS3	3
CDEC 112	Early Childhood Education Curriculum – DS3	3
CDEC 113	The Child, Family, and Community – DS2	3
CDEC 61	Nutrition, Health & Safety in Children's Programs – DS3	2
CDEC 62	Creativity and the Pre-School Child – DS3	2
CDEC 63	Early Childhood Experiences in Language Arts and Social Sciences - DS3	2
or CDEC 134	Heads Up Reading – A, B	2
CDEC 64	Early Childhood Education Practicum – DS3	3
CDEC 65	Music and Movement for Young Children – DS3	2
CDEC 133	Early Childhood Experiences in Math and Sciences – DS3	2
*CDEC 173	Early Childhood Education Occupational Work Experience – DS3	3
or CDEC 174	Early Childhood Education Occupational Work Experience DS3	(4)

Choose one of the following courses:

CDIT 51	Infant and Toddler Development	3
CDIT 52	Infant and Toddler Programs	3
CDSA 155	School-Age Child Care Activities – DS5 (offered Fall semester only)	3
CDSE 50	Survey of Special Education	3
CDSE 52	Special Education Inclusion in Early Childhood Programs	3
CDEC 230	Adult Supervision in Child Care Programs	3
TOTAL CERTIFICATE REQUIREMENTS		37/38

*Students must be concurrently enrolled in a minimum of seven units in CDEC, including work experience. CDEC 173 requires that you work or volunteer a minimum of 15 hours per week and CDEC 174 requires that you work or volunteer a minimum of 20 hours per week in a program for young children. Work Experience classes may be taken more than one semester.

C2. CERTIFICATE OF ACHIEVEMENT:
CHILD DEVELOPMENT / PRESCHOOL DIRECTOR - 970

NOTE: APPLICATION FOR CERTIFICATE OF ACHIEVEMENT MUST BE MADE AT THE OFFICE OF ADMISSIONS AND RECORDS

Students must complete the Certificate of Achievement requirements listed in Child Development/Early Childhood and the following courses:

COURSES		UNITS
Certificate of Achievement in Child Development/ Early Childhood		37/38
CDEC 66	Administration and Supervision of Early Childhood Education Programs – DS6	3
CDEC 67	Adv. Administration and Supervision of Early Childhood Education Programs – DS6 (offered in Spring semester only)	3
CDEC 230	Adult Supervision on Child Care Programs	3
TOTAL CERTIFICATE REQUIRMENTS		46/47

C3. CERTIFICATE OF ACHIEVEMENT:
CHILD DEVELOPMENT / SPECIAL EDUCATION - 966

NOTE: APPLICATION FOR CERTIFICATE OF ACHIEVEMENT MUST BE MADE AT THE OFFICE OF ADMISSIONS AND RECORDS

COURSES		UNITS
CD 50	Arts and Crafts for School-Age Children	2
CD 110	Child Development	3
CD 124	The Child in a Pluralistic Society	3
CD 139	Observation, Assessment and Positive Guidance of Childhood Behavior	3
CDSE 50	Survey of Special Education	3
CDSE 52	Special Education Inclusion in Early Childhood Programs	3
CDEC 133	Early Childhood Experiences in Math and Sciences	2
SL 101	Beginning American Sign Language	3
PSYC 101	General Introductory Psychology	3
HO 50	Emergency and Safety Management	2
*CDSE 73/74	Special Education Assistant Occupational Work Experience	3 - 4
TOTAL CERTIFICATE REQUIREMENTS		30/31

*Students must be concurrently enrolled in a minimum of seven units in CDEC, including work experience. CDSE 73 requires that you work or volunteer a minimum of 15 hours per week and CDSE 74 requires that you work or volunteer a minimum of 20 hours per week in a program for young children. Work Experience classes may be taken more than one semester.

ASSOCATE IN ARTS DEGREE REQUIREMENTS

Meet the requirements for a Certificate of Achievement in Special Education Assistant. Plus, for an A.A. Degree, a student must take SL 102, electives and general education requirements to achieve a minimum of 60 units.

ASSOCIATE IN ARTS DEGREE: CHILD DEVELOPMENT

D1. ASSOCIATE IN ARTS DEGREE:

Meet the requirements for a Certificate of Achievement. Plus, for an AA Degree a student must complete PSYCH 101 and general education requirements to achieve a minimum of 60 units.

RECOMMENDED ELECTIVES: CDSE 50, CD 50, CDIT 51, CDIT 52, CDSE 52, CDSA 155, CDPE 10, EDT 52, EDT 100, EDT 104

See Cerritos College Graduation Requirements. Students need advisement from a Cerritos College counselor for general education requirements.

COMPUTER AND INFORMATION SCIENCES PROGRAMS

COMPUTER AND INFORMATION SCIENCES NETWORKING TECHNICIANS / OPERATORS—611 CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
CIS 70A	Networking Fundamentals	2.5
CIS 70B	Local Area Networks	2.5
CIS 70D	Introduction to TCP/IP	2.5
CIS 70E	Internetworking	2.5
CIS 70F	Networking Protocols	2.5
CIS 70G	Wide Area Networks	3.5
or CIS 121	Introduction to the Internet	(1.5)
and CIS 205	Programming HTML for the Web	(1.5)
CIS 70H	Networking Analysis & Design	2.5
CIS 271, 272, 273	Work Experience	3
		21/21.5

Choose 7.5 units from the following courses:

CIS 56	Microcomputer Disk Operating Systems	1.5
CIS 75	SQL Administration	3
CIS 141	AS/400 Operations	3
CIS 105	Using Microsoft Windows	1.5
CIS 201	Systems Analysis and Design	3
CIS 205	Programming HTML for the Web	1.5
CIS 210	Novell Netware Administration	3
CIS 212	Windows 2000 Professional and Server	3
CIS 213	Microsoft Windows Directory Services	3.5
CIS 214	UNIX	3
TOTAL CERTIFICATE REQUIREMENTS		28.5/29

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements of a Certificate of Achievement in Computer and Information Sciences Network Technicians/Operators certificate and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this certificate/A.A. Degree is nontransferable.

See Cerritos College graduation requirements.

COMPUTER AND INFORMATION SCIENCES OPERATOR—283 CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
CIS 52*	Data Processing Mathematics	3
CIS 102	Introduction to Microcomputer Hardware and Applications Software	3
or CIS 101	Introduction to Computer Information Systems	(3)
CIS 103	Computer Programming Logic	3
CIS 141	AS/400 Operations	3
CIS 141A	Operate iSeries (AS/400) using Operations Navigator	1.5
CIS 240	AS/400 Control Language Programming	3
BCOM 147**	Business Communications	3
or ENGL 52**	Introduction to College Composition	(3)
or ENGL 100**	Freshman Composition	(3)
or ENGL 155**	Technical Writing	(3)

Choose fifteen units from the following courses:

BCOT 52	Data Entry	2
CIS 56	Microcomputer Disk Operating Systems	3
CIS 70A	Networking Fundamentals	3
CIS 75	SQL/Administration	3
CIS 105	Using Microsoft Windows	1.5
CIS 121	Introduction to Internet	1.5
CIS 140	Query/400	1
CIS 170	Programming in BASIC	3
CIS 175	RPG Programming	3
CIS 176	COBOL Programming	3
CIS 180	Programming in C/C++	3
CIS 195	Business Data Communications Systems	3
CIS 201	Systems Analysis and Design	3
CIS 207	SQL Programming	3
CIS 208	Oracle Database Programming	3
CIS 210	Novell Netware Administration	3
CIS 212	Windows 2000 Professional and Server	3
CIS 214	UNIX	3
CIS 220	Windows Programming	3
CIS 271/272 273/274	CIS Occupational Work Experience	1/2/3/4
TOTAL CERTIFICATE REQUIREMENTS:		33

*Meets general education requirement, may substitute MATH 60
**Meets A.A. Degree general education requirements.
NOTE: CIS 52, 101, 102, or 103 meet A.A. degree general education communication and analytic thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Computer and Information Sciences Operator and complete general education requirements and electives to achieve a minimum of 60 units.

See Cerritos College Graduation Requirements.
Please see a counselor or the respective department for additional alternatives.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

COMPUTER AND INFORMATION SCIENCES PROGRAMMER—284

CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARMENT REQUIREMENTS		UNITS
CIS 52*	Data Processing Mathematics	3
CIS 101	Introduction to Computer Information Systems	3
or CIS 102	Introduction to Microcomputer Hardware and Applications Software	(3)
CIS 103	Computer Programming Logic	3
CIS 171	Visual BASIC Programming	3
or CIS 180	Programming in C/C++	(3)
or CIS 182	JAVA Programming	(3.5)
CIS 175	RPG Programming	3
or CIS 176	COBOL Programming	(3)
CIS 207	SQL Programming	3
or CIS 80	Programming in Access	(3)
or CIS 208	Oracle Database Programming	(3)
CIS 222	Advanced RPG Programming	3.5
or CIS 221	Advanced Visual Basic	(3.5)
or CIS 223	Visual RPG	(3)
or CIS 280	Object-Oriented Programming in C++	(3)
or CIS 282	Advanced JAVA Programming	(3.5)
BCOM 147**	Business Communications	3
or ENGL 52**	Introduction to College Composition	(3)
or ENGL 100**	Freshman Composition	(3)
or ENGL 155**	Technical Writing	(3)

Choose 12 units from the following courses:

CIS 80	Programming in Access	3
CIS 82	Visual Basic Scripting	1.5
CIS 121	Introduction to Internet	1.5
CIS 125	JAVASCRIPT Programming	1.5
CIS 140	Query/400	1
CIS 141	AS/400 Operations	3
CIS 170	Programming in BASIC	3
CIS 171	Visual BASIC Programming	3
CIS 180	Programming in C++	3
CIS 182	JAVA Programming	3.5
CIS 201	Systems Analysis and Design	3
CIS 205	Programming in HTML for the World Wide Web	1.5
CIS 206	XML Programming	3
CIS 207	SQL Programming	3
CIS 208	Oracle Database Programming	3
CIS 210	Novell Netware Administration	3
CIS 212	Windows 2000 Professional and Server	3
CIS 220	Windows Programming	3
CIS 221	Advanced Visual Basic	3.5
CIS 222	Advanced RPG Programming	3.5
CIS 223	Visual RPG	3
CIS 271/272/ 273/274	CIS Occupational Work Experience	1/2/3/4
CIS 280	Object-Oriented Programming in C++	3
CIS 282	Advanced JAVA Programming	3.5
CIS 284	CGI and PERL Programming	3.5
CIS 285	Active Server Page (ASP) Programming	3
CIS 292	Data Structures and Programming	3
TOTAL CERTIFICATE REQUIREMENTS:		36/37

*Meets general education requirement, may substitute MATH 60
**Meets general education requirement.
NOTE: CIS 52, 101, 102, or 103 meet A.A. Degree general education communication and analytic thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Computer and Information Sciences Programmer and complete general education requirements and electives to achieve a minimum of 60 units.

See Cerritos College Graduation Requirements.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.
Please see counselors or the respective department for additional alternatives.

COMPUTER AND INFORMATION SCIENCES SYSTEMS ANALYST—285 CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		UNITS
BCOT 96	Microsoft PowerPoint Core/Expert	1.5
CIS 52*	Data Processing Mathematics	3
CIS 70A	Network Fundamentals	2.5
CIS 101	Introduction to Computer Information Systems	3
or CIS 102	Introduction to Microcomputer Hardware and Applications Software	(3)
CIS 103	Computer Programming Logic	3
CIS 201	Systems Analysis and Design	3
CIS 207	Database Design and SQL Programming	3
or CIS 208	Oracle Programming	(3)
or CIS 80	Programming in Access	(3)
CIS 251	Advanced Systems Analysis and Design	3
BCOM 147**	Business Communications	3
or ENGL 52**	Introduction to College Composition	(3)
or ENGL 100**	Freshman Composition	(3)
or ENGL 155**	Technical Writing	(3)
	Choose 6 units from the following courses:	
CIS 56	Microcomputer Disk Operating Systems	3
CIS 141	AS/400 Operations	3
CIS 151	Microsoft Excel	3.5
CIS 171	Visual BASIC Programming	3
CIS 210	Novell Netware Administration	3
CIS 212	Microsoft Windows NT	3
	Choose 6 units from the following courses:	
BCOT 117	Introduction to Desktop Publishing Microsoft Publisher	
CIS 121	Introduction to Internet	1.5
CIS 125	JavaScript Programming	1.5
CIS 141	AS/400 Operations	3
CIS 151	Microsoft Excel	3.5
CIS 155	Microsoft Access	3
CIS 171	Visual BASIC Programming	3
CIS 175	RPG Programming	3
CIS 176	COBOL Programming	3
CIS 180	Programming in C/C++	3
CIS 205	Programming in HTML for the World Wide Web	1.5
CIS 210	Novell Netware Administration	3
CIS 212	Microsoft Windows NT	3
CIS 214	UNIX	3
CIS 220	Windows Programming	3
CIS 222	Advanced RPG Programming	3.5
CIS 223	Visual RPG	3
CIS 271/272 273/274	CIS Occupational Work Experience	1/2/3/4
CIS 280	Object-Oriented Programming in C++	
CIS 292	Data Structures and Programming	3
TOTAL CERTIFICATE REQUIREMENTS:		37.5

*Meets A.A. general education requirement, may substitute MATH 60

**Meets A.A. general education requirement.

NOTE: CIS 52, 101, 102, or 103 meet A.A. Degree general education communication and analytic thinking.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Computer and Information Sciences--Systems Analyst and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see counselors or the respective department for additional alternatives.

COMPUTER AND INFORMATION SCIENCES MICROCOMPUTER SPECIALIST—286 CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS:		UNITS
CIS 52*	Data Processing Mathematics	3
BCOT 96	Microsoft PowerPoint Core/Expert	1.5
BCOT 117	Introduction to Desktop Publishing Microsoft Publisher	1.5
CIS 56	Microcomputer Disk Operating Systems	3
CIS 102	Introduction to Microcomputer Hardware and Applications Software	3
CIS 103	Computer Programming Logic	3
CIS 105	Using Microsoft Windows	1.5
CIS 151	Microsoft Excel	3.5
CIS 155	Microsoft Access	3
CIS 171	Visual BASIC Programming	3
BCOM 147**	Business Communications	3
or ENGL 52**	Introduction to College Composition	(3)
or ENGL 100**	Freshman Composition	(3)
or ENGL 155**	Technical Writing	(3)
	Choose 9 units from the following courses:	
BCOT 96	Microsoft PowerPoint Core/Expert	1.5
BCOT 117	Introduction to Desktop Publishing Microsoft Publisher	1.5
CIS 58	Windows for A+ Certification	1.5
CIS 70A	Network Fundamentals	2.5
CIS 121	Introduction to Internet	1.5
CIS 170	Programming in BASIC	3
CIS 180	Programming in C/C++	3
CIS 182	JAVA Programming	3.5
CIS 201	Systems Analysis and Design	3
CIS 205	Programming in HTML for the World Wide Web	1.5
CIS 206	XML Programming	1.5
CIS 210	Novell Netware Administration	3
CIS 212	Microsoft Windows NT	3
CIS 214	UNIX	3
CIS 220	Windows Programming	3
CIS 271/272/ 273/274	CIS Occupational Work Experience	1/2/3/4
CIS 280	Object-Oriented Programming in C++	3
TOTAL CERTIFICATE REQUIREMENTS:		35

*Meets A.A. Degree general education requirement, may substitute MATH 60

**Meets A.A. Degree general education requirement.

NOTE: CIS 52, 102, or 103 meets A.A. Degree general education communication and analytic thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for Certificate of Achievement in Computer and Information Sciences Microcomputer Specialist and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see counselors or the respective department for additional alternatives.

COMPUTER AND INFORMATION SCIENCES IBM AS/400 SPECIALIST—287 CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
CIS 52*	Data Processing Mathematics	3
CIS 103	Computer Programming Logic	3
CIS 140	QUERY/400	1
CIS 141	AS/400 Operations	3
or CIS 142A	AS/400 Operations Part 1	(1.5)
and CIS 142B	AS/400 Operations and Facilities Part 2	(1.5)
CIS 175	RPG Programming	3
CIS 207	Database Design and SQL	3
CIS 222	Advanced RPG Programming	3.5
or CIS 223	Visual RPG	(3)
CIS 240	AS/400 Control Language Programming	3
BCOM 147**	Business Communications	3
or ENGL 52**	Introduction to College Composition	(3)
or ENGL 100**	Freshman Composition	(3)
or ENGL 155**	Technical Writing	(3)
	Choose 5.0 units from the following courses:	
CIS 70A	Network Fundamentals	2.5
CIS 121	Introduction to the Internet	1.5
CIS 141A	Operate iSeries (AS/400) using Operations Navigator	1.5
CIS 171	Visual Basic Programming	3
CIS 176	COBOL Programming	3
CIS 180	Programming in C/C++	3
CIS 182	Java Programming	3.5
CIS 205	Programming in HTML	1.5
CIS 271/272 CIS273/274	BCIS Occupational Work Experience-	1/2/3/4
TOTAL CERTIFICATE REQUIREMENTS:		30/30.5

*Meets general education requirement, may substitute MATH 60

**Meets A.A. Degree general education requirement, may substitute ENGL 100

NOTE: CIS 52 or CIS 103 meet A.A. Degree general education communication and analytic thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Computer and Information Sciences IBM AS/400 Specialist and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see counselors or the respective department for additional alternatives.

COMPUTER AND INFORMATION SCIENCES WEB MASTER—288 CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
CIS 52*	Data Processing Mathematics	3
CIS 120	Web Design with Microsoft FrontPage	1.5
CIS 121	Introduction to the Internet	1.5
CIS 125	JavaScript Programming	1.5
or CIS 82	Visual Basic Scripting	(1.5)
CIS 155	Microsoft Access	3
CIS 205	Programming in HTML for the World Wide Web	1.5
CIS 284	CGI and PERL Programming	3.5
or CIS 285	Active Server Page (ASP) Programming	(3)
ART 186	Computer Graphics in Art and Design	3
or ART 188	Design for Desktop Publishing	3
BCOM 147**	Business Communications	3
or ENGL 52**	Introduction to College Composition	(3)
or ENGL 100**	Freshman Composition	(3)
or ENGL 155**	Technical Writing	(3)
	Choose 6 units from the following courses:	
ART 186	Computer Graphics in Art and Design	3
ART 192	Photoshop/Digital Imaging	3
ART 194	Multimedia Design	3
ART 196	Introduction to Designing Web Graphics	3
	Choose 6-6.5 units from the following courses:	
BCOT 96	Microsoft PowerPoint Core/Expert	1.5
CIS 171	Visual Basic Programming	3
CIS 180	Programming in C/C++	3
CIS 206	XML Programming	1.5
CIS 207	SQL Programming	3
CIS 208	Oracle Database Programming	3
CIS 221	Advanced Visual Basic Programming	3
CIS 280	Object-Oriented Programming in C++	3
CIS 282	Advanced Java Programming	3.5
ART 186	Computer Graphics in Art and Design	3
ART 192	Photoshop/Digital Imaging	3
ART 194	Multimedia Design	3
ART 195	3D Computer Modeling	3
ART 196	Introduction to Designing Web Graphics	3
TOTAL CERTIFICATE REQUIREMENTS:		30/31

*Meets general education requirement, may substitute MATH 60

**Meets A.A. Degree general education requirements.

NOTE: CIS 52 meets A.A. Degree general education communication and analytical thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Computer and Information Sciences Web Master and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this certificate/A.A. Degree is nontransferable.

Please see a counselor or the respective department for additional alternatives.

COMPUTER SCIENCE—610
TRANSFER PROGRAM

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

NOTE: Computer Science is a rapidly changing field. Contact a Cerritos College Counselor in order to optimize preparation for transfer.

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4

California State University - Dominguez Hills

CIS 180	Programming in C/C++	3
CIS 230	Assembly Programming for Microcomputers	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

California State University - Long Beach

CIS 180	Programming in C/C++	3
CIS 182	JAVA Programming	3.5
CIS 280	Object-Orientated Programming in C++	3
CIS 178	Programming in Fortran	3
CIS 230	Assembly Programming for Microcomputers	3
ENGL 100	Freshman Composition	3
MATH 220	Analytic Geometry and Calculus III	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

California State University - Los Angeles

CIS 230	Assembly Programming for Microcomputers	4
CIS 178	Programming in Fortran	3
CIS 292	Data Structures	3.5
ENG 103	Critical and Argumentative Writing	3
MATH 220	Analytic Geometry and Calculus III	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

California State University – Fullerton

CIS 176	Cobol Programming	3
CIS 214	Unix	3
CIS 224	Advanced Cobol Programming	3
CIS 230	Assembly Programming for Microcomputers	4
CIS 280	Object-Orientated Programming in C++	3
CIS 292	Data Structures	3.5
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
or CHEM 111	General Chemistry	(5)
CHEM 112	General Chemistry	5
or GEOL 101	The Earth & Environment	(4)
or GEOL 201	Earth History	(4)
BIOL 120	Introduction to Biological Sciences	4
or BIOL 200	Principles of Biology	(5)
and BIOL 201	Principles of Biology	(5)

California State Polytechnic University - Pomona

CIS 180	Programming C/C++	3
CIS 182	JAVA Programming	3.5
CIS 230	Assembly Programming for Microcomputers	4
CIS 280	Object-Oriented Programming in C/C++	3
CIS 282	Advanced JAVA Programming	3.5
CIS 292	Data Structures	3.5
CHEM 111	General Chemistry	5
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

Recommended Courses

MATH 220	Analytical Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4

University of California - Irvine (Information and Computer Science)

CIS 180	Programming in C/C++	3
and CIS 280	Object-Orientated Programming in C++	3
CIS 125	JavaScript Programming	1.5
and CIS 182	Java Programming	3.5
MATH 220	Analytical Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4

Recommended Courses

CIS 282	Advanced JAVA Programming	3.5
CIS 292	Data Structures	3.5

University of California - Los Angeles

CIS 180	Programming in C/C++	3
CIS 280	Object-Orientated Programming in C++	3
ENGL 103	Critical Argumentative Writing	3
MATH 220	Analytical Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

Four courses from across the following categories: Humanities, Social Sciences, and Fine Arts. One Life Science course. Contact counselor for assistance in selecting these courses.

ASSOCIATE IN ARTS REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18-unit minimum and all AA degree general education requirements for a total of at least 60-units.

CAREER OPPORTUNITIES: Computer science graduates are primarily prepared for the area of software design. Graduates usually are recruited by hardware manufacturers and are then involved in the design of vendor supplied software, such as compilers, operating systems, and utility programs.

See Cerritos College Graduation Requirements.

See State University General Education List.

COSMETOLOGY—880

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements of a Certificate of Achievement in Cosmetology.

Additional coursework will be necessary to complete Cerritos College Graduation Requirements and achieve the minimum of 60 units.

The cosmetology curriculum consists of a minimum of 1600 clocked hours of cosmetology class work. The curriculum prepares the student for the State Board of Cosmetology Examination.

Students enrolling in the Cosmetology Program should contact the Cosmetology Department or a Cosmetology counselor for information regarding the cost of the kit, uniforms, and books.

Students may complete the Cosmetology Program by enrolling in one of the following plans:

FULL TIME--DAYS: The full-time day student may complete the 1600-hour program by (1) two regular semesters and one eight-week summer session over a period of one calendar year, or (2) three regular semesters over a period of one and one-half years.

EVENINGS: Students enrolling in this plan attend class 5:30 p.m.-10:30 p.m. Monday through Thursday. It requires approximately five or six semesters to complete the 1600-hour program.

MAJOR REQUIREMENTS

FULL TIME (8:30 a.m. to 5:00 p.m. Monday through Friday)

		UNITS
COS 50A	Introductory Cosmetology I	6.5
COS 50B	Introductory Cosmetology II	6.5
COS 50C	Introductory Cosmetology III	6.5
COS 51A	Intermediate Cosmetology I	6.5
COS 51B	Intermediate Cosmetology II	6.5
COS 51C	Intermediate Cosmetology III	6.5
COS 52A	Advanced Cosmetology I	6.5
COS 52B	Advanced Cosmetology II	6.5
COS 52C	Advanced Cosmetology III	6.5
		58.50

PART TIME--EVENING (5:30-10:30 p.m. Monday through Thursday)

		UNITS
COS 60A	Introductory Cosmetology Theory & Manipulation	10
COS 60B	Introductory Cosmetology II	10
COS 61A	Intermediate Cosmetology I	10
COS 61B	Intermediate Cosmetology II	10
COS 62A	Advanced Cosmetology I	10
COS 62B	Advanced Cosmetology II	10
		60

COS 53 may be repeated for a maximum of 19.5 units as necessary to complete the 1600 hours required by the State Board of Cosmetology.

Vocational and Professional Opportunities at Completion of Program and after obtaining the Cosmetologist License: Cosmetologist, manager of a salon, hairstylist, owner of a salon, makeup artist, cosmetic demonstrator, tint technician.

See Cerritos College Graduation Requirements.

THE CERTIFICATE OF ACHIEVEMENT		UNITS
COS 50A	Introductory Cosmetology I	6.5
COS 50B	Introductory Cosmetology II	6.5
COS 50C	Introductory Cosmetology III	6.5
or COS 70A	Introductory Cosmetology	(8.0)
COS 51A	Intermediate Cosmetology I	6.5
COS 51B	Intermediate Cosmetology II	6.5
COS 51C	Intermediate Cosmetology III	6.5
or COS 70B	Intermediate Cosmetology	(8.0)
COS 52A	Advanced Cosmetology I	6.5
COS 52B	Advanced Cosmetology II	6.5
COS 52C	Advanced Cosmetology III	6.5
or COS 70C	Advanced Cosmetology Manipulation	(8.0)
MINIMUM UNITS REQUIRED		58.50
MINIMUM HOURS REQUIRED		1600

*Part-time day or evening students will substitute COS 60A, 60B, 61A, 61B, 62A, 62B for COS 50A, 50B, 50C, 51A, 51B, 51C, 52A, 52B, 52C. Also, part-time evening students will substitute COS 71A, 71B, 71C for COS 70A, 70B, 70C.

COS 53 may be repeated for a maximum of 19.5 units as necessary to complete the 1600 hours required by the Bureau of Barbering and Cosmetology.

Employment Opportunities upon Completion of the Program: Hair Stylist or Hair Technician.

COURT REPORTING—SEE BUSINESS COURT REPORTING

CULINARY ARTS CHEF'S TRAINING—954
CERTIFICATE OF ACHIEVEMENT

		UNITS
CA 52	Food Production	9.5
CA 53	Commercial Food Production: Pantry Items	9.5
CA 54	Commercial Food Production: Meats & Poultry	9.5
CA 60	Foods Purchase and Control	3
CA 101	Introduction to Food Service Safety & Sanitation	2
TOTAL CERTIFICATE UNITS		33.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Complete 60 units to include HO 151, (1) the above requirements for the Certificate of Achievement, (2) the Associate in Arts Degree requirements, and one semester of work experience, and (3) electives as needed.

Additional Expenses: Students will be required to purchase set of knives and two sets of uniforms.

CAREER OPPORTUNITIES: Employment in foods industry as sous chef, chef steward. Also short order cook, pantry person, garde helper, roast cook.

See Cerritos College Graduation Requirements.

CULINARY ARTS PROFESSIONAL BAKING—955
CERTIFICATE OF ACHIEVEMENT

CA 60	Foods Purchase and Control	3
CA 80	Introduction to Baking Skill	4
CA 81	Professional Baking & Pastry Production I	5
CA 82	Professional Baking & Pastry Production II	5
CA 85	Advanced Professional Pastry Design & Decorating	3
CA 101	Introduction to Food Service Safety & Sanitation	2
TOTAL CERTIFICATE UNITS		22

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the above requirements for Certificate of Achievement and HO 151. Plus for an A.A. Degree the student must complete the A.A. Degree general education requirements; and electives to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment as a professional baker, pastry chef, pastry cook, and specialty baker.

DANCE—136
TRANSFER PROGRAM

The Dance Department provides a major of study with emphasis in Modern, Jazz and Ballet techniques, composition and performance. It gives the General Education student and the student in closely related areas, experience in dance as an art form.

The following core of courses will provide the dance student with a solid background for upper division work and a transfer curriculum.

See Counselor.

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND FOR THE UNIVERSITY OF CALIFORNIA

		UNITS
PE 182A	Modern Dance (Beginning)	2
PE 182B	Modern Dance (Intermediate)	2
PE 186A	Ballet (Beginning)	2
PE 186B	Ballet (Intermediate)	2
PE 191	History of Dance	3
TH 140	Theatre Dance - Beginning Jazz	2
TH 141	Theatre Dance - Intermediate Jazz	2

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Dominguez Hills

PE 116	Professional Activities for Modern Dance	3
PE 181	Introduction to Dance Cultures of the World	2
TH 140	Theatre Dance – Beginning Jazz	2

California State University - Fullerton:

PE 184	Choreography Improvisation	3
PE 187	Dance Repertory	2
PE 188	Dance Performance	2
PE 190	Rhythmic Analysis	3

University of California - Irvine:

Dance (All emphases)

PE 191	History of Dance (lecture)	3

Choreography Emphasis or Performance Emphasis

PE 184	Choreography Improvisation	3
PE 190	Dance Notations (lecture)	3
TH 110	Fundamentals of Acting	3

History Emphasis

PE 184	Choreography Improvisation	3
PE 190	Dance Notations (lecture)	3

*STUDENTS WISHING TO MAJOR OR MINOR IN DANCE MUST AUDITION FOR PLACEMENT AT EACH OF THE UNIVERSITIES.

See a Counselor for additional requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of least 60 units.

RECOMMENDED ELECTIVES: PE 184, PE 187, PE 188

CAREER OPPORTUNITIES: Completion of an upper division degree program can lead to employment as a teacher at the secondary, community college or university level in both public and private schools; a performer in dance companies, on television or in dance films/choreographer. Students majoring in such areas as Recreation, Theatre, Physical Education, Fine Arts and Elementary Education would also benefit from the courses within this Dance curriculum.

See Cerritos College Graduation Requirements.

DENTAL ASSISTING—952

Curriculum leading to Certificate of Achievement and eligibility to write both the California State Board Examination as a Registered Dental Assistant and the National Certifying Board Examination as a Certified Dental Assistant.

LENGTH AND KIND OF PROGRAM

The program is three semesters in length (Fall, Spring, and Summer Session-6 wks). However, students may enter in the Spring Semester by taking selected courses. See the Dental Assisting Counselor.

General education and Dental Assisting classes are scheduled on the College campus and correlated clinical experiences in patient care are obtained at selected dental schools and private dental offices.

Employment in this field requires applicants to have good vision, hearing, and the ability to communicate orally. In addition, applicants must have the ability to comprehend and interpret written information. Applicants must have the dexterity to use small dental instruments to provide dental health care.

ADMISSION REQUIREMENTS

1. Academic Requirements
   a. High school graduate or satisfactory scores on the General Education Development Examination (given at most Adult Education Centers).
   b. Submit transcripts indicating a 2.0 Grade Point Average in all High School and College courses or consent of the Dental Assisting Department.
   c. Take college assessment test and achieve a satisfactory score in English or all deficiencies can be cleared while enrolled in the Dental Assisting Program.
2. Health
   a. Applicant must present evidence of physical fitness. Lab and immunizations records must be completed after acceptance into the program. The student is responsible for all costs incurred.

EXPENSES

Enrollment fee, project fees, uniforms and books will cost approximately $1200. Students are responsible for their own living accommodations, including uniform laundry and transportation to extended campuses. In the first semester of the program, immunization for Hepatitis B and other infectious diseases is required. Immunization expenses are the student's responsibility.

ATTENDANCE, SCHOLARSHIP, PROMOTION

Attendance: All students will be expected to observe the attendance requirements as set by the Dental Assisting Department at Cerritos College.

Scholarship and Promotion: In order to remain enrolled in the

Program, the student must maintain "C" or better in both theory and clinical courses.

ACCEPTANCE OF STUDENTS AT ADVANCED STANDING

Requests for acceptance into the Program at an advanced level will be evaluated on an individual basis after the applicant has met all College requirements.

PROCEDURE FOR APPLICATION

(To be completed in order as listed)

1. Complete application for admission to Cerritos College.
   a. Request two copies of your high school and/or college transcripts. Send one copy to the Health Occupations Division Office and one copy to the Admissions Office.
   b. Call for an application to the Dental Assisting Program, (562) 860-2451, extension 2550.
2. Return completed application to the Health Occupations Division, 11110 Alondra Blvd., Norwalk, California 90650.
3. As soon as requested materials are received, the student will be notified in writing regarding eligibility to enroll in the dental assisting program.

CERTIFICATE OF ACHIEVEMENT

FIRST SEMESTER		UNITS
DA 51	Applied Dental Science I	4
DA 52	Dental Radiography I	2
DA 53	Introduction to Chairside Assisting	3
DA 54	Introduction to Operatory Procedures	4
		13
SECOND SEMESTER		
DA 61	Applied Dental Science II	3
DA 62	Dental Radiography II	2
DA 63	Advanced Chairside Assisting	4
DA 64	Dental Office Management	2
DA 65	Clinical I Dental Schools	3
		14
SUMMER SESSION		
DA 75	Clinical II Cooperative Office Training	5
		5
TOTAL CERTIFICATE REQUIREMENTS		32

To earn a Certificate of Achievement, a student must (a) verify typing proficiency by taking a college typing or computer course with a "C" or better grade or receive a "B" or better in a high school typing or computer course, (b) achieve a satisfactory score in English on the College Placement Test or clear deficiencies, and (c) submit evidence of a current Basic Life Support CPR Certificate to the Dental Assisting counselor.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet all the requirements as listed for a Certificate of Achievement in Dental Assisting. For an A.A. Degree, a student must also take electives and General Education to achieve a minimum of 60 units. Recommended electives for students interested in Dental Hygiene Program: CHEM 100 MICRO 200 A&P 200, 201, HO 152

DENTAL HYGIENE

A dental hygienist is a preventive oral health professional licensed in dental hygiene who provides educational, clinical and therapeutic services supporting total health through the promotion of optimal oral health.

The Dental Hygiene Program is a two-year degree program and includes one six-week summer session and one six-week optional session. Upon completion of the program, graduating students will receive an Associate in Arts Degree in Dental Hygiene and will qualify to take the National and State Board Dental Hygiene Examinations. Successful passage of the examinations qualifies the graduate to practice dental hygiene in the State of California.

A dental hygienist may work in such practice settings as: private dental offices and dental clinics; federal, state and local health departments or associated institutions; hospitals and nursing homes; school districts or departments of education; educational programs for dental, dental hygiene and dental assisting students; private business/industry; correctional facilities; private and public centers for pediatric, geriatric and other individuals/groups with special needs; or health maintenance organizations.

Applicants desiring employment in this field are required to have good vision and the ability to communicate orally. In addition, they must have the capacity to comprehend, analyze, evaluate and record in clients' charts, and have the dexterity to use small dental instruments to provide dental hygiene care.

Applicants for examination of licensure in the state of California must be fingerprinted and report information related to illegal use of controlled substances, infectious or contagious diseases and any convictions or pleas of nolo contendere even if charges are dismissed. In addition, the application requires specific information related to convictions, misdemeanor or felony, associated with state or federal action. If there is any concern that may prevent licensure after graduation, direct inquiries to the State Board of Dental Examiners, Committee on Auxiliaries, 1428 Howe Avenue, Sacramento, CA 95825.

DENTAL HYGIENE PROGRAM REQUIREMENTS

I. Prerequisites

A. High School graduation or equivalent.

B. Introductory Chemistry 100, Anatomy and Physiology 200, 201, HO 152 and Microbiology 200 or equivalent with a grade of "C" or higher. The acceptance of college work previously completed is at the discretion of Cerritos College and the Dental Hygiene Department. Factors such as elapsed time since the course was completed and grades will be used in determining whether a previously completed course can be accepted towards fulfillment of the graduation requirement. Five years is usually considered maximum elapsed time.

C. A valid adult, child, and infant CPR card including two person CPR is required prior to enrolling in the Dental Hygiene classes and must be kept current. CPR courses approved by the state board are given through the American Heart Association and the American Red Cross.

II. Required Tests and Information

A. Cerritos College Assessment Tests Battery

1. Receive satisfactory scores on the Cerritos College Assessment Tests Battery or achieve clearance by taking the appropriate college courses. A 12th grade reading level is required for admission into the program.

B. Preliminary Transcript Evaluation

It is the student's responsibility to make an appointment

with the Counseling Department at Cerritos College to verify equivalent prerequisites and other courses required in the program. The Preliminary Transcript Evaluation must be filled out and signed by a Cerritos College counselor and then submitted to the Health Occupations Division Office along with your DH Application. To complete this procedure, the student must have a student copy of all transcripts from previously attended colleges.

C. Transcripts
   1. Send one (1) copy of high school transcript to the Admissions and Records Office.
   2. If college work has been completed at Cerritos College, request one (1) official copy of your transcript from the Admissions and Records Office to be sent to the Health Occupations Division Office. Also obtain one (1) copy of current work-in-progress.
   3. If applicant is transferring from another college, request three (3) copies of transcripts: one (1) official copy to be sent to the Health Occupations Division, one (1) official copy to the Admissions and Records Office, and one (1) student copy of your transcript to be used during the counseling session. Request two (2) copies of your current work-in-progress: one (1) to be sent to the Health Occupations Division Office, and one (1) to be used during the counseling session.

D. Application forms

   Along with the Dental Hygiene application, the applicant must complete a Cerritos College application. This form can be obtained from the Admissions and Records Office.

E. Work Experience

   For every related work experience listed, a Verification of Dental Employment form must be completed and mailed to the Health Occupations Division Office. Additional forms are available upon request in the Health Occupations Division Office. Letters of recommendation are not considered.

III. Selection Procedures

A. Academic evaluation
   1. All required documents, including Dental Hygiene application, preliminary transcript evaluation, verification of dental employment forms, copy of RDA or RDAEF License and registration, official college transcripts, and work-in-progress must be in our possession by April 1.
   2. Criteria for selection will be based on the following:
      a. GPA in pre-requisites
      b. Overall GPA for all college courses
      c. Additional biological sciences
      d. Related work experience
   3. Selection will be based upon academic evaluation and data obtained from the application forms. Candidates will be notified by mail during the month of May.

B. Health Forms

Present evidence of physical fitness is necessary to succeed in the program. Immunizations and TB testing are required for UCLA School of Dentistry and other extended facilities prior to patient care. Health and immunization forms will be issued to those applicants who are accepted in the program. Dental health professionals may be exposed to contagious diseases therefore strict compliance with CDC and OSHA standards are maintained. Policies on blood borne and infectious diseases are available upon request from the Dental Hygiene Department.

IV. Expenses
   A. See Cerritos College catalog for enrollment and out-of-state resident fees.
   B. The student may expect to spend approximately $4000 for books and instruments, $250 for uniforms, and another $2700 for miscellaneous fees and immunizations. Membership in the Associated Students of Cerritos College is recommended. Students will be encouraged to join the Student American Dental Hygienists' Association (SADHA) with membership fee of about $45 annually.

V. Scholarship, Attendance, Promotion, Graduation
   A. Attendance: all students are required to observe the attendance requirements of the college. During the program, some of the classes are held at UCLA Dental School and various county dental health facilities. Please Note: UCLA clinic class schedule may vary from the Cerritos College class schedule. Some classes may be scheduled in the evenings or on Saturdays.
   B. Scholarship and Promotion: Students are required to maintain a grade of "C" or better in each dental hygiene and dental education course in order to progress in the program. Grade requirements of the college are to be met for all other courses.
   C. Graduation: Petition for graduation will be permitted if the student meets both the college and the Dental Hygiene Program requirements for graduation. Upon completion of the program the graduate will be qualified to take the California State Board and the National Board Examinations in Dental Hygiene.

DENTAL HYGIENE—951

ASSOCIATE IN ARTS DEGREE

Prerequisites: CHEM 100, A&P 200, 201, MICR 200, HO 152, or equivalent with a grade of Credit or "C" or higher in each course. Valid adult, child, and infant CPR card including two person CPR.

MAJOR REQUIREMENTS

FIRST YEAR		UNITS
First Semester		
DH 110	Preventive Dentistry I	2
DH 111	Infection Control & Dental Office Emergencies	2
DH 112	Dental Hygiene Radiography	2
DH 114	Dental Hygiene Clinical Sciences I	2
DH 115C	Pre-Clinical Dental Hygiene I	2
DH 116	Head & Neck Anatomy	2
DH 119	Dental Embryology, Histology and Anatomy	2
Second Semester		
DH 120	Preventive Dentistry	2
DH 125	Dental Hygiene Clinical Sciences II	2
DH 125C	Clinical Dental Hygiene II	3
DH 126	General & Oral Pathology	2
DH 127	Pharmacology	2
DH 128	Management of Pain	2
DH 129	Applied Periodontics	2
SUMMER SESSION		
DH 150C	Clinical Dental Hygiene IIA	1
SECOND YEAR		
First Semester		
DH 232	Dental Materials Laboratory	1

DH 234	Dental Care for the Special Patient	2
DH 235	Dental Hygiene Clinical Sciences III	2
DH 235C	Clinical Dental Hygiene III	4
DH 238L	Community Dental Health Laboratory I	1
DH 239	Dental Health Education & Research I	2

Second Semester

DH 244	Ethical Issues in Dental Hygiene	2
DH 245	Dental Hygiene Clinical Sciences IV	2
DH 245C	Clinical Dental Hygiene IV	4
DH 248L	Community Dental Health Laboratory II	1
DH 249	Dental Health Education & Research II	2

SUMMER SESSION - OPTIONAL

DH 250C	Clinical Dental Hygiene V	1

The following requirements also must be completed to qualify for the A.A. Degree:

General Introductory Psychology (PSYC 101)
Freshman Composition (ENGL 100)
Speech (SPCH 100,130,132, or 120)
American Political Institutions (POL 101 or 201)
Introductory Sociology Principles (SOC 101)
History (HIST 101, 201, 202, 220 or 221)
*Humanities (three units)
*Fine Arts (three units)

*See Cerritos College General Education Requirements for the appropriate lists of courses acceptable for meeting the Humanities and Fine Arts Requirements.

CAREER OPPORTUNITIES: Upon completion of the Associate in Arts Degree Program and after passing the State Licensing Examinations a student may seek employment as a dental hygienist with individual dentists, clinics, school districts and various other institutions.

DENTAL HYGIENE — 690
TRANSFER PROGRAM

(The following curriculum does not lead to an Associate in Arts Degree. To earn an AA degree, see Dental Hygiene—951 in the catalog for the major requirements.)

LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

Common Course Requirements For Most Dental Hygiene Schools

		UNITS
BIOL 201	Principles of Biology	5
A & P 200	Human Anatomy	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
ENGL 100	Freshman Composition	3
ENGL 102	Freshman Composition and Literature	3
or ENGL 103	Critical & Argumentative Writing	(3)
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3

In addition, students must complete the USC general education requirements, (categories I, II, III, V and the writing and diversity requirements).

Other transfer institutions in California offering a Bachelors of Science Degree in Dental Hygiene are the University of California—San Francisco and Loma Linda University. Entrance requirements differ among schools, for details needed in preparation for these institutions students are advised to consult specific school catalogs.

CAREER OPPORTUNITIES: Upon completion of the Bachelor Degree Program and after passing the State Licensing Examinations a student may seek employment as a dental hygienist with individual dentists, clinics, school districts and various other institutions.

ECONOMICS —720
TRANSFER PROGRAM

LOWER DIVISION REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University-Long Beach

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
BUSA 101	Fundamentals of Accounting I	4
MATH 116	Calculus for Managerial, Biological & Soc. Sciences	4
or MATH 170	Analytic Geometry and Calculus I	(4)

The major also requires a minimum of two courses outside Economics (totaling at least 6 units). Students may take any of the following lower-division courses: ANTH 100; GEOG 105; HIST 241, HIST 242; MATH 115, MATH 150, MATH 190, MATH 220; POL 201; PSYC 101; SOC 220, SOC 101.

BUSINESS ECONOMICS

Same requirements as Economics except that the minimum of two courses outside Economics is not required.

California State University-Fullerton

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
BUSA 101	Fundamentals of Accounting I	4
and BUSA 133	Spreadsheet Accounting I	3
MATH 116	Calculus for Managerial, Biological & Soc. Sciences	4
or MATH 170	Analytic Geometry and Calculus I	(4)
MATH 190	Analytic Geometry and Calculus II	4
or BUSA 102	Fundamentals of Accounting II	(4)
and BUSA 133	Spreadsheet Accounting I	(3)
CIS 101	Introduction to Computer Information Systems	3

California State University-Dominguez Hills

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 112	Elementary Statistics	4

Additional courses required for concentrations.

GENERAL ECONOMICS CONCENTRATION

BUSA 101	Fundamentals of Accounting I	4
or MATH 170	Analytic Geometry and Calculus I	(4)

QUANTITATIVE ECONOMICS CONCENTRATION

CIS 101	Introduction to Computer Information Systems	3
MATH 116	Calculus for Managerial, Biological & Soc Sciences	4

California State University-Los Angeles

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 112	Elementary Statistics	4

Additional courses required for options.

Option 1: Applied Economics

BUSA 101	Fundamentals of Accounting I	4
and BUSA 102	Fundamentals of Accounting II	4
CIS 101	Introduction to Computer Information Systems	3
MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological & Soc Sciences	(4)

Option 2: Social and Behavioral Sciences

BUSA 101	Fundamentals of Accounting I	4
and BUSA 102	Fundamentals of Accounting II	4
MATH 116	Calculus for Managerial, Biological & Soc Sciences	4

California Polytechnic University, Pomona

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4
or BUSA 241	Managerial Accounting	(4)
ENGL 102	Freshman Composition and Literature	3
or ENGL 103	Critical and Argumentative Writing	(3)
ENGL 155	Technical Writing	3

Additional requirements for students selecting concentration of Track B:

MATH 170	Analytic Geometry and Calculus I	4
and MATH 190	Analytic Geometry and Calculus II	4

University of California, Los Angeles

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
ENGL 102	Freshman Composition and Literature	3
or ENGL 103	Critical and Argumentative Writing	(3)

BUSINESS ECONOMICS- B.A.

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
ENGL 102	Freshman Composition and Literature	3
or ENGL 103	Critical and Argumentative Writing	(3)
BUSA 101	Fundamentals of Accounting I	4
BUSA 102	Fundamentals of Accounting II	4

ECONOMICS / INTERNATIONAL AREA STUDIES-B.A.

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
FREN 203	Intermediate French, Advanced Level I	4
or GERM 202*	Intermediate German	(4)
or JAPN 202*	Intermediate Japanese	(4)
or SPAN 202*	Intermediate Spanish	(4)

*The 6th quarter of the same foreign language will have to be completed at UCLA.

University of California, Irvine

ECON 201	Principles of Macroeconomics	3
and ECON 202	Principles of Microeconomics	3
MATH 170	Analytic Geometry and Calculus I	4
and MATH 190	Analytic Geometry and Calculus II	4
CIS 280	Object-Oriented Programming in C++	3
and CIS 182	JAVA Programming	3.5

Three additional social science courses from an approved list of courses available from ASSIST is another requirement. Please see a counselor, if necessary, for help.

University of California, Riverside

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 170	Analytic Geometry and Calculus I	4
and MATH 190	Analytic Geometry and Calculus II	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete ECON 201 & 202 and MATH 80 (or equivalent) plus related coursework to be selected in consultation with a counselor to meet the 18 unit minimum and the AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Economics find employment in business, industry and government as price and market analysts, planning consultants and related occupations.

See Cerritos College Graduation Requirements.

EDUCATIONAL TECHNOLOGY PROGRAM

EDUCATIONAL TECHNOLOGY—310
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
You must complete 11 units in the following area:		
EDT 100	Integration of the Internet to the Curriculum	2
EDT 103	Spreadsheets for Educators	2
EDT 104	Word Processing for Educators	2
EDT 105	PowerPoint for Educators	2
EDT 111	Web Design Using FrontPage	1
EDT 125	Fundamentals of Teaching Online Courses	2
		11
Additional Requirements--You must complete 7 units in the following area:		
EDT 19	Fundamentals of Teleconferencing	1
EDT 43	Ed Tech Occupational Work Experience	3
EDT 50	Preparation for Online Learning	1
EDT 51	Email for Educators	1
EDT 52	Windows for Educators	1
EDT 53	Macintosh for Educators	1
EDT 57	Apple/Claris Works for Educators	1
EDT 64	HyperStudio Basics	1
EDT 65	Advanced HyperStudio	1
EDT 67	Inspiration Presentations	1
EDT 68	Using KidPix	1
EDT 81	Videos for School Use	2
EDT 101	Creating Curriculum Projects Using the Internet	1
EDT 106	Access for Educators	1
EDT 107	Desktop Publishing for Educators	1
EDT 112	Virtual Curriculum	3
EDT 115	Technology Integration in Education	1
EDT 119	Hardware and Software Considerations for Educators	1
EDT 120	Exploring Assistive Technology in Education	2
ART 196	Introduction to Designing Web Graphics	3
CIS 50	Computer Literacy	.5
CIS 121	Introduction to Internet	1.5
PHOT 112	Intermediate Digital Photography	3
TOTAL CERTIFICATE REQUIREMENT:		18

To be awarded a Certificate of Achievement by the college, a student must complete all major requirements and 9 additional units from the list above to total a minimum of 18 units.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the major requirements for the Certificate of Achievement and all A.A. degree general education requirements for a total of at least 60 units.

Although some of these courses are transferable, this certificate/A.A. Degree is nontransferable.

Please see counselor or the respective department for additional alternatives.

INSTRUCTIONAL MULTI-MEDIA—320
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS—UNITS

You must complete 11 units in the following area

EDT 19	Fundamentals of Teleconferencing	1
EDT 82	Interactive Multi-Media in Curriculum	1
EDT 100	Integration of the Internet Into Curriculum	2
EDT 105	PowerPoint for Educators	2
EDT 107	Desktop Publishing for Educators	1
EDT 111	Web Design for Educators	1
EDT 119	Hardware and Software Considerations for Educators	1
EDT 125	Fundamentals of Online Teaching	2
		11

Additional Requirements--You must complete 7 units in the following area:

EDT 43	EdTech Occupational Work Experience	3
EDT 50	Preparation for Online Learning	1
EDT 51	Email for Educators	1
EDT 52	Windows for Educators	1
EDT 53	Macintosh for Educators	1
EDT 57	Apple/Claris Works for Educators	1
EDT 64	HyperStudio Basics	1
EDT 65	Advanced HyperStudio	1
EDT 67	Inspiration Presentations	1
EDT 68	Using KidPix	1
EDT 81	Videos for School Use	2
EDT 101	Creating Curriculum Projects Using the Internet	1
EDT 106	Access for Educators	1
EDT 112	Virtual Curriculum	3
EDT 115	Technology Integration in Education	1
EDT 120	Exploring Assistive Technology in Education	2
ART 196	Introduction to Designing Web Graphics	3
CIS 50	Computer Literacy	.5
CIS 121	Introduction to Internet	1.5
PHOT 112	Intermediate Digital Photography	3

TOTAL CERTIFICATE REQUIREMENT: 18

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete all the major requirements for the Certificate of Achievement and all A.A. degree general education requirements for a total of at least 60 units.

Although some of these courses are transferable, this certificate/A.A. Degree is nontransferable.

Please see counselor or the respective department for additional alternatives.

TELECONFERENCING PRACTITIONER—330
CERTIFICATE OF ACHIEVEMENT

DIVISION / DEPARTMENT REQUIREMENTS—UNITS

You must complete 14 units in the following area

Take the following:

EDT 19	Fundamentals of Teleconferencing	1
EDT 20	Teleconferencing for Small Groups	2
EDT 21	Teleconference Telemeatic	1
EDT 22	Teleconference Event Review and Evaluation	1
EDT 23	Teleconference Production Studio	3
EDT 24	Teleconference Portfolio Workshop	3
EDT 52	Windows for Educators	1
EDT 53	Macintosh for Educators	1
EDT 119	Hardware and Software Considerations for Educators	1
		14

Additional Requirements--You must complete 4 units in the following area.

EDT 43	EdTech Occupational Work Experience	3
EDT 50	Preparation for Online Learning	1
EDT 51	Email for Educators	1
EDT 57	Apple/Claris Works for Educators	1
EDT 64	Hyperstudio Basics	1
EDT 65	Advanced Hyperstudio	1
EDT 67	Inspiration Presentations	1
EDT 68	Using Kidpix	1
EDT 81	Videos for School Use	2
EDT 101	Creating Curriculum Projects Using the Internet	1
EDT 106	Access for Educators	1
EDT 107	Desktop Publishing for Educators	1
EDT 112	Virtual Curriculum	3
EDT 115	Technology Integration in Education	1
EDT 120	Exploring Assistive Technology in Education	2
ART 196	Introduction to Designing Web Graphics	3
CIS 50	Basic Computer Literacy	.5
PHOT 112	Intermediate Digital Photography	3

TOTAL CERTIFICATE REQUIREMENT: 18

To be awarded a Certificate of Achievement by the college, a student must complete all the major requirements and 4 additional requirement section to total a minimum of 18 units.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the requirements for the Certificate of Achievement and all A.A. degree general education requirements for a total of at least 60 units.

Please see counselor or the respective department for additional alternatives.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

REQUIRED COURSES		UNITS
ELECTRONICS TECHNOLOGY #830 BASIC CORE		
EL 50	Electronic Tests and Measurements	1.5
EL 60	Computer Aided Circuit Analysis	1.5
EL 110	Principles of DC Electronics	4
EL 110L	DC Electronics Laboratory	1
EL 120	Principles of AC Electronics	4
EL 120L	AC Electronics Laboratory	1
EL 134	Digital Circuits and Computer	3

EL 134L	Digital Circuits and Computer Logic Lab	1
EL 200	Semiconductor Electronics	3
EL 200L	Semiconductor Electronics	1
TM 50	Technical Mathematics	3
or MATH 140	Trigonometry	3

ADDITIONAL REQUIRED COURSES

EL 210	Electronics Systems Analysis	3
EL 210L	Electronics Systems Laboratory	1
EL 244	Introduction to Microcomputers	4
TOTAL UNITS		32

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the Electronic Technology Option #830 Basic Core requirements (24 units), (2) the additional required courses (8 units), (3) The Associate in Arts Degree general education requirements, and (4) electives as needed to fulfill the graduation requirements.

RECOMMENDED ELECTIVES: ENGL 155, CIS 56, CIS 70A, CIS 101, CIS 102, CIS 170.

CAREER OPPORTUNITIES: Opportunities for electronic technicians include the aerospace, automotive, transportation, computer, instrumentation, telecommunication, television broadcasting, entertainment, motion picture, process control, manufacturing and health care industries and government agencies.

Related Transfer Program: Industrial Technology – Electronics – 836

See Cerritos College Graduation Requirements.

ELECTRONICS TECHNOLOGY—830
CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
ELECTRONICS PROGRAM BASIC CORE COURSES		
EL 50	Electronic Tests and Measurements	1.5
EL 60	Computer Aided Circuit Analysis	1.5
EL 110	Principles of DC Electronics	4
EL 110L	DC Electronics Laboratory	1
EL 120	Principles of AC Electronics	4
EL 120L	AC Electronics Laboratory	1
EL 134	Digital Circuits and Computer Logic	3
EL 134L	Digital Circuits and Computer Logic Lab	1
EL 200	Semiconductor Electronics	3
EL 200L	Semiconductor Electronics Lab	1
TM 50	Technical Mathematics	3
or MATH 140	Trigonometry	3
TOTAL UNITS		24

Certificates of Achievement in Electronics are available under four options. All options require completion of the Basic Electronics Core Courses. With Department approval, selection of the option courses may be tailored to student's occupational objectives. Each option may be applied to the Associate in Arts Degree.

INDUSTRIAL ELECTRONICS TECHNOLOGY OPTION–816

REQUIRED COURSES		UNITS
Electronics Technology #830 Basic Core Courses		24
Additional Required Courses		
EL 56	Programmable Logic Controllers	3.5
EL 66	Fundamentals of Electricity	3
EL 76	Industrial Electronic Control	3.5
EL 86	Electric Motor Control	3
TOTAL UNITS		37

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the Industrial Electronics Technology Option #816 (37 units), (2) the Associate in Arts Degree general education requirements, and (3) electives as needed to fulfill the graduation requirements.

RECOMMENDED ELECTIVES: ENGL 155, CIS 56, CIS 70A, CIS 101, CIS 102, CIS 170.

Related Transfer Program: Industrial Technology – Electronics – 836

See Cerritos College Graduation Requirements.

COMPUTER SERVICING TECHNOLOGY OPTION–827

REQUIRED COURSES		UNITS
Electronics Technology #830 Basic Core Courses		24
Additional Required Courses		
EL 54	Microcomputer Repair Fundamentals	3
EL 244	Introduction to Microcomputers	4
And six (6) units selected from the following courses:		
EL 53A	Introduction to Microprocessors	3
EL 53B	Advanced Microprocessors	2
CIS 56	Microcomputer Disk Operating Systems	3
CIS 70A	Networking Fundamentals	2.5
TOTAL UNITS		37(38.5)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the Computer Servicing Technology Option #827 (37 units), (2) the Associate in Arts Degree general education requirements, and (3) electives as needed to fulfill the graduation requirements.

RECOMMENDED ELECTIVES: ENGL 155, CIS 56, CIS 70A, CIS 101, CIS 102, CIS 170.

Related Transfer Program: Industrial Technology – Electronics – 836

See Cerritos College Graduation Requirements.

TELECOMMUNICATIONS TECHNOLOGY OPTION–826

REQUIRED COURSES		UNITS
Electronics Technology #830 Basic Core Courses		24
Additional Required Courses		
EL 62	Optoelectronics	3
EL 64A	Introduction to Telecommunications Electronics	3
EL 64B	Advanced Telecommunications Electronics	3
EL 94	Digital Signal Processing	3.5
EL 212	Electronic Communication	3
TOTAL UNITS		39.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the Telecommunications Technology Option #826 (39.5 units), (2) the Associate in Arts Degree

general education requirements, and (3) electives as needed to fulfill the graduation requirements.

RECOMMENDED ELECTIVES: ENGL 155, CIS 56, CIS 70A, CIS 101, CIS 102, CIS 170.

Related Transfer Program: Industrial Technology – Electronics – 836

See Cerritos College Graduation Requirements.

ENGINEERING—615
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

FOR MOST COLLEGES OF ENGINEERING (CORE)		UNITS
CHEM 111	General Chemistry	5
ENGR 112	Engineering Graphics	3
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytic Geometry and Calculus III	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

Schools of engineering have similar basic science requirements but differ widely in the preparation for the various engineering options available. The following science, engineering, technical support, and math courses meet specific requirements for transfer as needed for the several options usually available at the four-year college level.

Contact a Cerritos engineering counselor for the specific requirements of the school and option you have selected in order to optimize preparation for transfer.

BIOL 120	Introduction to Biological Science	4
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 112	General Chemistry	5
CHEM 205	Quantitative Analysis Chemistry	4
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
CIS 177	Programming in Pascal	4
CIS 178	Programming in Fortran	3
CIS 180	Programming in C/C++	3
CIS 230	Assembly Programming for Microcomputers	4
CIS 280	Object-Oriented Programming in C++	3
CIS 292	Data Structures	4
EL 134	Digital Circuits and Computer Logic	3
EL 134L	Digital Circuits and Computer Logic Laboratory	1
ENGR 215	Engineering Electric Circuits	3
ENGR 123	Descriptive Geometry	3
ENGR 235	Statics	3
ENGT 138	Fundamentals of Computer Aided Drafting	4
MATH 240	Calculus and Differential Equations	4
MFGT 100	Manufacturing Processes	3
MICR 200	Principles and Applications of Microbiology	5
PHYS 203	Engineering Physics	4

California State University – Long Beach

(CSULB) Offers nine BS degrees: aerospace, chemical, civil, computer, computer science, electrical, manufacturing, mechanical, and general engineer with options in: industrial management, ocean materials, biomedical and clinical, audio, and theme park.

California State University – Fullerton

(CSUF) Has a common core of courses for the first two and one-half years. During the last two years the student selects engineering courses appropriate to one of the three options available: Electrical, Civil, and Mechanical.

California State University – Los Angeles

(CSULA) Offer programs leading to the Bachelor of Science degree in Engineering with option in Civil, Electrical, and Mechanical Engineering.

California State University – Pomona

(CSUP) Engineering school departments: Aerospace, Chemical, Materials, Civil, Electrical and Computer, Industrial, Manufacturing, and Mechanical. This institution combines technical applied courses with the sciences throughout the entire program. Due to the fact that many of technical courses required cannot be duplicated at the community college level, it is wise to plan on attending Cal Poly during the summer quarter following graduation from Cerritos College.

University of California – Los Angeles

(UCLA) Offers Bachelor's Degree in the following: Aerospace, Chemical, Civil, Computer Science, Computer Science and Engineering, Electrical, Materials, and Mechanical.

University of California – Irvine

(UCI) Offers Bachelor's Degree in the following: Aerospace, Chemical, Civil, and Computer Engineering, Electrical, Environmental, Material Science and Mechanical.

University of California – Riverside

(UCR) Offers Bachelor's Degree in the following: Chemical, Computer, Electrical, Environmental, and Mechanical.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the Engineering core, (2) CIS 177 or 178 or 280, (3) the Associate in Arts General Education Requirements.

CAREER OPPORTUNITIES: Career opportunities in engineering vary widely depending upon the area of specialization. The Cerritos Career Center provides current and comprehensive career information concerning each engineering discipline. Because engineering is a high unit professional major, the schools of engineering may require special general education classes. Contact a Cerritos engineering counselor for specific information.

ENGINEERING DESIGN TECHNOLOGY PROGRAMS

COMPETENCY ACHIEVEMENT REQUIREMENTS / ENGINEERING DESIGN TECHNOLOGY

MACHINE DESIGN AND MANUFACTURING

ENGT 117	Geometrical Dimensioning and Tolerancing	2
ENGT 153	Machine Drawing & Design with AutoCAD	3
ENGT 237	Graphical Statics & Strength of Materials	3
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
ENGT 258	Design & Production Technology with AutoCad	4
		16

3-D PARAMETRIC MODELING AND PRESENTATIONS		UNITS
ENGT 153	Machine Drawing & Design with AutoCAD	3
ENGT 255	AutoCAD Rendering & Solid Modeling Applications	4
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
ENGT 257	Advanced Application of AutoCAD Mechanical Desktop	4
		15

AUTOCAD APPLICATIONS WITH MAP		UNITS
ENGT 131	Fundamentals of Drafting Including AutoCAD	3
ENGT 138	Fundamentals of Computer Aided Drafting	4
ENGT 151	Advanced Applications of Computer Aided Drafting & Design Using AutoCAD	4
ENGT 160	AutoCAD MAP	4
		15

AUTOCAD / INVENTOR APPLICATIONS WITH SHEET METAL LAYOUT		UNITS
ENGT 117	Geometrical Dimensioning and Tolerancing	2
ENGT 133	Sheet Metal Layout & Applications	2
ENGT 138	Fundamentals of Computer Aided Drafting	4
ENGT 153	Machine Drawing & Design with AutoCAD	3
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
		15

ENGINEERING DESIGN AND PRODUCTION TECHNOLOGY		UNITS
ENGT 133	Sheet Metal Layout & Applications	2
ENGT 258	Design & Production Technology with AutoCad	4
MFGT 100	Manufacturing Processes	3
MET 100A	Metallurgy 1	3
MTT 100	Modern Manufacturing Concepts and Techniques	2.5
		14.5

ENGINEERING DESIGN TECHNOLOGY—823
CERTIFICATE OF ACHIEVEMENT

Recommended High School Preparation:
One year Algebra, one year of Mechanical Drafting

REQUIRED COURSES		UNITS
ENGT 117	Geometrical Dimensioning and Tolerancing	2
ENGT 133	Sheet Metal Layout & Applications	2
ENGT 138	Fundamentals of Computer Aided Drafting	4
ENGT 151	Advanced Applications of Computer Aided Drafting & Design	4
ENGT 153	Machine Drawing & Design with AutoCAD	3
ENGT 160	AutoCAD MAP	4
ENGT 237	Graphical Statics & Strength of Materials	3
ENGT 255	AutoCAD Rendering & Solid Modeling Applications	4
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
ENGT 257	Advanced Application of AutoCAD Mechanical Desktop	4
TM 50	Technical Mathematics	3
or MATH 60	Elementary Algebra	(4)
TOTAL CERTIFICATE REQUIREMENT:		37 (38)

ENGINEERING DESIGN AND PRODUCTION TECHNOLOGY OPTION—819

Above courses required plus

ENGT 258	Design & Production Technology	4
MFGT 100	Manufacturing Processes	3
MET 100A	Metallurgy 1	3
MTT 100	Modern Manufacturing Concepts and Techniques	2.5
TOTAL CERTIFICATE REQUIREMENT:		49.5 (50.5)

ENGINEERING DESIGN TECHNOLOGY—820

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the above requirements as listed for the Certificate of Achievement in Engineering Design and Production. A student must also complete electives, and A.A. Degree general education requirements to achieve a minimum of 60 units.

RECOMMENDED ELECTIVES: MFGT 51, BA 107, BA 117

CAREER OPPORTUNITIES: Designers, master layout person, systems designers, junior design and tool designer, and CAD/CAM designers.

RELATED TRANSFER PROGRAM: Industrial (Engineering) Technology--Manufacturing Option.

See Cerritos College Graduation Requirements.

ENGLISH—530
TRANSFER PROGRAMS

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND CALIFORNIA STATE UNIVERSITY

		UNITS
ENGL 100	Freshman Composition	3
ENGL 102	Freshman Composition	3
ENGL 103	Critical and Argumentative Writing	3
ENGL 246A	Survey of English Literature	3
ENGL 246B	Survey of English Literature	3

Foreign Language: Students intending to transfer to the University of California should discuss foreign language requirement with counselor.

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University-Dominguez Hills

Select one course from the following:

ENGL 232	Reading in Poetry	3
ENGL 233	Readings in the Novel	3
ENGL 234	Readings in Short Fiction	3
ENGL 235	Readings in the Drama	3

California State University-Long Beach

ENGL 246A	Survey of English Literature	3
ENGL 246B	Survey of English Literature	3

(ENGL 240, Creative Writing is required of students planning to choose the creative writing option at CSULB.)

California State University-Los Angeles

ENGL 248A	Masterpieces of World Literature	3
ENGL 246A	Survey of English Literature	3
or ENGL 246B	Survey of English Literature	(3)

University of California-Irvine

Complete 202 of Intermediate College Level Foreign Language. Select one from the following: FRENCH, GERMAN, JAPANESE or SPANISH

University of California-Los Angeles

Complete 202 of Intermediate College Level Foreign Language. Select from the following: FRENCH, GERMAN, JAPANESE or SPANISH or Course 102 of one Foreign Language, AND select two (2) courses from the following:

ENGL 221A	Literature in Bible-Hebrew Scriptures	3
ENGL 221B	Literature in Bible-Christian Scripture	3
ENGL 225	Mexican Literature in Translation	3

University of California-Riverside

ENGL 230A	Introduction to American Literature	3
ENGL 230B	Introduction to American Literature	3

Recommended one course from the following:

ENGL 248A	Masterpieces of World Literature	3
ENGL 248B	Masterpieces of World Literature	3

Students intending to transfer should consult with a counselor for academic planning to specify university.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) ENGL 100 and ENGL 102or ENGL 103; (2) 12 additional units in English selected from ENGL 221A, 221B, 222, 225, 226, 227, 228, 230A, 230B, 232, 233, 234, 235, 246A, 246B, 248A, 248B, and (3) the Associate in Arts Degree general education requirements.

CAREER OPPORUTNITES: English graduates are employed in all sectors of the economy requiring analytical, and communication skills; opportunities in the broad fields of government, transportation, business management, publications, communications, and the media; positions in education, public relations, advertising, libraries, museums, excellent preparation for study of law, theology, library, science.

FORESTRY—670
TRANSFER PROGRAM

		UNITS
California State University – Humboldt		
BIOL 200-201	Principles of Biology	5-5
CHEM 110	Elementary Chemistry	4
MATH 116	Calculus for Managerial, Biological, and Social Sciences	4
or MATH 170	Analytic Geometry and Calculus I	(4)
University of California – Berkeley		
BIOL 200-201	Principles of Biology	5-5
CHEM 111-112	General Chemistry	5-5
CHEM 211-212	Organic Chemistry	5-5
ECON 201-202	Principles	3-3
ENGL 102	Freshman Composition	3
MATH 112	Elementary Statistics	4
MATH 170-190	Analytic Geometry and Calculus I and II	4-4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete one of the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: After transfer to a four year college or university and completion of the Bachelor's Degree Program, graduates qualify for graduate study and for employment with timber companies, utility companies, U.S. Forest Service, National Park Service, Bureau of Land Management, Environment Protection Agency, and the California Division of Forestry.

See Cerritos College Graduation Requirements.
See State University General Education List.

FRENCH—551
TRANSFER PROGRAM

California State University – Dominguez

FREN 101	Elementary French	5
FREN 102	Elementary French	5
FREN 201	Intermediate French	5
or FREN 202	Intermediate French	(4)

California State University – Long Beach

FREN 101	Elementary French	5
FREN 102	Elementary French	5
FREN 281	Beginning Conversational French	3

Two years of a second foreign language at the college level or equivalent is also required.

Departmental Recommendation: Students specializing in French should include the following courses in their program of study: HIST 241 and HIST 242.

California State University – Fullerton

FREN 101	Elementary French	5
FREN 102	Elementary French	5
FREN 201	Intermediate French	5
FREN 202	Intermediate French	4
FREN 203	Intermediate French, Advanced Level I	4

California State University – Los Angeles

FREN 101	Elementary French	5
and FREN 102	Elementary French	5
FREN 201	Intermediate French	5
and FREN 202	Intermediate French	4
FREN 281	Beginning Conversational French	3

University of California – Irvine

FREN 101	Elementary French	5
and FREN 102	Elementary French	5
FREN 201	Intermediate French	5
and FREN 202	Intermediate French	4

At least one course is required from four different areas (writing, literature, history, and philosophy). An approved list of courses is available from ASSIST. Please consult a counselor, if necessary, for these additional classes.

University of California – Riverside

FREN 101	Elementary French	5
and FREN 102	Elementary French	5
FREN 201	Intermediate French	5
and FREN 202	Intermediate French	4

Note: Students may either take the courses listed above or demonstrate equivalent proficiency (as measured by a placement exam at UCR).

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

(1) Meet the above requirements as listed for a state university, (2) complete the A.A. Degree general education requirements, and (3) take electives to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment with the government, international firms, airline hostess, travel agent, librarian, linguistic reporter, teacher interpreter, translator.

See Cerritos College Graduation Requirements.
See State University General Education List.

GEOGRAPHY—730
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION		UNITS
GEOG 101	Physical Geography	3
GEOG 102	Cultural Geography	3

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Fullerton

GEOG 105	World Regional Geography	3

California State University – Los Angeles

ENGL 103	Critical and Argumentative Writing	3
MATH 112	Elementary Statistics	4

University of California – Los Angeles

MATH 112	Elementary Statistics	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Employment in business, regional, urban, and environmental planning, government, Foreign Service, teaching.

See Cerritos College Graduation Requirements.
See State University General Education List.

GEOLOGY—630
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA		UNITS
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
GEOL 101	The Earth Environment	4
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4

ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills
(Earth Science Option)

GEOL 201	Earth History	4
PHYS 101	General Physics	4
and PHYS 102	General Physics	4
or BIOL 200	Principles of Biology	(5)
and BIOL 201	Principles of Biology	5
MATH 170	Analytic Geometry and Calculus I	4
and MATH 190	Analytic Geometry and Calculus II	4
or MATH 116	Calculus for Managerial, Biological and Social Sciences	(4)
and MATH 112	Elementary Statistics	4

California State University – Fullerton
(Geological Science)

BIOL 120	Introduction to Biological Science	4
or BIOL 200	Principles of Biology	(5)
and BIOL 201	Principles of Biology	5
CIS 102	Introduction to Microcomputer Hardware and Software	3
or CIS 177	Programming in Pascal	(3)
or CIS 178	Programming in Fortran	(3)
GEOL 201	Earth History	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
or PHYS 203	Engineering Physics	(4)
or PHYS 101	General Physics	(4)
and PHYS 102	General Physics	4

And one additional course with consent of advisor
See counselor for list.

California State University – Long Beach

BIOL 120	Introduction to Biological Science	4
GEOL 201	Earth History	4
MATH 220	Analytic Geometry and Calculus III	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

*Consult Counselor for additional required courses for other emphases.

California State University – Los Angeles

ENGL 103	Critical and Argumentative Writing	3
GEOL 201	Earth History	4
PHYS 101	General Physics	4
PHYS 102	General Physics	4

California State University Polytechnic – Pomona

ASTR 101	Elementary Astronomy	3
BIOL 105	Man and Environment	3
GEOL 201	Earth History	4
MATH 112	Elementary Statistics	4
ORNH 110	Soils	4
PHYS 101	General Physics	4
PHYS 102	General Physics	4

University of California – Los Angeles

BIOL 120	Introduction to Biological Science	4
CIS 178	Programming in Fortran	3
or CIS 180	Programming in C/C++	(3)
ESCI 110	Introduction to Earth Science	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

University of California – Riverside

BIOL 201	Principles of Biology	5
GEOL 201	Earth History	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

See Counselor for specific details.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) a combination of geology and other courses, in consultation with a counselor, equaling 18 units and (2) the Associate in Arts degree general education requirements.

CAREER OPPORTUNITIES: After transfer to a four-year college or university and completion of the Bachelor's Degree program, graduates qualify for graduate study and for professional careers in government or industry and teaching.

See Cerritos College Graduation Requirements.
See State University General Education List.

GERMAN—552
TRANSFER PROGRAM

		UNITS
California State University – Fullerton		
GERM 101	Elementary German	5
GERM 102	Elementary German	5
GERM 201	Intermediate German	4
GERM 202	Intermediate German	4
California State University – Long Beach		
GERM 101	Elementary German	5
GERM 102	Elementary German	5
GERM 201	Intermediate German	4
GERM 202	Intermediate German	4

Students who have completed sufficient high-school German may take upper-division courses at CSULB as soon as lower-division requirements have been met.

University of California – Irvine		
GERM 101	Elementary German	5
and GERM 102	Elementary German	5
GERM 201	Intermediate German	4
and GERM 202	Intermediate German	4
ENGL 248A	Masterpieces of World Literature	3
ENGL 248B	Masterpieces of World Literature	3

At least one course from each of four areas (writing, literature, history, and philosophy) is also required. An approved list of courses is available from ASSIST. Please consult a counselor, if necessary, for these additional classes.

University of California – Riverside		
GERM 101	Elementary German	5
and GERM 102	Elementary German	5
GERM 201	Intermediate German	4
and GERM 202	Intermediate German	4

Note: Students may either take the courses listed above or demonstrate equivalent proficiency (as measured by a placement exam at UCR).

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

(1) Meet the above requirements as listed for a state university, (2) complete the A.A. Degree general education requirements, and (3) take electives to achieve the minimum of 60 units.

CAREER OPPORTUNITIES: Employment with U.S. or international agencies or with international business firms, airline hostess, travel agency personnel, librarian, linguistic reporter, teacher, interpreter, translator.

See Cerritos College Graduation Requirements.
See State University General Education List.

HISTORY—740
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
HIST 201	Political & Social History of the U.S.	3
HIST 202	Political & Social History of the U.S.	3

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills		
HIST 245	World Civilization from Antiquity to 1500	3
HIST 246	World Civilization from 1500 to Present	3

HIST 201 and 202 are not required.

California State University – Fullerton		
HIST 201	Political and Social History of the United States	3
and HIST 202	Political and Social History of the United States	3
or HIST 201	Political and Social History of the United States	(3)
and HIST 210	History of the United States in the Post World War II Era	(3)
HIST 245	World Civilization from Antiquity to 1500	3
California State University – Los Angeles		
HIST 241	Western Civilization	3
HIST 242	Western Civilization	3
California State University – Long Beach		
HIST 241	Western Civilization	3
HIST 242	Western Civilization	3
HIST 220	History of the Americas	3
HIST 221	History of the Americas	3
University of California – Irvine		
HIST 201	Political and Social History of the United States	3
and HIST 202	Political and Social History of the United States	3
or HIST 241	Western Civilization	(3)
and HIST 242	Western Civilization	(3)
or HIST 260	Survey of the History of Asia	(3)
and HIST 265	Selected Problems in Contemporary Asian History	3
PHIL100	Introduction to Philosophy	3

Up to three additional UC transferable history courses.
Two years of a language other than English
One literature course selected from ENGL 230A, 230B, 246A, 246B, 248A, or 248B.

University of California – Los Angeles		
HIST 241	Western Civilization	3
or HIST 242	Western Civilization	(3)
or HIST 245	World Civilization from Antiquity to 1500	(3)
or HIST 246	World Civilization from 1500 to Present	(3)

Two (2) courses from

HIST 101	American History and Constitution	3
HIST 110	African-American History	3
HIST 120	History of California	3
HIST 201	Political and Social History of the United States	3

HIST 202	Political and Social History of the United States	3
HIST 220	History of the Americas	3
HIST 221	History of the Americas	3
HIST 230	History of Mexico	3
HIST 235	History of Latin America	3
HIST 250	History of England, Great Britain & the Commonwealth	3
HIST 255	History of Russia and the Soviet Union	3
HIST 260	Survey of the History of Asia	3
HIST 265	Selected Problems in Contemporary Asian History	3

University of California – Riverside

HIST 245	World Civilization from Antiquity to 1500	3
or HIST 242	Western Civilization	(3)

One additional history course. HIST 201 or HIST 202 is recommended for students who choose the U.S. as their area of concentration.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Teaching, law, government, and other public services.

See Cerritos College Graduation Requirements.
See State University General Education List.

HOME ECONOMICS—960
TRANSFER PROGRAM

CSU, Long Beach offers the Bachelor of Arts degree in Family Consumer Sciences (Formerly Home Economics).

Options:
- Child Development and Family Studies
- Communication
- Consumer Affairs
- Fashion Merchandising
- Textiles and Clothing

Each option requires specific courses. Students are urged to see a Cerritos College counselor for accurate and complete lower division preparation.

LOWER DIVISION MAJOR REQUIRED FOR SPECIFIC TRANSFER INSTITUTION

California State University– Long Beach		**UNITS**
Child Development & Family Studies Option		
A&P 120	Introduction to Human Anatomy and Physiology	4
or A&P 130	Human Anatomy and Physiology	(5)
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3
or ANTH 100	Cultural Anthropology	(3)

These must be completed with a "C" or better.

Fashion Merchandise Option		
BUSA 101	Fundamentals of Accounting I	4
CHEM 100	Introductory Chemistry	4
or CHEM 111	General Chemistry	(5)
ECON 201	Principles	3
ECON 202	Principles	3
HIST 240	Western Civilization	3
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3
or ANTH 100	Cultural Anthropology	(3)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units to include (1) the above course requirements, (2) the AA Degree general education requirements, and (3) electives as needed.

See Cerritos College Graduation Requirements.
See State University General Education List.

INDUSTRIAL ARTS EDUCATION—890
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

California State University- Los Angeles		**UNITS**
AUTO 100	Automotive Maintenance and Operation	4
EL 110	Principles of DC Electronics	3
EL 110L	DC Electronics Laboratory	1
ENGT 131	Fundamentals of Drafting Including AutoCAD	3
PHOT 100	Introductory Photography	3
WMT 101	Introduction to Woodworking	2

State Universities that offer majors in Industrial Arts, Technology, and Vocational Education are California State University - Long Beach, Los Angeles, Chico, Fresno, Humboldt, San Diego, San Francisco, San Jose, and San Luis Obispo.

Students wishing to teach in Vocational Education at the Community College, Adult School, ROP, and ROC should consult a counselor for further information.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include, (1) common lower division preparation, (2) 3 units of Technology/CSU transferable electives, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: After transfer, completion of the Bachelor's Degree Program and receiving a Teaching Credential, graduates are prepared for teaching positions in Industrial Education through High School.

See Cerritos College Graduation Requirements.
See State University General Education List.

INDUSTRIAL TECHNOLOGY—CONSTRUCTION OPTION—837
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY (ENGINEERING TECHNOLOGY)

		UNITS
ARCH 111	Architectural Drafting	3
CHEM 111	General Chemistry	5
ENGT 131	Fundamentals of Drafting Including AutoCAD	3
ECON 201	Principles of Macroeconomics	3
MATH 170	Analytic Geometry and Calculus I	4
PHIL 106	Introduction to Logic	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Long Beach

BUSA 101	Fundamentals of Accounting I	4
or BUSA 240	Cost Accounting	(4)
CIS 101	Introduction to Computer and Information Systems	3
ENGT 237	Graphical Statistics and Strength of Materials	3
or ENGR 235	Statics	(3)
MATH 112	Elementary Statistics	4

California State Polytechnic University – Pomona

ARCH 121	Materials and Methods of Building Construction	3
ENGR 235	Statics	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) Common Lower Division Preparation, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: Completion of the Bachelor's Degree Program qualifies a person to serve in expediting, coordination, inspection, specification and proposal writing, facilities planning and development, project management and associated work in the construction or manufacturing industries. Some graduates elect to obtain the General Contractors License and go directly into the construction business.

See Cerritos College Graduation Requirements.
See State University General Education List.

INDUSTRIAL TECHNOLOGY-ELECTRONICS OPTION—836
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY (ENGINEERING TECHNOLOGY)

		UNITS
CHEM 111	General Chemistry	5
ECON 201	Macroeconomics	3
EL 110	Principles of DC Electronics	4
EL 110L	DC Electronics Laboratory	1
EL 120	Principles of AC Electronics	4
EL 120L	AC Electronics Laboratory	1
EL 134	Digital Circuits and Computer Logic	3
EL 134L	Digital Circuits and Computer Logic Laboratory	1
ENGT 131	Fundamentals of Drafting Including AutoCAD	3
MATH 170	Analytic Geometry and Calculus I	4
PHIL 106	Introduction to Logic	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Long Beach

CIS 101	Introduction to Computer Information Systems	3
CIS 177	Programming in Pascal	4
or CIS 280	Object-Orientated Programming in C++	(3)
EL 200	Semi-Conductor Circuits	3
EL 200L	Semi-Conductor Circuits Laboratory	1
EL 210	Electronic Systems Analysis	3
EL 210L	Systems Analysis Laboratory	1
ENGT 237	Graphical Statics and Strength of Materials	3
or ENGR 235	Statics	(3)
MATH 112	Elementary Statistics	4

California State Polytechnic University – Pomona

CIS 230	Assembly Programming for Microcomputers	4
ENGR 235	Statics	3

Other California State Universities that offer the Bachelor's Degree: Chico, Fresno, San Jose, San Luis Obispo, and Sacramento. Consult catalogs of specific institutions for requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include, (1) Common Lower Division Preparation, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: After transfer and completion of the Bachelor's Degree program, a student is qualified to work in careers such as designer, project manager, field engineer, service engineer, manufacturing and test supervisor, sales engineer and technical representative. While there are many overlapping areas, the industrial technologist or engineering technologist is employed for central purpose of supporting the practical side of engineering achievement with emphasis upon the end product (Production Management) rather than the conceptual process.

See Cerritos College Graduation Requirements.
See State University General Education List.

INDUSTRIAL TECHNOLOGY—MANUFACTURING OPTION—835
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY (ENGINEERING TECHNOLOGY)

		UNITS
CHEM 111	General Chemistry	5
ECON 201	Macroeconomics	3
ENGT 131	Fundamentals of Drafting Including AutoCAD	3
MATH 170	Analytic Geometry and Calculus I	4
PHIL 106	Introduction Logic	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4

ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Long Beach

CIS 101	Introduction to Computer Information Systems	3
ENGT 138	Fundamentals of Computer Aided Drafting with AutoCAD	4
ENGT 153	Machine Drawing and Design with AutoCAD	3
ENGT 237	Graphical Statistics and Strength of Materials	3
or ENGR 235	Statics	(3)
ENGT 258	Design and Production Technology	4

MTT 100	Machine Tool Introduction	2.5
MATH 112	Elementary Statistics	4

California State Polytechnic University – Pomona (MANUFACTURING / MECHANICAL)

ENGR 235	Statics	3
WELD 100	Welding Fundamentals	2

Other California State University and Colleges that offer the Bachelor's Degree: Chico, Fresno, San Jose, San Luis Obispo, and Sacramento. Consult catalogs of specific institutions for requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) Common Lower Division Preparation, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: After transfer and completion of the Bachelor's Degree program, a student is qualified to work in careers such as production engineer, manufacturing engineer, tool engineer, program manager, cost estimator, and sales engineer. While there are many overlapping areas, the Industrial Technologist or Engineering Technologist is employed for the central purpose of supporting the practical side of engineering achievement with emphasis on the end product (production manager) rather than the conceptual process.

See Cerritos College Graduation Requirements.
See State University Colleges General Education List.

INDUSTRIAL TECHNOLOGY—QUALITY ASSURANCE—838

TRANSFER PROGRAM

(The following curriculum goes not lead to an Associate in Arts Degree)

The following program of study has been designed to prepare students for transfer to California State University, Long Beach – Engineering Technology.

		UNITS
BA 111	Business Law	3
CIS 101	Introduction to Computer Information Systems	3
CHEM 111	General Chemistry	5
ECON 201	Principles of Macroeconomics	3
ENGT 131	Fundamentals of Drafting Including AutoCAD	3
ENGT 237	Graphical Statistics and Strength of Materials	3
or ENGR 235	Statics	(3)
MATH 112	Elementary Statistics	4
MATH 170	Analytic Geometry and Calculus I	4
PHIL 106	Introduction to Logic	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4

Quality Control Courses

MET 100A	Metallurgy and Non-Metallic Materials	3
MET 120	Non-Destructive Testing	3
MTT 100	Machine Tool Introduction	2.5

CAREER OPPORTUNITIES: After transfer and completion of the Bachelor's Degree Program; serve in reliability, quality control; quality assurance, inspection, metrology, configuration management and testing aspects of manufacturing enterprises.

See Cerritos College Graduation Requirements.
See State University General Education List.

INDUSTRIAL TECHNOLOGY—AUTOMATED MANUFACTURING — 839

CERTIFICATE OF ACHIEVEMENT

		UNITS
MTT 100	Modern Manufacturing Concepts and Techniques	2.5
MTT 170	Computer Numerical Control Programming	4
PMT 66	Hydraulics and Pneumatics	3
EL 96A	Introduction to Automated Manufacturing (Robotics)	4
EL 96B	Automated Manufacturing (Advanced Robotics)	4
EL 110	Principles of DC Electronics	3
EL 110L	DC Electronics Laboratory	1
EL 114	Fundamentals of Digital Electronics	3
EL 114L	Fundamentals of Digital Electronics Lab	1
EL 124	Advanced Digital Electronics	3
EL 124L	Advanced Digital Electronics Lab	1
EL 244	Introduction to Microcomputers	4
TOTAL UNITS		39

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Complete 60 units to include (1) the Certificate of Achievement requirements, (2) ENGT 38, (3) the Associate in Arts Degree general education requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: PHYS 2.1

INTERNATIONAL STUDIES PROGRAM

GLOBAL POLITICS / DIPLOMACY—515

CERTIFICATE OF ACHIEVEMENT

Core Requirements (Certificate of Completion)		UNITS
GEOG 105	World Regional Geography	3
POL 210	International Relations	3
BA 101	International Business	3
AND ONE OF THE FOLLOWING:		
PHIL 200	World Religions	3
ANTH 100	Cultural Anthropology	3

Division Requirements

ENGL 106	Introduction to Language Study	3
POL 220	Comparative Government	3
SELECT 6 UNITS OF THE FOLLOWING:		
POL 230	Contemporary Political Issues: Middle East	3
HIST 221	History of Americas	3
HIST 265	Selected Problems in Contemporary Asiatic History	3
HIST 255	History of Russia and the Soviet Union	3
ECON 101	American Economic System	3
TOTAL CERTIFICATE REQUIREMENTS		24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Global Politics/Diplomacy and complete electives and general education requirements to achieve a minimum of 60 units.

GLOBAL RESOURCES—516
CERTIFICATE OF ACHIEVEMENT

Core Requirements (Certificate of Completion)		UNITS
GEOG 105	World Regional Geography	3
POL 210	International Relations	3
BA 101	International Business	3
AND ONE OF THE FOLLOWING		
PHIL 200	World Religions	3
ANTH 100	Cultural Anthropology	3
Division Requirements		
ENGL 106	Introduction to Language Study	3
ESCI 101	Physical Ecology	3
SELECT 6 UNITS FROM THE FOLLOWING:		
GEOG 101	Physical Geography	3
GEOG 102	Natural and Cultural Geography	3
GEOL 101	Physical Geology	3
GEOL 110	Introduction to Geology	3
ESCI 101L	Physical Ecology Field Laboratory	1
ESCI 104	Oceanography	3
TOTAL CERTIFICATE REQUIREMENTS		24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Global Resources and complete electives and general education requirements to achieve a minimum of 60 units.

INTERNATIONAL BUSINESS—517
CERTIFICATE OF ACHIEVEMENT

Core Requirements (Certificate of Completion)		UNITS
GEOG 105	World Regional Geography	3
POL 210	International Relations	3
BA 101	International Business	3
AND ONE OF THE FOLLOWING:		
PHIL 200	World Religions	3
ANTH 100	Cultural Anthropology	3
DIVISION REQUIREMENTS		
ENGL 106	Introduction to Language Study	3
BA 104	Cultural Bridges for Business	3
BA 114	Marketing	3
SELECT 3 UNITS OF THE FOLLOWING:		
BUSA 100	Introduction to Accounting	3
BA 112	Business Law	3
BUSF 126	Introduction to Stock Market and Investments	3
ECON 101	American Economics Systems	3
TOTAL CERTIFICATE REQUIREMENTS		24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in International Business and complete electives and general education requirements to achieve a minimum of 60 units.

INTERPRETING / TRANSLATING—518
CERTIFICATE OF ACHIEVEMENT

Core Requirements (Certificate of Completion)		UNITS
GEOG 105	World Regional Geography	3
POL 210	International Relations	3
BA 101	International Business	3
AND ONE OF THE FOLLOWING:		
PHIL 200	World Religions	3
ANTH 100	Cultural Anthropology	3
DivisIon Requirements		
ENGL 106	Introduction to Language Study	3
AND ONE OF THE FOLLOWING OPTIONS:		
SPAN 282	Intermediate Conversational Spanish	3
SPAN 283	Advanced Conversational Spanish	3
FREN 202	Intermediate French	4
FREN 203	Intermediate French Advanced Level I	4
GERM 203	Scientific German	4
GERM 204	Scientific German	4
JAPN 102	Elementary Japanese	5
JAPN 201	Intermediate Japanese	5
SPAN 201	Intermediate Spanish	5
and SPAN 202	Intermediate Spanish	4
or SPAN 112	Elementary Spanish for Spanish Speakers	(5)
and SPAN 202	Intermediate Spanish	4
or SPAN 213	Living Spanish Grammar and Written Communication	(2)
SPAN 214	Living Spanish Grammar and Written Communication	(2)
and SPAN 202	Intermediate Spanish	4
TOTAL CERTIFICATE REQUIREMENTS		24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Interpreting/Translating and complete electives and general education requirements to achieve a minimum of 60 units.

WORLD CULTURES—519
CERTIFICATE OF ACHIEVEMENT

Core Requirements (Certificate of Completion)		UNITS
GEOG 105	World Regional Geography	3
POL 210	International Relations	3
BA 101	International Business	3
AND ONE OF THE FOLLOWING:		
PHIL 200	World Religions	3
ANTH 100	Cultural Anthropology	3
Division Requirements		
ENGL 106	Introduction to Language Study	3
HUM 100	The Art of Being Human	3
SELECT 6 UNITS FROM THE FOLLOWING:		
HIST 230	History of Mexico	3
HIST 260	Survey of Asiatic History	3
PHIL 200	World Religions	3
ANTH 100	Cultural Anthropology	3
ANTH 202	Ancient Civilizations of the –Americas	3
GEOG 102	Natural and Cultural Geography	3
TOTAL CERTIFICATE REQUIREMENTS		24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Meet the requirements for a Certificate of Achievement in World

Cultures and complete electives and general education requirements to achieve a minimum of 60 units.

JOURNALISM—140

ASSOCIATE IN ARTS DEGREE PROGRAM

Core Requirements (19 units)		**UNITS**
JOUR 100	Introduction to Mass Communication	3
JOUR 101	Beginning Newswriting and Reporting	3
JOUR 103	Newspaper Article Writing	2
JOUR 105	Newspaper Production	2
JOUR 130	Photo Journalism	3
ART 188	Design for Desktop Publishing	3
CIS 121	Introduction to Internet	1.5
CIS 205	Programming in HTML for the World Wide Web	1.5

Department Requirements (10 units)		
JOUR 110	Principles of Public Relations	3
JOUR 298	Directed Studies in Journalism	1
or JOUR 50L	Editorial Board	(1)

Plus a minimum of five units in additional Journalism courses--5

NOTE: Journalism students intending to transfer to a four-year college are referred to the Transfer Journalism Program of Study 145.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Complete a minimum of 60 units to include (1) the above Journalism courses and unit requirements, (2) AA Degree General Education Requirements, and (3) electives as needed.

CERTIFICATE OF ACHIEVEMENT—140

Journalism Major Department Core Requirements	**19**
Journalism Major Department Requirements	**10**
Journalism Certificate Requirements	**9**

BA 109	Marketing	3
or BA 110	Advertising	(3)
JOUR 299	Directed Studies (should be internship experience)	2

Certificate Electives (2 Units Minimum)		
PHOT 110	Digital Imaging	3
or ART 192	Photoshop/Digital Imaging	(3)
TH 152	Introduction to Broadcasting	3
ART 194	Multimedia Design	3
ENGL 155	Technical Writing	3
PHOT 100	Introductory Photography	3
POL 101	American Political Institutions	3
SPCH 160	Parliamentary Procedure	1
TOTAL CERTIFICATE UNITS		38

BROADCAST JOURNALISM—141

CERTIFICATE OF ACHIEVEMENT

The certificate helps the student focus on the study of and preparation for entry level employment in the growing field of broadcast news at radio stations and television stations, and in online journalism ventures.

Broadcast Journalism Certificate Requirements		**17**
JOUR 100	Introduction to Mass Communications	3
JOUR 101	Beginning Newswriting and Reporting	3
JOUR 170	Broadcast News	1
TH 152	Introduction to Broadcasting	3
TH 155	Radio Production	3

Plus four units of the following:

JOUR 120	Internet for Journalists	2
JOUR 170	Broadcast News	1*
SPCH 100	Fundamentals of Oral Communication	3
SPCH 140	Oral Interpretation of Literature	3
SPCH 240	Oral Interpretation – Reader's Theater	3
TH 108	Improvisation for Theater	3
TH 117	Stand-Up Comedy	3

*May be repeated; a maximum of 2 units may be applied.

ONLINE JOURNALISM—142

CERTIFICATE OF ACHIEVEMENT

The certificate helps the student focus on the study of and preparation for entry level employment in the growing field of online journalism. The certificate should be particularly helpful to those who will be helping small publications start online news ventures.

Online Journalism Certificate Requirements		**17**
JOUR 100	Introduction to Mass Communications	3
JOUR 101	Beginning Newswriting	3
JOUR 120	Internet for Journalists	2
PHOT 110	Introduction to Digital Imaging	3
or ART 192	Photoshop/Digital Imaging	3

Plus one unit from the following:

JOUR 298	Directed Studies	1
or JOUR 50L	Editorial Board	1

Plus two units from the following:

JOUR 103	Newspaper Article Writing	2
or JOUR 105	Newspaper Production	2

And three units from the following:

ART 196	Introduction to Designing Web Graphics	3
CIS 205	Programming in HTML for the World Wide Web	1.5
CIS 120	Web Design with Microsoft Front Page	1.5
PHOT 112	Intermediate Digital Photography	3

PHOTOJOURNALISM—143

CERTIFICATE OF ACHIEVEMENT

The certificate helps the student focus on the study of and preparation for entry level employment in the field of photojournalism. The certificate should be particularly helpful to those looking for employment at newspapers, magazines, corporate and government public relations departments and online journalism ventures.

PhotoJournalism Certificate Requirements		**17**
JOUR 130	Photo Journalism	3
PHOT 100	Introductory Photography	3
PHOT 110	Introduction to Digital Photography	3

Plus three units of the following:

BA 100	Fundamentals of Business	3
or BUSA 100	Introduction to Accounting	3

Plus five units from the following:

JOUR 105	Newspaper Production(can be repeated)	2*
JOUR 160L	Magazine Production(can be repeated)	1**
JOUR 298	Directed Studies (maximum 1 unit)	1
JOUR 299	Directed Studies (internship-maximum 2 units)	2
BA 110	Advertising	3

*may be repeated; a maximum of four units may be applied

**may be repeated; a maximum of two units may be applied

PUBLIC RELATIONS—147
CERTIFICATE OF ACHIEVEMENT

Journalism Major Department Core Requirements		**19**
Journalism Major Department Requirements		**10**
Public Relations Certificate Requirements		**9**
BA 100	Fundamentals of Business	3
BA 114	Marketing	3
or BA 110	Advertising	(3)
JOUR 299	Directed Studies	2
Certificate Electives (1 Units Minimum		
PHOT 110	Digital Imaging	3
or ART 192	Photoshop/Digital Imaging	3
TH 152	Introduction to Broadcasting	3
ART 194	Multimedia Design	3
ENGL 155	Introduction to Technical Writing	3
PHOT 100	Introductory Photography	3
SPCH 160	Parliamentary Procedure	1
TOTAL CERTIFICATE UNITS		38

See Cerritos College Graduation Requirements.

CAREER OPPORTUNITIES: The A.A. Degree, the Certificate in Public Relations, and the Certificate in Journalism by themselves, or with other education and degrees as appropriate, may directly or indirectly enhance employment potential in a broad job spectrum where media communications and related analytical skills are desirable. These include writer/reporter/editor for both print and broadcast/electronic journalism media (newspaper, magazine, radio, TV, etc.), corporate communications and public relations, public information and publicity, business and industrial journalism, newsletter writer and publisher, freelance writer, photographer, advertising copywriter and salesperson, journalism teacher and student publications adviser, non-fiction book and article writer, editorial and publications services consultant, and myriad other publishing and related areas.

JOURNALISM—145
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY

		UNITS
JOUR 100	Introduction to Mass Communications	3
JOUR 101	Beginning News Writing and Reporting	3

ADDITIONAL LOWER DIVISION REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Fullerton
Journalism Concentration, Communications Major

JOUR 201	Advanced Reporting and Editing	3
PHOT 100	Introductory Photography	3

Broadcast Journalism Concentration, Communications Major

TH 258	Writing for Movies and Television	3

Other Communication major concentrations are: Advertising; Photo-Communications; Public Relations; Television and Film.

California State University – Long Beach
Broadcast Journalism Concentration, Journalism Major

SPCH 271	Voice and Articulation	3

Other Journalism options: Print Journalism, Journalism Education, Photojournalism, and Public Relations.

THE UNIVERSITY OF CALIFORNIA

There is no Journalism major at any campus of the University of California.

NOTE: The ability to word process and use the Internet are prerequisites for all students majoring in Journalism. See the Fine Arts Counselor for lower division preparation for other California State University Broadcast Journalism programs.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units to include: (1) the above required courses plus electives in Journalism and Photography for a minimum of 18 units, (2) AA Degree general education requirements and (3) electives as needed.

See Cerritos College Graduation Requirements.
See State University General Education List.

KINESIOLOGY
TRANSFER PROGRAM
(SEE PHYSICAL EDUCATION)

LEGAL STUDIES—272
TRANSFER PROGRAM

This is a multi-discipline program for students without a designated major interested in the study of the law. This program is designed to provide the students with a broad background in the areas of Administration of Justice, Business, Economics, History, Philosophy, and Political Science. Admission to law school does not require any specific major, and admission is based primarily on academic excellence and L.S.A.T. test achievement. Students interested in entering law school with a designated major should remain in their present major.

COURSE REQUIREMENTS

This program requires a selection of two courses from at least three areas, for a total of 18 units for the major in Legal Studies. This program is designed to transfer to various universities. Please check with your counselor regarding general education requirements for specific transfer institutions.

A. Administration of Justice		**UNITS**
AJ 102	Concepts of Criminal Law	3
AJ 202	Substantive Law	3
AJ 103	Criminal Procedures	3
B. Business Administration		
BA 111	Business Law	3
BA 112	Business Law-	3
BL 101	Introduction to Law	3
C. Economics		
ECON 201	Principles	3
ECON 202	Principles	3
D. History		
HIST 201	Political & Social History of the U.S.	3
HIST 202	Political & Social History of the U.S	3

or HIST 240	Western Civilization	(3)
HIST 241	Western Civilization	3
E. Philosophy		
PHIL 106	Introduction to Logic	3
PHIL 102	Introduction to Ethics	3
F. Political Science		
POL 202	Comparative Government	3
POL 210	International Relations	3

ELECTIVES

Choose those courses from academic areas that represent a broad academic background of courses that specifically apply towards a bachelor's degree at the transfer institution.

For information regarding law schools for legal and paralegal training institutions, contact the American Bar Association, 750 N. Lake Shore Drive, Chicago, IL 60611.

For more complete up-to-date information regarding requirements in legal careers and legal programs at other colleges and universities, please contact the Cerritos College legal counselor.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The completion of 60 units, including the above required courses and the Associate in Arts general education requirements qualifies a student for the Associate in Arts degree in Legal Studies.

CAREER OPPORTUNITIES: A licensed attorney at law may practice law in many specialized areas of the law or become a general practitioner. Attorneys are employed at all levels of government. Industry employs lawyers at numerous occupational positions. Check with your counselor for other occupational positions that are related to the legal area.

MACHINE TOOL TECHNOLOGY—860

CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
MTT 1L	Numerical Control Specialty	3
MTT 50	Machine Shop Mathematics	3
MTT 51	CAD/CAM Introduction	3.5
MTT 52	Setup & Operation of CNC Machinery	2.5
MTT 54	Blueprint Reading	2.5
MTT 56	Shop Inspection	2.5
MTT 60	Advanced Machine Tool Concepts	2.5
MTT 62	Fixture Tooling	2.5
MTT 76	CAD/CAM Virtual Gibbs	2.5
MTT 100	Machine Tool Introduction	2.5
MTT 170	Computer Numerical Control Programming	2.5
MTT 172	Parts Programming	2.5
MTT 278	CAD/CAM Advanced	3.5
ENGT 131	Fundamentals of Drafting	3
WELD 100	Welding Fundamentals	2
TOTAL CERTIFICATE REQUIREMENTS		39

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above requirements for a Certificate of Achievement, (2) MET 100A, PMT 65, ENGT 138, TM 50 (3) the A.A. Degree requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: MFGT 100,MMT 1L.

CAREER OPPORTUNITIES: CNC Parts Programmer, CNC Machine Tool Operator.

See Cerritos College Graduation Requirements.

MACHINIST TRAINEE

CERTIFICATION OF COMPLETION

Division / Department Requirements:		UNITS
MTT 50	Machine Shop Mathematics	3
MTT 52	Setup and Operation of CNC Machinery	2.5
MTT 54	Blueprint Reading	2.5
MTT 60	Advanced Machine Tool Concepts	2.5
MTT 100	Machine Tool Introduction	2.5
MTT 170	Computer Numerical Control Programming	2.5
TOTAL CERTIFICATE REQUIREMENTS		15.5

MANUFACTURING TECHNOLOGY (MFGT)

CERTIFICATION OF COMPLETION REQUIREMENTS

The four and a half to six units for the specialty may come from the units completed toward the degree or from additional courses outlined below. Students with previous coursework may also be considered for certificates upon providing transcripts for review through the matriculation process.

Quality Assurance (QA)		
MFGT 60	Quality Assurance (QA)	1.5
MFGT 55	Quality Control (QC)	1.5
MFGT 57	Total Quality Management (TQM)	1.5
		4.5
Quality Control (QC)		
MFGT 55	Quality Control (QC)	1.5
MFGT 53	Statistical Process Control (SPC)	1.5
MET 120	Nondestructive Testing (NDT)	3.0
		6.0
Statistical Process Control (SPC)		
MFGT 55	Quality Control (QC)	1.5
MFGT 53	Statistical Process Control (SPC)	1.5
TM 50	Technical Math	3.0
		5.5
Total Quality Management (TQM)		
MFGT 57	Total Quality Management (TQM)	1.5
MFGT 60	Quality Assurance (QA)	1.5
MFGT 59	Design of Experiments (DOE)	1.5
MFGT 58	Benchmarking	1.5
		6.0
ISO 9000		
MFGT 60	Quality Assurance (QA)	1.5
MFGT 55	Quality Control (QC)	1.5
MFGT 56	ISO 9000	1.5
		4.5
Advanced Quality Systems (AQS)		
MFGT 57	Total Quality Management (TQM)	1.5
MFGT 53	Statistical Process Control (SPC)	1.5
MFGT 58	Benchmarking	1.5
MFGT 59	Design of Experiments (DOE)	1.5
		6.0

MATHEMATICS—620
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND CALIFORNIA STATE UNIVERSITY

		UNITS
MATH 150	Pre-Calculus Mathematics	4
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytical Geometry and Calculus III	4

California State University - Dominguez Hills

PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
(Math Education option, also take MATH 112)		
See Counselor for details.		
CIS 178	Programming in Fortran	3
or CIS 177	Programming in Pascal	(3)
MATH 240	Calculus and Differential Equations	4

Must also complete a "cognate" area. See counselor for details.

California State University - Long Beach

CIS 280	Object-Orientated Programming in C++	3
ENGL 100	Freshman Composition	3
PHYS 201	Engineering Physics	4

See a Counselor for specific options, i.e. Math Education.

California State University - Los Angeles

CIS 101	Introduction to Computer Information Systems	3
ENGL 103	Critical and Argumentative Writing	3
MATH 240	Calculus and Differential Equations	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

California State Polytechnic University - Pomona

CIS 180	Programming in C/C++	3
or CIS 178	Programming in Fortran	(3)
MATH 240	Calculus and Differential Equations	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

University of California - Irvine

CIS 180	Programming in C/C++	3
and CIS 280	Object-Oriented Programming in C++	4
or CIS 178	Programming in Fortran	(3)
MATH 240	Calculus and Differential Equations	4
CHEM 111	General Chemistry	5
and CHEM 112	General Chemistry	5
or PHYS 201	Engineering Physics	(4)
and PHYS 202	Engineering Physics	4
or PHYS 201	Engineering Physics	(4)
and PHYS 203	Engineering Physics	4
See a counselor for teaching specialization.		

University of California - Los Angeles

CIS 280	Object-Orientated Programming in C++	3
MATH 240	Calculus and Differential Equations	4
PHYS 201	Engineering Physics	4
AND TWO ADDITIONAL COURSES FROM:		
CHEM 111	General Chemistry	5
and CHEM 112	General Chemistry	5
or PHYS 202	Engineering Physics	(4)
and PHYS 203	Engineering Physics	4

ASSOCIATES IN ARTS DEGREE:

Complete the above common lower division requirements and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: After transfer to a four-year university and completion of the Bachelor's Degree program, graduates qualify for positions as mathematicians in government and industry, secondary teaching, graduate study, statisticians, and careers in computer science.

See Cerritos College Graduation Requirements.
See University General Education List.

MEDICAL ASSISTANT
PATIENT CARE AREAS

VERIFICATION OF COMPLETION

FRONT OFFICE		UNITS
MA 60	Introduction to Medical Assisting	2
MA 62	Medical Insurance and Liability	3
MA 161	Medical Terminology	3
CIS 102	Introduction to Microcomputer Hardware and Applications Software	3
SPCH 45	Speech Communication for Careers	1
Total Verification Requirements		12

Employment in this field requires good vision, hearing, and the ability to communicate orally. In addition, the student must have the ability to comprehend and interpret written communication.

CAREER OPPORTUNITIES: Upon completion of the program, employment is available in a physician's office, large HMO, or hospital at an entry level position; i.e., receptionist, insurance clerk, and/or ward clerk.

Lab Technician Skills

A Verification of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

		UNITS
HO 54	Medical Laboratory Skills	1
HO 55	Phlebotomy Procedures	1
MA 161	Medical Terminology	3
SPCH 45	Speech Communication for Careers	1
		6

Phlebotomist SkillS

A Verification of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

		UNITS
HO 55	Phlebotomy Procedures	1
MA 161	Medical Terminology	3
SPCH 45	Speech Communication for Careers	1
		5

EKG Technician Skills

A Verification of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

		UNITS
HO 53	Electrocardiography	1
MA 161	Medical Terminology	3
SPCH 45	Speech Communication for Careers	1
		5

MEDICAL ASSISTANT—911

Length and Kind of Program

The medical assistant program may be completed in two semesters with the curriculum leading to a Certificate of Achievement in Medical Assisting. The program culminates in a clinical lab experience which may be completed through an internship or occupational work experience.

Academic Requirements

To obtain a Certificate of Achievement, the student must achieve a grade of "C" or better in required medical assisting and general education course work. (Twelve units of the program must have been taken within the last five (5) years.) MA 67 and MA 68 have prerequisite courses which must be completed with a grade of "C" or better.

Expenses

A. See the college catalog for enrollment fees.
B. The student may expect to spend approximately $400 for books and uniforms. Health screening and immunizations will be at the student's expense.

Health

Health clearance requirements will vary depending on where lab experiences will be completed (MA 68, MA 73, MA 74). Students must present evidence of compliance with facility health standards. Standards will include, but are not limited to, TB testing and immunizations. Immunization records meeting the standards of the clinical site must be completed before the first class session.

Employment in this field requires good vision, hearing, and the ability to communicate orally. In addition, students must have the ability to comprehend, analyze, and evaluate patients' charts in order to provide appropriate treatment. Applicants must be able to record in patients' charts and have the dexterity to use small instruments to provide patient care. The student must be able to work as a team player and demonstrate efficient customer service skills.

Internship and Occupational Work Experience

To be placed in a health care facility where direct patient contact will occur (MA 68, MA 73, MA 74), the student must present evidence of health clearance and current certification in CPR and First Aid training. Health clearance, CPR and First Aid requirements must be valid for the duration of the clinical affiliation and must be submitted prior to placement in the clinical agency. Student placements are predominately during the day hours.

CPR certification may be obtained through American Heart Association Health Care Provider training (industry preferred) or American Red Cross Professional Rescuer Training. Standard First Aid training is available through the American Red Cross.

MEDICAL ASSISTANT—911
CERTIFICATE OF ACHIEVEMENT

		UNITS
MEDICAL ASSISTING		
MA 60	Introduction to Medical Assisting	2
MA 62	Medical Insurance and Liability	3
MA 64	Medical Office Assisting	3
MA 66	Medications and Specialties	3
MA 67	Medical Office Administration	3
*MA 68	Medical Assisting Internship Experience	4
*MA 73	Medical Assisting Occupational Work Experience	(3)
*MA 74	Medical Assisting Occupational Work Experience	(4)
MA 161	Medical Terminology	3
HEALTH OCCUPATIONS		
HO 53	Electrocardiography	1
HO 54	Medical Laboratory Skills	1
HO 55	Phlebotomy Procedures	1
HO 151	Elements of Nutrition	2
or HO 152	Nutrition	(3)
PSYCHOLOGY		
PSYC 101	General Introductory Psychology	3
or PSYC 150	Personal and Social Adjustment	(3)
TOTAL CERTIFICATE REQUIREMENTS		(28)30

*Students may select one of these options to complete the medical assisting internship requirement. Only one option can be selected and the course may not be repeated more than one time.

Students who are currently employed in a medical office up to 19 hours per week, should enroll in MA 73. Students who are currently employed in a medical office more than 20 hours per week should enroll in MA 74.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Medical Assisting. Plus, for an A.A. Degree a student must take A&P 120, electives and general education requirements to achieve a minimum of 60 units. See Cerritos College Graduation Requirements.

CAREER OPPORTUNITIES: Upon completion of the program, employment is available in a doctor's office working in a front or back office environment as a receptionist, insurance clerk and assisting the doctor.

See Cerritos College Graduation Requirements.

METALLURGY AND MATERIALS SCIENCE—862
CERTIFICATE OF ACHIEVEMENT PROGRAM

WELDING		UNITS
WELD 100	Welding Fundamentals	2
METALLURGY		
MET 50	Heat Treatment of Nonferrous Metals	2
MET 100A	Metallurgy I	3
MET 120	Nondestructive Testing	3
MET 130A	Heat Treatment of Iron and Steel	2

CHEMISTRY

CHEM 100	Introductory Chemistry	4
or CHEM 110	Elementary Chemistry	(4)

TECHNICAL MATHEMATICS

TM 50	Technical Mathematics	3
or MATH 80	Intermediate Algebra	(4)
or MATH 140	Trigonometry	(3)
Total Certificate Requirements		31 (32)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include: (1) the above requirements for the Certificate of Achievement, (2) BCOM 148 or ENGL 100; or PHYS 100, or PHYS 101; MFGT 100, (3) the Associate in Arts Degree general education requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: MTT 170, ENGT 153

CAREER OPPORTUNITIES: The metallurgical technician may work several areas, such as metallographic lab, heat treating, quality control, research, non-destructive testing, physical testing, and engineering liaison.

See Cerritos College Graduation Requirements.

METALLURGY AND MATERIALS SCIENCE (MET)

SPECIALTY REQUIREMENTS

In order to obtain a Metallurgy Specialty, the student is encouraged to complete the required units for the Metallurgy and Materials Science degree. The four and a half to seven and a half units for the specialty may come from the units completed toward the degree or from additional courses outlined below. Students with previous coursework may also be considered for certificates upon providing transcripts for review through the matriculation process.

Metallurgy and Materials Science Specialty

MET 55	Laboratory Procedures	1.0
MET 100A	Metallurgy I	3.0
MET 100B	Metallurgy II	2.5
		6.5

Ferrous Metallurgy Specialty

MET 52L	Metallurgy Specialty Lab	0.5
MET 53	Ferrous Metallurgy	3.0
MET 100A	Metallurgy I	3.0
		6.5

Nonferrous Metallurgy Specialty

MET 54	Nonferrous Metallurgy	3.0
MET 56	Survey of Nonferrous Heat Treat	1.5
MET 100A	Metallurgy I	3.0
		7.5

Nondestructive Testing Specialty (NDT)

MET 52L	Metallurgy Specialty Lab	0.5
MET 100A	Metallurgy I	3.0
MET 120	Nondestructive Testing (NDT)	3.0
		6.5

Ferrous Heat Treat Specialty

MET 50A	Heat Treating of Ferrous Metals	1.5
MET 53	Ferrous Metallurgy	3
MET 100A	Metallurgy I	3.0
		7.5

Nonferrous Heat Treat Specialty

MET 52L	Metallurgy Specialty Lab	0.5
MET 56	Survey of Nonferrous Heat Treat	1.5
MET 100A	Metallurgy I	3.0
		5.0

Laboratory Specialty

MET 52L	Metallurgy Specialty Lab	0.5
MET 55	Laboratory Procedures	1.0
MET 100A	Metallurgy I	3.0
		4.5

Welding Metallurgy Specialty

MET 51	Welding Metallurgy	2.0
MET 52L	Metallurgy Specialty Lab	0.5
MET 100A	Metallurgy I	3.0
		5.5

Quality Specialty

MET 52L	Metallurgy Specialty Lab	0.5
MFGT 53	Statistical Process Control (SPC)	1.5
MFGT 60	Quality Assurance (QA)	1.5
MET 100A	Metallurgy I	3.0
		6.5

MICROBIOLOGY—660
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND THE UNIVERSITY OF CALIFORNIA

		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills (Option within the Biology major)

MATH 112	Elementary Statistics	
MATH 116	Calculus for Managerial, Biological, and Social Sciences	4
or MATH 170	Analytic Geometry and Calculus I	(4)
PHYS 101	General Physics	4
and PHYS 102	General Physics	4
or PHYS 201	Engineering Physics	(4)
and PHYS 202	Engineering Physics	4

California State University – Long Beach

MICRO 200	Principles and Applications of Microbiology	5
CHEM 205	Quantitative Analysis Chemistry	4
MATH 116	Calculus for Managerial, Biological, and Social Sciences	4
or MATH 170	Analytic Geometry and Calculus I	(4)
PHYS 101	General Physics	4
PHYS 102	General Physics	4

California State University – Los Angeles

ENGL 103	Critical and Argumentative Writing	3
MICRO 200	Principles and Applications of Microbiology	5
CHEM 205	Quantitative Analysis Chemistry	4
MATH 140	Trigonometry	3
MATH 150	Pre-Calculus Mathematics	4
PHYS 101	General Physics	4
PHYS 102	General Physics	4

California State Polytechnic University – Pomona
(Microbiology Medical Technology)

MICRO 200	Principles and Applications of Microbiology	5
A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
PHYS 101	General Physics	4
PHYS 102	General Physics	4

See a counselor for further information

University of California – Los Angeles
(Microbiology, Immunology and Molecular Genetics)

BIOL 202	Molecular Biology/Genetics	4
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include: (1) the above common lower division preparation and MICRO 200, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: Bachelor's Degree programs with an emphasis in Microbiology are designed to qualify the student for graduate study in the field. Careers include employment in various types of Federal employment; State Civil Service work such as Public Health Microbiologist; industrial microbiological work in divergent fields such as the pharmaceutical industry, brewing, industrial fermentation's, and the dairy industry; work as a hospital microbiologist or research technician positions in university research projects.

See Cerritos College Graduation Requirements.
See State University General Education List.

MUSIC

PIANO VERIFICATION OF COMPLETION

The two-level verification of completion piano teaching program is designed to include the following objectives:

To improve skills at the keyboard
To develop knowledge of music theory and history
To explore group and private piano teaching methods
To develop communication and organizational skills
To gain resourceful materials in the area of pedagogy and other related areas.

A verification of completion in Teaching Beginning Piano will be granted upon completion of 16.5 required units with a minimum grade point of 2.0. A second verification of completion in Teaching Intermediate Piano will be granted upon completion of 13.5 units with a minimum grade point of 2.0.

PIANO TEACHING CERTIFICATE COURSES ARE AS FOLLOWS:

TEACHING BEGINNING PIANO VERIFICATION OF COMPLETION

		UNITS
BA 153	Small Business Management	3
MUS 105	Music Fundamentals	3
MUS 106	Music Theory/Musicianship I	5
MUS 147	Basic Applied Music	1
MUS 148	Private Study/Recital I	1
MUS 152	The Art of Teaching Beginning Piano	2
MUS 154	Piano Ensemble	1.5
TOTAL:		16.5

TEACHING INTERMEDIATE PIANO VERIFICATION OF COMPLETION

		UNITS
MUS 100	Music Appreciation	3
MUS 107	Music Theory/Musicianship II	5
MUS 149	Private Study/Recital II	1
MUS 150	Private Study/Recital III	1
MUS 153	The Art of Teaching Intermediate Piano	2
MUS 154	Piano Ensemble	1.5
TOTAL:		13.5

MUSIC—COMMERCIAL—120
ASSOCIATE IN ARTS DEGREE

Required Music Courses:		UNITS
MUS 104	American Popular Music	3
MUS 104B	History of Rock Music	3
MUS 106, 107	Music Theory/Musicianship I, II	5-5
MUS 112	Elementary Piano I	2.5
MUS 135	This Business of Music	3
MUS 144, 145	Electronic Synthesizer I, II	2-1
MUS 146	Recording Techniques	2
*Music Electives		6
TOTAL:		32.5

*Music Electives: MUS 101, 102, 103, 104, 104B, 105, 108, 109, 114, 115, 118, 119, 124, 124A, 125, 125A, 126, 127, 128, 129, 130, 131, 132, 133, 134, 136, 138, 139, 140, 141, 142, 160, 161, 162, 163, and 164.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 units to include: (1) The above music course and unit requirements, (2) the A.A. Degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Professional stage band; club work; arranging; copying; radio, television, choral groups; music stores; studio teaching; instrument repair.

MUSIC—GENERAL—121
ASSOCIATE IN ARTS DEGREE

Theory, private study/recital, and performance classes are required each semester of full-time program (4 semesters). Placement in the appropriate level of theory and private study is made by the Music Department.

Required Music Courses:		UNITS
MUS 100	Music Appreciation	3
MUS 106	Music Theory/Musicianship I	5
MUS 107	Music Theory/Musicianship II	5
MUS 112	Elementary Piano I	2
MUS 113	Elementary Piano II	2
MUS 148	Private Study/Recital I *	1

MUS 149	Private Study/Recital II *	1
MUS 150	Private Study/Recital III *	1
MUS 151	Private Study/Recital IV *	1
One course from:		
MUS 101, 102, 103, 104, or 104B		3
**Music Electives		12
TOTAL		40-46

* Co-requisite of a performing ensemble is required: MUS 124, 124A, 125, 125A, 126, 127, 128, 129, 130, 131, 132, 133, 134, 136, 138, 139, 140, 141, 142, 160, 161, 162, 163, and 164

**Music Electives: MUS 101, 102, 103, 104, 104B, 105, 108, 109, 114, 115, 118, 119, 124, 124A, 125, 125A, 126, 127, 128, 129, 130, 131, 132, 133, 136, 134, 138, 139, 140, 141, 142, 160, 161, 162, 163, and 164.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 units to include: (1) The above music course and unit requirements, (2) the A.A. Degree general education requirements, and (3) electives as needed.

Career Opportunities: Music therapist, music librarian, private instrument teacher, music supervisor, concert hall manager, stage manager, cantor, choir section leader, music journalist, music publicist, music publisher, music shop manager, instrument sales representative, intern in music industry, arranger, orchestrator, copyist, sales person, program director for radio, piano tuner-technician, background vocalist, studio (session) musician, and songwriter.

MUSIC—125

TRANSFER PROGRAM

TRANSFER MUSIC MAJORS: Theory, private study/recital, and performance classes are required each semester of full-time program (4 semesters). In addition, a full year of music history and literature is generally required.

Most four-year colleges and universities administer a piano proficiency examination that must be passed by all music majors at their campus.

Placement in the appropriate level of theory and private study is made by the Music Department.

MUS 100	Music Appreciation	3
MUS 106, 107, 108, 109	Music Theory/Musicianship I, II, III, IV	5, 5, 5, 5
MUS 148, 149, 150, 151	Private Study/Recital I, II, III, IV	1, 1, 1, 1

VOICE STUDENTS

MUS 116, 117	Voice Class I, II	2-2
MUS 112, 113	Elementary Piano Class I, II	2-2

INSTRUMENTALISTS

MUS 112, 113	Elementary Piano Class I, II	2-2

Recommended: Music 144, 145, 146, 135, 143, 118, 119, 114, 115, 124, 125, 126, 129, 130, 131, 132, 133, 134, 138, 139, 140.

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

University of California – Irvine

Two (2) courses selected from:

ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
ART 103	Modern and Contemporary Appreciation	3
ART 105	Women Artists	3
ART 106	Mexican Art	3
PE 181	Introduction to Dance Cultures of the World	2
PE 191	History of Dance	3
TH 102	History of Classical Theatre	3
TH 103	History of the Modern Theatre	3

University of California – Los Angeles

In addition to the common lower division transfer music major preparation listed above for transfer music majors, students must complete one year of college level foreign language.

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

Complete a minimum of 60 units to include (1) the above course requirements, (2) the AA Degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: The transfer upper division programs are designed to prepare students for careers in teaching, performance, conducting, arranging in such areas as studio performance, music businesses, opera companies, symphony orchestras, commercial music groups, church music, music therapy.

See Cerritos College Graduation Requirements.
See State University General Education List.

NATURAL SCIENCES—GENERAL—600

ASSOCIATE IN ARTS DEGREE

In order to qualify for an A.A. degree in Natural Sciences - General, the following requirements must be met:

1. Completion of the A.A. degree general education and proficiency requirements;
2. Completion of a minimum of 60 degree applicable units;
3. Completion of at least 18 units of science related coursework from the following:
   a. courses in the Physical Sciences
   b. courses in the Biological Sciences
   c. a course in Mathematics above Intermediate Algebra

See Cerritos College Graduation Requirements.

NURSING

The Cerritos College Nursing Program, accredited by the National League for Nursing, offers an opportunity to prepare for a nursing career through mastery of a specific body of knowledge and skills. To qualify for the program, students must successfully complete prerequisite courses and other requirements as stated below. The generic program (Option A) consists of four semesters of sequenced courses. Students may receive credit for prior nursing courses to facilitate advanced placement. These students include Licensed Psychiatric Technicians, Licensed Vocational Nurses, students transferring from other accredited programs, and foreign-educated nurses.

For successful completion of the nursing program, the student is required to achieve a minimum 75% in all nursing and nursing-related courses. This is consistent with the Board of Registered Nursing's standard of competency for nursing practice. Completion of the program meets qualifications for the NCLEX-RN licensing exam.

PHILOSOPHY

Nursing is defined as a science, discipline and health care practice that focuses on the assessment, diagnosis and treatment of clients having health programs within the domain of nursing. The goals of nursing practice focus on health promotion, illness prevention, rehabilitation, and supporting the resources of the person who is ill or threatened with illness in adapting to changes within the environment.

In addition to implementing the philosophy of the College, the purpose of the Nursing Department is to provide the community with registered nurses who are capable of functioning in a variety of health care settings. To accomplish this, the Roy Adaptation Model has been selected as the primary conceptual framework. Within this framework, nurses recognize their clients as biopsychosocial beings in constant interaction with the environment. In periods of health, individuals have both innate and learned behavioral mechanisms which enable them to cope with their complex internal and external environments. In times of stress, the client's coping mechanisms may be disrupted and the individual is defined as ill. The client's health status is defined on a continuum from wellness to illness.

Nursing practice focuses on adaptation of the client in four major modes: physiological, self-concept, role function, interdependence. The program prepares students to understand individuals as total beings and to recognize and respect a diversity of spiritual and cultural/ethnic values.

ROLE OF THE ASSOCIATE DEGREE NURSE

The Associate Degree Nurse (ADN) graduate is prepared to function as a provider of care, manager of care and member of the discipline of nursing. As provider of care, the ADN utilizes the nursing process as a basis for decisions regarding delivery of care. As a manager of care, the ADN collaborates with other health care providers in organization and delegation of care. As a member of the discipline of nursing, the graduate is committed to professional growth, continuous learning and self-development. In fulfilling these roles, the ADN graduate utilizes critical thinking, demonstrates clinical competence, and is accountable for and committed to the value of caring.

Nursing graduates are employed in a health care delivery system that continues to grow and change. The ADN graduate is an entry-level practitioner and is competent to practice as a direct caregiver in a variety of structured settings in which service is provided to diverse client populations. ADN graduates may subsequently pursue bachelor's, master's and doctoral degrees in nursing in preparation for advanced levels of practice.

CONCEPT OF EDUCATION

Nursing faculty believe that the purpose of education is to enlighten and enhance the quality of life for the student, the community and clients for whom students and graduates provide care. Education based on mastery learning is viewed by the nursing faculty as a collaborative process involving college administrators and staff, nursing faculty and nursing students. Each student enters the nursing program with unique characteristics, capabilities, learning styles, and motivation for learning. To address these differences, learning experiences are structured from simple to complex.

The goal of the program is to promote students' creative and critical thinking and personal growth based on successful learning experiences. Achievement of this goal is fostered by encouraging self-direction and by providing a variety of individual and group learning experiences. Students are expected to participate actively in the learning process.

ADMISSION REQUIREMENTS

The nursing program welcomes all applicants. To be considered for acceptance into the program, the applicant must meet the following requirements:

1. High school graduation or the equivalent.
2. Satisfactory completion of READ 54, MATH 60 and ENGL 52 or equivalent with grades of Credit or "C" or higher or the college placement test process. LVN applicants selecting the 30-unit option are required to complete the placement test process for advisement purposes but are not required to complete these courses.
3. Completion of or current enrollment in prerequisite courses with grades of "C" or higher. In-progress prerequisite course courses must be completed with grades of "C" or higher during semester of application to maintain eligibility to enter program.
4. Overall minimum of 2.0 Grade Point Average for all college work.

APPLICATION PROCESS:

Step 1: If not previously enrolled at Cerritos College, the applicant should go to Admissions and Records (in Administration Building on Alondra Boulevard) and complete an admission form.

Step 2: The applicant should then complete the College's assessment test process. Test schedules are available in the Counseling Department. If assessment test requirements may already have been met by equivalent measures, the applicant should see a counselor for options.

Step 3: The applicant should arrange to submit transcripts to both the Nursing Department and Admissions and Records Department.

a. Official high school transcript or GED score and transcripts of any college work completed or in progress at colleges other than Cerritos College should be sent to: Cerritos College, Admissions and Records Office, 11110 Alondra Blvd., Norwalk, CA 90650.
b. Transcripts (official or unofficial) for the above coursework and for work completed or in progress at Cerritos College to: Cerritos College, Health Occupations Division, Nursing Department, Norwalk, CA 90650.

Step 4: After assessment tests have been completed and transcripts sent, the applicant should make an appointment with a counselor by calling 562-860-2451, ext. 2231; specifying that this is for completion of a nursing application. If transcripts have not been submitted prior to appointment, sealed official copies of transcripts may be hand-carried to the appointment.

Step 5: When the applicant has completed the first page of the application and the counselor has completed the second page of the application, the applicant must bring or send the application to: Cerritos College, Health Occupations Division, Nursing Department, 11110 Alondra Blvd., Norwalk, CA 90650.

Although applications may be submitted at any time, all applications and required documentation must be in the Health Occupations Division Office not later than October 1 for January admission and March 1 for August admission. It is the applicant's responsibility to make sure that all materials are submitted by the deadline.

After the application deadline, all applications are reviewed. For each option, 50% of available spaces will be filled by waiting list (applicants who qualified in prior semesters but were not admitted) and 50% by lottery. All new and waiting list applicants are eligible for

selection by lottery. A lottery is scheduled approximately six weeks following the application deadline.

Applicants for Options B-F are selected on a space available basis. When applications are reviewed and lottery selection has been completed, applicants will be informed of their priorities for admission but it may not be possible at that time to project what openings will be available during the following semester.

SELECTION PROCEDURES AND STANDARDS

1. No application materials will be considered after the specified deadline (March 1 for Fall applicants and October 1 for Spring applicants).
2. The applicant must submit to the Health Occupations Division Office the following items:
   a. A completed application signed by the applicant and a Cerritos College counselor
   b. Verification of high school graduation or GED completion
   c. Transcripts and work-in-progress verification
   d. Assessment test results or indication by counselor that this requirement has been met
   e. Any additional items required for specific option (see below)
3. LVN applicants and transfer students seeking entry at NRSG 222 will be scheduled for a medication calculation examination. Information regarding this examination will be provided prior to the testing date.
4. Option A applicants will be notified as to whether or not they were accepted into the nursing program approximately two weeks after the completion of the lottery process. Alternates for lottery acceptance will also be notified. Applicants seeking advanced placement will be informed of priority for admission based on lottery selection.
5. Students accepted into the nursing program and those identified as alternates are required to attend an orientation meeting. During the meeting, information will be given regarding textbooks, uniforms, registration procedures, and other content.
6. Applicants who are not admitted will receive notification indicating waiting list position. In order to maintain waiting list position, they must complete with a grade of "C" or higher any prerequisites that were in progress at time of application.
7. Student Rights: The nursing student has certain rights in addition to those reflected in the College Student Handbook. These include:
   a. The right to contact professional nursing boards regarding concerns about the educational program.
   b. The right to know of the existence of a policy giving credit for previous nursing education and/or experience.

LENGTH OF PROGRAM AND ANTICIPATED EXPENSES

The core nursing program consists of sequenced courses over a four-semester period. Prerequisite courses are completed prior to these four semesters. In addition general education courses are required for completion of the Associate in Arts degree in nursing (Associate Degree in Nursing – ADN). Some students may need to take additional courses to meet English, reading and mathematics requirements.

Each unit costs $11 for California residents, $125 for non-residents of California and $140 for international students. A College Services ID fee ($10) and Health Services Fee ($10) are assessed each semester.

During the four core semesters, lab material fees total approximately $500, textbooks approximately $1500, and additional supplies and uniforms approximately $350. Students are responsible for their own living arrangements, uniform laundry and transportation to clinical agencies. Application fees for licensure as a registered nurse range from $230 to $277.

Information about costs of NLN-accredited nursing programs is available from the National League for Nursing Accrediting Commission, 350 Hudson Street, New York, NY 10014; telephone (212) 989-9393.

ATTENDANCE

All students are expected to observe the attendance requirements of the Nursing Program as stated in the Nursing Program Student Handbook.

PROMOTION / PROGRESSION

In order to remain enrolled in and complete the program, the student must maintain a "C" grade or higher in all nursing courses and those general education courses specified by the California Board of Registered Nursing for completion of the nursing program. These courses include: HO 151 or HO 152, PSYCH 101, SOC 101 or PHIL 104, ENGL 100, and SPCH 100, SPCH 130, SPCH 132, or SPCH 120. In combined nursing lecture/lab courses, the student must receive a minimum of "C" in lecture and a satisfactory grade in lab in order to successfully complete the course.

REGISTERED NURSE LICENSE APPLICATION

At the completion of the fourth semester of the Nursing Program, the nursing student files an application for licensure (NCLEX-RN) with the Board of Registered Nursing. The application and examination registration fee is $275. In addition, the student may apply for an interim permit for $30. These fees are subject to change by the Board of Registered Nursing.

As stated in the Board of Registered Nursing's application for licensure:

Applicants are required under law to report all misdemeanor and felony convictions. "Driving under the influence" convictions must be reported. Convictions must be reported even if they have been expunged under Penal Code 1203.4 or even if court ordered diversion program has been completed under the Penal Code or under Article 5 of the Vehicle Code. Also, all disciplinary action against an applicant's registered nurse, practical nurse, vocational nurse, or other professional must be reported. Failure to report prior convictions or disciplinary action is considered falsification of application and is grounds for denial of licensure or revocation of license. To make a determination [regarding eligibility for licensure] the Board considers the nature and severity of the offense, additional subsequent acts, recency of acts or crimes, compliance with court sanctions, and evidence of rehabilitation.

NURSING PROGRAM OPTIONS

There are six enrollment options in the Nursing Program:

A. Associate in Arts Degree (also referred to as the "generic" option or Associate Degree in Nursing) –914
B. LPT-ADN (Licensed Psychiatric Technician to Associate Degree in Nursing) – 914
C. LVN-ADN (Licensed Vocational Nurse to Associate Degree in Nursing) – 914
D. LVN-30 Unit Option (LVN + 30 units qualifying for NCLEX-RN, non-degree)
E. Transfer and Challenge

F. Board of Registered Nursing Referral

For Options A, B, C, and E – To graduate with an Associate in Arts Degree in Nursing, the student is required to complete, in addition to the nursing core courses and nursing-related courses, the following general education courses: ENGL 100, POL SCI 101 or POL SCI 201, PSYC 101, SOC 101 or PHIL 104, SPCH 100 or SPCH 120 or SPCH 130 or SPCH 132, and one (1) 3-unit course EACH in the following areas selected from the College's General Education Requirements (listed in the College General Catalog and Schedule of Classes): Fine Arts, Humanities and U.S. History.

OPTION A — ASSOCIATE IN ARTS DEGREEE—914

PREREQUISITES:

A&P 130, MICR 200, HO 151 or HO 152, HO 236 & HO 237, and PSYC 101 or equivalents with grades of Credit or "C" or higher. Successful completion of READ 54, MATH 60, and ENGL 52 or equivalents with grades of Credit or "C" or higher or the college placement test process.

REQUIRED COURSES		UNITS
Semester 1		
NRSG 210	*Fundamentals of Nursing	2
NRSG 211	*Introduction to Theoretical Framework	0.5
NRSG 212	*Medical-Surgical Nursing 1	4
NRSG 213	*Survey of Pharmacology	0.5
NRSG 214	*Medical-Surgical Nursing 2	3
Semester 2		
NRSG 220	**Medical-Surgical Nursing 3	5.5
NRSG 222	**Maternal/Child Nursing	5.5
Semester 3		
NRSG 230	**Psychosocial and Community Nursing	5
NRSG 232	**Medical-Surgical Nursing 4	5
Semester 4		
NRSG 240	**Medical-Surgical Nursing 5	5
NRSG 242	*Professional Role Transition	3

*6-week courses **9-week courses

OPTION B - LPT-ADN MOBILITY PROGRAM — 914

The Nursing Program offers to qualified Licensed Psychiatric Technician applicants an opportunity to prepare for professional nursing through the pursuit of specific knowledge and skills. Graduates from the program, in addition to receiving an Associate of Arts Degree, are eligible for the NCLEX-RN examination for license as a registered nurse.

PREREQUISITES:

A&P 130, MICR 200, HO 152, HO 236 & 237, PSYC 101, NRSG 25, and NRSG 251 or equivalents with grades of Credit or "C" or higher. READ 54, MATH 60, and ENGL 52 or equivalents with grades of Credit or "C" or higher or the college placement test process. Valid California LPT license.

REQUIRED COURSES		UNITS
Semester 1		
NRSG 211	*Introduction to Theoretical Framework	.5
NRSG 213	*Survey of Pharmacology	.5
NRSG 214	*Medical-Surgical Nursing	3
Semester 2		
NRSG 220	**Medical-Surgical Nursing 3	5.5
NRSG 222	**Maternal/Child Nursing	5.5
Semester 3		
NRSG 230	**Psychosocial and Community Nursing	5
NRSG 232	**Medical-Surgical Nursing 4	5
Semester 4		
NRSG 240	**Medical-Surgical Nursing 5	5
NRSG 242	*Professional Role Transition	3

*6-week courses **9-week courses

OPTION C - LVN-ADN MOBILITY PROGRAM — 914

The Nursing Program offers to qualified Licensed Vocational Nurse applicants an opportunity to prepare for professional nursing through the pursuit of specific knowledge and skills. Graduates from the program, in addition to receiving an Associate in Arts Degree, are eligible for the NCLEX-RN examination for licensure as a registered nurse.

PREREQUISITES:

A&P 130, MICR 200, NRSG 26, NRSG 215, HO 236, HO 237, and NRSG 251, and PSYC 101 or equivalent with grades of Credit or "C" or higher. Successful completion of READ 54, MATH 60 and ENGL 52 or equivalent with grades of Credit or "C" or higher or the college placement test process. Valid California LVN license. Completion of a medication calculation examination with a score of 75% or higher.

REQUIRED COURSES		UNITS
Semester 1		
NRSG 230	**Psychosocial and Community Nursing	5
NRSG 232	**Medical-Surgical Nursing 4	5
Semester 2		
NRSG 24O	**Medical-Surgical Nursing 5	5
NRSG 242	*Professional Role Transition	3

*6-week course **9-week courses

OPTION D - LVN-30 UNIT OPTION

The Nursing Program offers to qualified Licensed Vocational Nurse applicants an opportunity to prepare for registered nurse licensure by completing thirty (30) units of college course work. The LVN who completes the thirty units designated by Cerritos College is eligible for the NCLEX-RN examination for licensure as a registered nurse.

PREREQUISITES:

A&P 130, MICR 200, NRSG 215, and NRSG 251 or equivalent with grades of Credit or "C" or higher. Optional Courses: NRSG 26, HO 236 or HO 237. Completion of the college placement test process for advisement purposes. Valid California LVN license. Completion of a medication calculation examination with a score of 75% or higher.

REQUIRED COURSES:		UNITS
Semester 1		
NRSG 230	**Psychosocial and Community Nursing	5
NRSG 232	**Medical-Surgical Nursing 4	5
Semester 2		
NRSG 240	**Medical-Surgical Nursing 5	5

NRSG 242	*Professional Role Transition	3

*6-week course **9-week courses

OPTION E - TRANSFER AND CHALLENGE

PREREQUISITES:

A&P 130, MICR 1, HO 152, HO 236, and HO 237, NRSG 25 or NRSG 26, NRSG 200, NRSG 215, and NRSG 251, and PSYC 101, or equivalent with grades of Credit or "C" or higher. READ 54, MATH 60 and ENGL 52, or equivalent with grades of Credit or "C" or higher or the college placement test process. Students applying under this option will be notified individually for additional requirements relative to their entry points in the curriculum.

CREDIT GRANTING POLICY: Students who have successfully completed academic courses and/or have relevant knowledge and/or skills acquired in other than an accredited institution will be given advanced standing in the nursing program upon verification of such knowledge and/or skills.

TRANSFER CREDIT

A. Credit will be granted for related previous education completed in:
   1. Accredited Vocational or Practical Nursing courses
   2. Accredited Registered Nursing courses
   3. Accredited Psychiatric Technician courses
   4. Armed services nursing courses
   5. Certified Nursing Assistant courses
   6. Other related courses (e.g., Anatomy and Physiology, Nutrition)

B. Official transcripts and/or copies of certificates of completion must be submitted for credit to be granted.

C. Credit will be granted based upon the content and hours of transferring courses and must be equivalent to courses in the Cerritos College Nursing Program.

CHALLENGE CREDIT (COMPETENCY-BASED)

A. Credit may be granted for relevant knowledge and/or skills acquired through prior experience, courses in non-accredited institutions, and individual study which are essentially equivalent to a course for which credit is being requested.

B. Credit shall be determined by successful completion of a comprehensive written examination and/or practical evaluation.

C. Objectives for both the written and/or practical examinations are made available to the student prior to evaluation.

D. Student must meet the requirements which govern credit by examination as stated in the college catalog.

E. A minimum of twelve (12) units of the nursing curriculum must be in residency at Cerritos College in order to receive the Associate Degree in Nursing.

OPTION F - BOARD OF REGISTERED NURSING REFERRAL

Applicants for California licensure as registered nurses may be referred by the Board of Registered Nursing to complete specific areas of nursing content prior to taking the NCLEX-RN examination. The Nursing Program offers such applicants the opportunity to complete nursing preparation as specified by the Board of Registered Nursing.

PREREQUISITES:

A valid letter of referral from the California Board of Registered Nursing for completion of a specified area. NRSG 26 and 215 or equivalents with grades of Credit or "C" or higher.

NURSING—RN—640 TRANSFER PROGRAM

(The following curriculum does not lead to an Associate in Arts Degree. To earn an AA degree, see Nursing—914 in the catalog for the major requirements.)

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Fullerton

Admission requirements as follows:

Meet requirements for admission to the university as a transfer student.

Completion of an AA degree in Nursing or its equivalent.

Current licensure as a registered nurse in California.

Completion of one college level course in each of the following: A&P 130 (or both A&P 200 and 201), CHEM 100 or CHEM 110 or CHEM 111, MICR 200, PSYC 101, SOC 101 or ANTH 100.

Completion of one year of satisfactory work experience as a registered nurse recommended.

California State University – Los Angeles		**UNITS**
A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
CHEM 100	Introductory Chemistry	4
MICR 200	Principles & Applications of Microbiology	5
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3

(The CSULA CHEM 152 requirement must be taken at CSULA. An equivalent course is not available at Cerritos College).

REGISTERED NURSE STUDENTS NOTE: "Students who transfer from Community Colleges with an AA Degree in Nursing and the RN are admitted to the upper division Nursing Program at CSULA."

California State University – Long Beach		
A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
CHEM 100	Introductory Chemistry	4
MICR 200	Introduction to Microbiology and Bacteriology	5
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3

NOTE: The "Basic Student" may apply as a new or transfer student. After the student is accepted in NRSG 200 (at CSULB) the department submits a change of major to Nursing for the student. To be considered as a nursing major at CSULB, basic students are required to complete several requirements including a logical thinking and problem solving test, a writing proficiency exam, and a personal interview. In addition, students must earn a grade "C" or better and have a minimum G.P.A. of 2.5 in all prerequisite courses. Admission is competitive. For more information consult the CSULB catalog or attend group counseling sessions which are held in the

department. Students who hold RN Licensure should consult with a counselor.

University of California – Los Angeles

UCLA School of Nursing

The following is a list of courses required to fulfill the UCLA School of nursing prerequisites. Applicants to the UCLA School of Nursing do not need to complete the IGETC requirements.

A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
ANTH 100	Cultural Anthropology	3
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
BIOL 202	Molecular Biology/Genetics	4
CHEM 111	General Chemistry	5
CHEM 211	Organic Chemistry	5
ENGL 100	Freshman Composition	3
ENGL 102	Freshman Composition and Literature	3
MICR 200	Principles and Applications of Microbiology	5
PHYS 100	Elementary Physics	4
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3

Selected courses from Literature, The Arts, Philosophy, Language & Linguistic, Culture & Civilization (3 Semester Units).

NOTE: Applicants must hold licensure as a Registered Nurse.

Applicants must have completed 90 to 105 transferable quarter units (60 to 70 semester units), including 30 units given for ACT exams to enter the school of Nursing.

Applicants must have a 3.0 cumulative GPA and a minimum grade of "C" in each prerequisite course.

Applicants must have completed the University; American History and Institutions requirements.

CAREER OPPORTUNITIES: Baccalaureate program graduates are prepared to function as a professional nurse in the primary care role in a variety of health settings, such as Hospitals, Clinics, Doctor's offices, Jails, and Armed Services.

See State University General Education List.

ORNAMENTAL HORTICULTURE—686
CERTIFICATE OF ACHIEVEMENT PROGRAM

DEPARTMENT REQUIREMENTS		UNITS
ORNH 100	Introduction to Ornamental Horticulture	3
ORNH 110	Soils	4
ORNH 120	Ornamental Trees	4
ORNH 130	Ornamental Shrubs	4
ORNH 150	Turf Grass Management and Ground Covers	4
ORNH 160	Insects and Weeds	4
ORNH 180	Basic Landscape Design	4
TOTAL CERTIFICATE REQUIREMENTS		27

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the above requirements for a Certificate of Achievement in Ornamental Horticulture. For an A.A. Degree, a student must take a minimum of six units from ORNH 140, PSYC 101, BA 123, CHEM 110, BOT 120, or BA 107, electives and A.A. Degree general education requirements to achieve a minimum of 60 units.

RECOMMENDED ELECTIVES: ORNH 58, ORNH 190.

CAREER OPPORTUNITIES: Nursery industry, parks and recreation departments; nursery supply companies.

See Cerritos College Graduation Requirements.

ORNAMENTAL HORTICULTURE
LANDSCAPE DESIGN AND MAINTENANCE—687

CERTIFICATE OF ACHIEVEMENT		UNITS
ARCH 110	Architectural Drawing	3
ARCH 122	Architectural Delineation	2
ORNH 50	Basic Landscape Irrigation	1.5
ORNH 100	Intro to Ornamental Horticulture	3
ORNH 110	Soils	4
ORNH 120	Ornamental Trees	4
ORNH 130	Turfgrass Management and Ground Covers	4
ORNH 180	Landscape Design	4
TOTAL CERTIFICATE REQUIREMENTS		25.5

RECOMMENDED ELECTIVES: BA 53, BUSA 100.

ORNAMENTAL HORTICULTURE
LANDSCAPE MANAGEMENT—688
CERTIFICATE OF ACHIEVEMENT

DEPARTMENTAL REQUIREMENTS (28 UNITS)		UNITS
ORNH 50	Basic Landscape Irrigation	1.5
ORNH 51	Advanced Landscape Irrigation	1.5
ORNH 52	Residential Landscape Design	1.5
ORNH 53	Commercial Landscape Design	1.5
ORNH 54	Landscape Contracting Management	1.5
ORNH 55	Landscape Contracting Operations	1.5
ORNH 100	Introduction to Ornamental Horticulture	3
ORNH 110	Soils	4
ORNH 120	Ornamental Trees	4
ORNH 130	Ornamental Shrubs	4
ORNH 150	TurfGrass Management and Ground Covers	4
TOTAL UNITS REQUIRED		28

RECOMMENDED ELECTIVES: ENGT 131, ER 16.

ORNAMENTAL HORTICULTURE
FLORAL DESIGN—689
CERTIFICATE OF ACHIEVEMENT

DEPARTMENTAL REQUIREMENTS (25 UNITS)		UNITS
ORNH 58	Interior Plantscapes	2
ORNH 59	Basic Floral Design	2
ORNH 60	Advanced Floral Design	2
ORNH 61A	Special Occasions Floral Design I	2
ORNH 61B	Special Occasions Floral Design II	2
ORNH 62B	Wedding Floral Design I	2
ORNH 62C	Wedding Floral Design II	2
ORNH 63	Integrated Floral Design	1
ORNH 64	Floral Design for Funerals	1
ORNH 100	Introduction to Ornamental Horticulture	3
BUSA 100	Introduction to Accounting	3
BA 153	Small Business Management	3
TOTAL UNITS REQUIRED		25

This program is designed to provide practical training to enable students to secure employment as floral designers. The course offer-

ings extend from entry level floral designing to a variety of advanced floral design courses. Also included are courses which will prepare the student to become a manager or owner of a floral shop.

PHARMACY TECHNOLOGY

PHARMACY CLERK PROGRAM

The pharmacy clerk is a non-registered, technical worker who performs the minimum non-discretionary tasks as allowed by the Board of Pharmacy of the State of California, under the direct supervision of a registered pharmacist. Employment in this field requires applicants to have good vision, hearing, the ability to communicate orally and the physical ability to perform tasks required of a pharmacy clerk. A Verification of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

		UNITS
PHAR 40L	Pharmacy Clerk Lab	1
PHAR 45	Retail Products for Pharmacy Clerks	2
PHAR 47	Pharmacy Clerk Clinical Experience	2
PHAR 60	Pharmacy Introduction and Skills	2
MATH 20	Basic Mathematics	3
*BCOT 62	Microcomputer Keyboarding	1
or *BCOT 135	Typewriting Speed/Control Building	1
Total Units Required		11

*Students who provide documented ability to type 35 wpm or more may choose to waive the keyboarding requirement.

PHARMACY TECHNICIAN—920

The pharmacy technician is a skilled technical health worker who performs a wide variety of non-discretionary pharmacy related tasks under the direct supervision of a registered pharmacist. Successful completion of the pharmacy technician program qualifies one for registration with the California State Board of Pharmacy. Graduates are also encouraged to complete the Pharmacy Technician Certification Exam, the nationally recognized certification exam for pharmacy technicians.

LENGTH AND KIND OF PROGRAM

General education and Pharmacy technician classes are scheduled on the college campus. Correlated clinical experiences take place in selected hospitals and community pharmacies throughout the area. This broad-based program is especially suited for those students who may later choose to pursue higher education in health care areas. Courses are taught by practicing registered pharmacists and pharmacy technicians and are offered during the day and evening.

WRITING PROFICIENCY REQUIREMENT:

Completion of ENGL 50A and ENGL 50B with grades of Credit or "C" or higher, or earning a score on the Writing Proficiency Test sufficient for placement in ENGL 52.

MATHEMATICS PROFICIENCY REQUIREMENTS:

This requirement can be met by one of the following options.

(1) Earn a score on the Basic Math Readiness test sufficient for placement in a course above the level of MATH 40 or
(2) Completion of MATH 40 with a grade of Credit or "C" or higher, or
(3) For other options see your counselor.

READING PROFICIENCY REQUIREMENTS

(1) The reading proficiency requirement is demonstrated by successfully completing the Reading Proficiency Test at the 12th grade level. The Reading Proficiency Test may be taken no more than once each semester.
(2) The reading proficiency requirement may be met by completing READ 54 with a grade of Credit or "C" or higher.
(3) For other options see your counselor

HEALTH

Employment in this field requires applicants to have good vision, hearing, and the ability to communicate orally. Applicants must present evidence of physical fitness and ability to perform tasks required of a pharmacy technician. Lab, x-ray and immunization records meeting the standards of the clinical site must be completed after acceptance into the program.

EXPENSES

Students are expected to purchase a student body card. Enrollment fees, project fees, uniforms, books, and supplies will cost approximately $800.00. Students are responsible for their own living accommodations, uniform laundry, and transportation to selected hospitals and clinics.

ATTENDANCE AND SCHOLARSHIP

All students are expected to observe the attendance requirements of the college and of the Pharmacy Technician Program. To remain in the program, the student must maintain a "C" or higher in each required course.

REQUIRED DOCUMENTATION

1. Submit proof of High School graduation or equivalent.
2. Submit an official transcript of all college work to the Admissions and Records Office and a copy to the Health Occupations Division.
3. Submit assessment test scores for English, Reading, and Math prior to enrolling in PHAR 62. If you have not taken these tests, proof of clearance by course work must appear on your college transcript. If you do not have course work or test scores to submit, apply to Cerritos College, obtain a student number, take the assessment test battery at the Assessment Center.
4. It is advised that you make an appointment with a counselor to review test scores and college work. To make an appointment with a counselor, call (562) 860-2451, extension 2231.
5. Prior to enrolling in PHAR 90 and PHAR 95, you must obtain a valid CPR card for Basic Life Support (Course Level "C" or C.P.R. for health care providers), offered through the Heart Association or the American Red Cross prior to the first clinical experience.

**The program has made every reasonable effort to determine that everything stated in the information sheet is accurate. Matters contained herein, are subject to change without notice by the administration of the department for reasons related to student enrollment, level of financial support or for any reason at the discretion of the Program. The Program further reserves the right to add, amend, or repeal any of the rules, regulations, policies and procedures, consistent with applicable laws.

CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
HO 56	Medication Calculations	1
PHAR 50	Pharmaceutics	1.5
PHAR 60	Pharmacy Introduction and Skills	2
PHAR 62	Pharmacy Operations I	.5
PHAR 63	Pharmacy Operations II	3
PHAR 64	Pharmacy Operations III	2
PHAR 81	Over-The-Counter Products	3
PHAR 83	Pharmacy Technician Pharmacology I	3
PHAR 85	Pharmacy Technician Pharmacology II	3
PHAR 90	Clinical Experience I	3
PHAR 95	Clinical Experience II	5
MA 161	Medical Terminology	3
or A&P 120	Introduction to Anatomy and Physiology	4
PHAR 173/174	Pharmacy Technician Occupational Work Experience	3-4
(Optional)		
BCOT 62	Microcomputer Keyboarding	1
or BCOT 135	Typewriting Speed/Control Building	1
TOTAL CERTIFICATE REQUIREMENTS		32/33

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Pharmacy Technician. For an A.A. Degree, a student must also take CIS 101, electives and general education to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment as a Pharmacy Technician in community or hospital pharmacy assisting registered pharmacist in the performance of assigned duties.

See Cerritos College Graduation Requirements.

PHILOSOPHY—570

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

		UNITS
PHIL 100	Introduction to Philosophy	3

California State University – Los Angeles

PHIL 106	Introduction to Logic	3
ENGL 103	Critical and Argumentative Writing	3

COMMON LOWER DIVISION PREPARATION FOR THE UNIVERSITY OF CALIFORNIA

University of California – Irvine

PHIL 201	Introduction to Twentieth Century Philosophy	3
AT LEAST ONE COURSE FROM EACH AREA, A-D:		
A)		
ENGL 100	Freshman Composition	3
ENGL 102	Freshman Composition and Literature	3
ENGL 103	Critical and Argumentative Writing	3
B)		
ENGL 230A	Introduction to American Literature	3
ENGL 230B	Introduction to American Literature	3
ENGL 246A	Survey of English Literature	3
ENGL 246B	Survey of English Literature	3
ENGL 248A	Masterpieces of World Literature	3
ENGL 248B	Masterpieces of World Literature	3
C)		
HIST 240	Western Civilization	3
HIST 241	Western Civilization	3
HIST 245	World Civilization from Antiquity to 1500	3
HIST 246	World Civilization from 1500 to the Present	3
D)		
PHIL 100	Introduction to Philosophy	3

ADDITIONAL REQUIREMENTS:

FREN 202	Intermediate French	4
or GERM 202	Intermediate German	(4)
or JAPN 202	Intermediate Japanese	(4)
or SPAN 202	Intermediate Spanish	(4)

University of California – Los Angeles

PHIL 102	Introduction to Ethics	3
PHIL 202	Critical Thinking and Argumentative Writing	3
or PHIL 106	Introduction to Logic	(3)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: The philosophy major is intended for students who plan to teach philosophy, for pre-professional students in such areas as theology, law, and as a foundation for graduate studies in the areas of library science, social science, diplomacy, theoretical physical science, and specialized historical studies.

See Cerritos College Graduation Requirements.
See State University General Education List.

PHOTOGRAPHY—150

ASSOCIATE IN ARTS DEGREE PROGRAM

MAJOR REQUIREMENTS (26 UNITS)		UNITS
DEPARTMENT REQUIREMENTS (18 UNITS)		
PHOT 100	Introductory Photography	3
PHOT 102	Intermediate Photography	3
PHOT 120	Introduction to Color Slide Photography	3
PHOT 200	Advanced Photography	3
PHOT 234	Portfolio Development	3
PHOT 240	Experimental Photography	3
SELECT 5 UNITS MINIMUM COURSE WORK FROM THE FOLLOWING:		
PHOT 124	Intermediate Color Photography	2
PHOT 220	Advanced Color Photography	3
PHOT 230	Portrait Photography	3
PHOT 242	Non-Silver Photography	3
PHOT 250	Contemporary Photographic Expression	3
PHOT 298	Directed Studies	1
or PHOT 299	Directed Studies	2
JOUR 130	Photo Journalism	3
SELECT 3 UNITS MINIMUM COURSE WORK FROM THE FOLLOWING:		
ART 120	Two-Dimensional Design	3
ART 184	Graphic Design I	3
JOUR 105	Newspaper Production	2
JOUR 160	College Magazine Production	1
BA 54	Retail Display	3
BA 121	Sales	3

TH 123	Stage Make-Up	2
TH 156	Video Production	3

NOTE: 35 mm camera and film are provided by each student. Laboratory fees are also required. Refer to the class schedules for specific course fees.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 units to include: (1) the above course requirements, (2) the Associate in Arts degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Photographer for newspapers, magazines; commercial, industrial, television advertising; scientific research; portrait studio; custom photo lab technician; medical photographic technician.

See Cerritos College Graduation Requirements.

PHOTOGRAPHY—155
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

FOR THE CALIFORNIA STATE UNIVERSITY		**UNITS**
PHOT 100	Introductory Photography	3

Neither the California State University nor the University of California offer a degree in Photography. Various photography options however are available at some California State University campuses.

California State University – Fullerton

Photo-Communications may be selected as a concentration in the Communications major and Creative Photography is an available concentration in the Art major.

California State University – Long Beach

Photo-Journalism may be selected as an option in the Journalism major and Art Photography is an available option in the Art major.

See the Fine Arts counselor for further information.

ASSOCIATE IN ARTS DEGREE:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

RECOMMENDED ELECTIVES: PHOT 102, 122, 160, 200, 234, 240,

JOUR 100, 101, and 130

CAREER OPPORTUNITIES: Photographer for newspapers; magazines; advertising; scientific research; graphic design; studio and photographic laboratories; teaching.

See Cerritos College Graduation Requirements.

See State University General Education List.

PHYSICAL EDUCATION
ATHLETIC TRAINER AIDE—411
CERTIFICATE OF ACHIEVEMENT

DEPARTMENT REQUIREMENTS:		**UNITS**
HED 110	Community First Aid and CPR	3
PE 107	Introduction to Athletic Training	3
PE 141	Fitness and Wellness	3
PE 254	Measurement and Interpretation of Fitness	3
PE 255	Programs and Principles of Conditioning	3
PE 260	Athletic Injury Assessment and Reconditioning	3
PE 261	Athletic Injury Taping, Bandaging & Immobilization	1
MA 161	Medical Terminology	3
A&P 120*	Introduction to Human Anatomy & Physiology	4
or A&P 130*	Human Anatomy & Physiology	5

*(A&P 200 & A&P 201 recommended for transfer students)

TOTAL CERTIFICATE UNITS 25/26

FITNESS SPECIALIST—401
CERTIFICATE OF ACHIEVEMENT

DEPARTMENT REQUIREMENTS:		**UNITS**
HED 110	Community First Aid and CPR	3
HED 200	Food For Fitness and the Athlete	3
PE 107	Introduction to Athletic Training	3
PE 141	Fitness and Wellness	3
PE 254	Measurement and Interpretation of Fitness	3
PE 255	Programs and Principles of Conditioning	3
A&P 120*	Introduction to Human Anatomy & Physiology	4
or A&P 130*	Human Anatomy & Physiology	5
BA 100	Fundamentals of Business	3

*(A&P 200 & A&P 201 recommended for transfer students)

TOTAL CERTIFICATE UNITS 25/26

PHYSICAL EDUCATION — 402
ASSOCIATE IN ARTS DEGREE

In order to qualify for an A.A. degree in Physical Education the following requirements must be met:

1) Completion of the A.A. degree general education and proficiency requirements;
2) Completion of a minimum of 60 degree applicable units;
3) Completion of at least 26 units of physical education coursework from the following;
   - a. Required Core Courses 17/23 Units
   - b. Required Activity Courses 6 Units
   - c. Required PE Elective Courses 3 Units

See Cerritos College Graduation Requirements.

REQUIRED CORE COURSES		**UNITS**
PE 100	Introduction to Physical Education and Sport	3
PE 107	Introduction to Athletic Training	3
PE 141	Fitness and Wellness	3
HED 110	First Aid and CPR	3
A&P 130	Human Anatomy and Physiology	5

or		
A&P 200	Human Anatomy	(5)
and		
A&P 201	Human Physiology	(5)

REQUIRED ACTIVITY COURSES (6 UNITS)

Activity courses must include at least 1 (one) unit from each of the following 5 (five) areas, for a total of 6 (six) units.

(1) Aerobic Fitness

PE 121	Adapted Cardiovascular Exercise	1
PE 131	Walking for Fitness	1
PE 132A	Low Impact Aerobics	1.5
PE 132B	Aerobic Activities	1.5
PE 133	Step Aerobics	1.5
PE 134	Water Aerobics	1
PE 143	Personal Fitness Program	1
PE 145	Basic Training and Physical Conditioning	1

(2) Fitness

PE 122	Adapted Strength Training	1
PE 130	Stretch and Relaxation	1
PE 135A	Circuit Weight Training, Beginning	1
PE 135B	Circuit Weight Training, Intermediate/ Advanced	2
PE 138	Yoga	1
PE 139	Pilates Conditioning	1
PE 146	Weight Management	1.5

(3) Aquatics

PE 123	Adapted Swimming	1
PE 150A	Swimming, Beginning	1
PE 150B	Swimming, Intermediate/Advanced	2
PE 170	Water Polo	2

(Participation in Intercollegiate Swimming or Water Polo will satisfy this requirement)

(4) Team Activities

PE 124	Wheelchair Activities	1
PE 171A	Softball	1
PE 171B	Softball, Intermediate/Advanced	2
PE 171C	Slow-Pitch Softball	1
PE 172A	Volleyball, Beginning	1
PE 172B	Volleyball, Intermediate/Advanced	2
PE 175A	Baseball, Beginning	1
PE 175B	Baseball, Intermediate/Advanced	2
PE 176A	Beginning Basketball	1
PE 176B	Basketball, Advanced	2
PE 177	Flag Football	1
PE 178	Football, Intermediate/Advanced	2
PE 179A	Soccer, Beginning	1
PE 179B	Soccer, Intermediate/Advanced	2

(Participation in Intercollegiate Athletics excluding swimming and water polo will fulfill this requirement)

(5) Individual Activities

PE 120	Sedentary Activities for Students with Disabilities	1
PE 151	Wrestling	1
PE 153A	Backpacking, Beginning	2
PE 153B	Backpacking, Advanced	2
PE 154A	Badminton, Beginning	1
PE 154B	Badminton, Intermediate/Advanced	2
PE 155A	Bowling, Beginning	1
PE 155B	Bowling, Intermediate/Advanced	1
PE 156A	Golf, Beginning	1
PE 156B	Golf, Intermediate/Advanced	2
PE 158A	Racquetball, Beginning	1
PE 158B	Racquetball, Intermediate/Advanced	2
PE 159A	Tennis, Beginning	1
PE 159B	Tennis, Intermediate/Advanced	2
PE 160	Personal Self Defense	1
PE 180	Introduction to Dance Movement	3
PE 181	Introduction to Dance Cultures of the World	2
PE 182A	Dance, Modern, Beginning	2
PE 182B	Dance, Modern, Intermediate	2
PE 186A	Beginning Ballet	2
PE 186B	Intermediate Ballet	2
PE 193	Introduction to Ballroom Dance	2
PE 195	Commercial Dance	2
PE 196	Latin Social Dance	2

PE ELECTIVE COURSES (3 Units Minimum)

PE 101A	Sports Officiating for Football	1
PE 101B	Sports Officiating for Men's and Women's Basketball	1
PE 102A	Sports Officiating for Baseball	1
PE 102B	Sports Officiating for Men's and Women's Track & Field	1
PE 105	Student Athlete in Society	2
PE 106	Women in Sports	3
PE 125	Water Safety Instructor (WSI)	2
PE 191	History of Dance	3
PE 192	Dance and Digital Technology	3
PE 253	Sports Psychology	3
PE 254	Measurement and Interpretation of Fitness	3
PE 255	Programs and Principles of Conditioning	3
PE 260	Athletic Injury Assessment and Reconditioning	2
PE 261	Athletic Injury Taping, Bandaging & Immobilization	1
HED 200	Food For Fitness And Physical Conditioning	3

RECOMMENDED GENERAL EDUCATION ELECTIVES

PSYC 101	General Introduction to Psychology	3
HED 100	Contemporary Health Problems	3
SOC 101	Introductory Sociology Principles	3

PHYSICAL EDUCATION—402 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

		UNITS
HED 110	Community First Aid and CPR	3
PE 100	Introduction to Physical Education and Sport	2

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills

A&P 130	Human Anatomy and Physiology	5
PE 100	Introduction to Physical Education	2

See a counselor for additional option requirements. Options available are Athletic Training Pre-Professional, Athletic Training certificate, Dance Concentration, Fitness Director and Teaching.

California State University – Fullerton

KINESIOLOGY MAJOR

Select six (6) units from the following:

PE 131	Walking for Fitness	1
PE 141	Fitness and Wellness	3
PE 143	Personal Fitness Program	1
PE 132A	Aerobic Activities (Low Impact)	2
PE 132B	Aerobic Activities II	2
PE 155A	Bowling, Beginning	1
PE 155B	Bowling, Intermediate/Advance	1
PE 156A	Golf: Beginning	1
PE 156B	Golf: Intermediate/Advanced	2

Additional options: Athletic Training Program, Health Science Bachelors of Science. See Cerritos College Physical Education Counselor for further information.

California State University – Long Beach

KINESIOLOGY MAJOR

A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
PE 141	Fitness and Wellness	3
PE 156A	Golf: Beginning	1
PE 156B	Golf: Intermediate/Advance	2
PE 159A	Tennis, Beginning	1
PE 172A	Volleyball, Beginning	1
PE 172B	Volleyball, Intermediate/Advanced	2
PE 179A	Soccer, Beginning	1
PE 179B	Soccer, Intermediate/Advanced	2
PSYC 101	General Introductory Psychology	3

California State University – Northridge

KINESIOLOGY MAJOR

BIOL 120	Introduction to Biological Science	4
A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
Additional Requirements:		
Exercise Science Option		
CHEM 110	Elementary Chemistry	4
PHYS 101	General Physics	4
Athletic Training Option		
HO 152	Normal and Therapeutic Nutrition	3
HED 100	Contemporary Health Problems	3

Options available: Athletic Training, Fitness, Adapted Physical Education, Elementary School Physical Education, and Secondary School Physical Education, and Bachelor of Science in Kinesiology.

Complete above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Coach, fitness director YMCA and YWCA, outdoor education programs, instructor in private and public camps, rehabilitation centers, teacher/athletic trainer, sports medicine clinics, sports education, community, county, state recreation departments, credential teacher (elementary or secondary).

See Cerritos College Graduation Requirements.
See State University General Education List.

PHYSICAL THERAPIST ASSISTANT PROGRAM—930 ASSOCIATE IN ARTS DEGREE

The Physical Therapist Assistant is a skilled technical health worker who performs physical therapy interventions under the direction of a Physical Therapist. This program is accredited by the Commission on Accreditation in Physical Therapy Education - American Physical Therapy Association. Successful completion of the Physical Therapist Assistant Program and Associate in Arts Degree qualifies students to take the State of California Licensing Examination for Physical Therapist Assistants.

LENGTH AND KIND OF PROGRAM

The program is four semesters in length. General education and Physical Therapist Assistant classes are scheduled on the college campus. Correlated clinical experiences begin the second semester and continue throughout the program. These experiences take place at selected hospitals and clinics in Los Angeles, Orange, Riverside, and San Bernardino Counties.

ADMISSION PROCEDURES AND REQUIREMENTS

1. Academic Requirements
   a. Acceptable scores on College Placement Tests for English and Mathematics and Reading clearance or deficiencies removed
   b. A&P 130 with a grade of "C" or higher
   c. All deficiencies in academic requirements must be removed. An overall Grade Point Average of 2.0 must be attained prior to admission to the Physical Therapist Assistant Program, and a grade of "C" or higher must be attained for each general education and required course.

Applicants who have not completed 1b and 1c will not be considered for admission.

2. Health
   a. Applicants must present evidence of physical fitness and ability to perform tasks required of a Physical Therapist Assistant. Lab, x-rays and immunization records meeting hospital standards must be completed after acceptance into the program.

SELECTION PROCEDURES

1. Academic Evaluation
   a. All required documents, including progress reports, transcripts, and work verification from Physical Therapist employer must be in the Health Occupations Division Office by April 15.
   b. No student whose college grade point average is below 2.0, or who has not cleared English, Math, or Reading deficiencies can be considered. These are considered minimum standards of academic preparation.
   c. Additional consideration will be given for work experience in the field of physical therapy or related areas, and for students who have completed additional medical or science related classes.

EXPENSES

Students are expected to purchase a student body card. Enrollment fees, project fees, uniforms, books, and supplies which will cost approximately $1000.

Students are responsible for their own living accommodations, uniform laundry, and transportation to selected hospitals and clinics.

ATTENDANCE AND SCHOLARSHIP

All students are expected to observe the attendance requirements of the College and of the Physical Therapist Assistant Program. To remain in the Program, the student must maintain a "C" or higher in each required and general education course. Lab coats are required in all hospital lab classes (PTA 126L, 236L, 246L).

PROCEDURE FOR APPLICATION

(To be completed in order as listed)

1. Complete application to the program. This can be obtained in either the Health Occupations Division (562) 860-2451, Ext. 2550, or Counseling Office, Ext. 2231. The application must be returned by April 15.
2. Submit two official transcripts of all college work. Submit one copy to the Health Occupations Division and one copy to the Admissions and Records Office.
3. Submit assessment test scores for English, Reading, and Math with your application by April 15. If you have not taken these tests, proof of clearance by course work must appear on your college transcript. If you do not have course work or test scores to submit, apply to Cerritos College, obtain a student number, take the assessment test battery at the Assessment Center and record your test date on your program application by April 15. Students are accepted only in the Fall semester.
4. It is advised that you make an appointment with a counselor to review test scores and college work. To make an appointment with a counselor, call (562) 860-2451, Ext. 2231.
5. As soon as all of the above material is received and reviewed, you will be notified of acceptance or non-acceptance after May 1. If you are completing admission requirements during the spring session, a "work-in-progress" report must be submitted to the Health Occupations Division at the end of the first four weeks of the course.
6. If you are accepted into the Physical Therapist Assistant Program, you must present a valid CPR card for Basic Life Support Course Level "C", offered through the Heart Association or the American Red Cross prior to the first hospital experience (PTA 126). Card must be valid throughout the program.

ASSOCIATE IN ARTS DEGREE

A total of 74 units including the following requirements must be completed to qualify for the A.A. Degree:

A&P 130	Human Anatomy and Physiology	5
ENG 100	Freshman Composition	4
MA 161	Medical Terminology	3
PSYC 101	General Introductory Psychology	3
SPCH 100	Oral Communication	3
or SPCH 130	Fundamentals of Speaking	(3)
Natural Sciences and/or Health Education		3 units
Two additional courses from the Social and Behavior Sciences		6 units
Humanities and Fine Arts		6 units

FIRST YEAR

First Semester

PTA 110	Introduction to Physical Therapy	4
PTA 120	Kinesiology	4

Second Semester

PTA 125	Pathology	3
PTA 126	Clinical Practicum I	4
PTA 127	Soft Tissue Interventions	2
PTA 128	Physical Therapy Aspects of Growth, Development, and Aging	3
PTA 235	Neurology	3

SECOND YEAR

First Semester

PTA 230	Therapeutic Exercise	4
PTA 233	Prosthetics and Orthotics for Allied Health Professionals	2
PTA 236	Clinical Practicum II	4

Second Semester

PTA 240	Activities of Daily Living	2
PTA 245	Advanced Modalities	3
PTA 246	Clinical Affiliation	4

See Cerritos College Graduation Requirements.

PHYSICS—635

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
PHYS 100	Elementary Physics	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

California State University - Dominguez Hills (General Physics Option)

CHEM 111	General Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytic Geometry and Calculus III	4

California State University - Long Beach

BIOL 120	Introduction to Biological Science	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytical Geometry and Calculus III	4

California State University - Fullerton

CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytic Geometry and Calculus III	4

California State University - Los Angeles

CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytic Geometry and Calculus III	4

California State Polytechnic University - Pomona

CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CIS 178	Programming in Fortran	3
or CIS 180	Programming in C/C++	3

MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytic Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4

University of California – Irvine

CIS 180	Programming in C/C++	3
or CIS 280	Object-Oriented Programming in C++	(3)
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytic Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4

RECOMMENDED COURSES:

CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5

See counselor for specific concentration requirements.

University of California - Los Angeles

CHEM 111	General Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	4
MATH 220	Analytic Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the common lower division requirements and (2) the Associate in Arts Degree general education requirements.

CAREER OPPORTUNITIES: After transfer to a four-year university and completion of the Bachelor's Degree Program, graduates qualify for graduate study and for a career as a professional Physicist, positions in an industrial laboratory and teaching of Physics and the Physical science.

See Cerritos College Graduation Requirements.
See State University General Education List.

PLASTICS MANUFACTURING TECHNOLOGY (PMT) SPECIALTY REQUIREMENTS

In order to obtain a Plastics Specialty, the student is encouraged to complete the required units for the Plastics Manufacturing Technology degree. The five to seven units for the specialty may come from the units completed toward the degree or from additional courses outlined below. Students with previous coursework may also be considered for certificates upon providing transcripts for review, and consent of the department.

Plastics Manufacturing Technology Specialty

PMT 63L	Specialty Plastics Lab	.5
PMT 68	Plastics Materials & Processes	2.5
PMT 100	Plastics I	2.5
		5.5

Inspection and Testing Specialty

PMT 63L	Specialty Plastics Lab	.5
PMT 100	Plastics I	2.5
MET 120	Nondestructive Testing	3
		6

Injection Molding Specialty

PMT 59	Injection Molding I	2.5
PMT 63L	Specialty Plastics Lab	.5
PMT 100	Plastics I	2.5
		5.5

Moldmaking Specialty

PMT 59	Injection Molding I	2.5
PMT 63L	Specialty Plastics Lab	.5
PMT 65	Moldmaking	3
		6

Fiberglass Specialty

PMT 61	Fiberglass I	2.5
PMT 63L	Specialty Plastics Lab	.5
PMT 67	Fiberglass II	2.5
		5.5

Composites Specialty

PMT 61	Fiberglass I	2.5
PMT 67	Fiberglass II	2.5
PMT 70	Composites Technology	2.5
		7.5

Fiberglass / Composite Repair Specialty

PMT 53	Composite Repair	3
PMT 61	Fiberglass I	2.5
PMT 67	Fiberglass II	2.5
		8

Tooling Specialty

PMT 63L	Specialty Plastics Lab	.5
PMT 72	Tooling for Plastics	2.5
PMT 221	Modelmaking	2.5
		5.5

PLASTICS / COMPOSITES MANUFACTURING TECHNOLOGY—871

CERTIFICATE OF ACHIEVEMENT PROGRAM

CORE		UNITS
PMT 100	Plastics I	2.5
TM 50	Technical Mathematics	3
BCOM 147	Business Communications	3
BCOM 148	Effective Business Presentations	3

COMPOSITES MANUFACTURING OPTION—872

PMT 61	Fiberglass I	2.5
PMT 63L	Specialty Plastics Lab	.5
PMT 67	Fiberglass II	2.5
PMT 68	Plastics Materials and Processes	2.5
PMT 70	Composites Technology	2.5
ENGT 16	Blueprint Reading for Machine Trades	2
Total Units (including CORE)		24

COMPOSITE INSPECTION OPTION—873

PMT 61	Fiberglass I	2.5
PMT 63L	Specialty Plastics Lab	.5

PMT 67	Fiberglass II	2.5
PMT 70	Composites Technology	2.5
MET 68	Plastics Materials and Processes	2.5
MET 120	Nondestructive Testing	3
Total Units (including CORE)		25

PLASTIC / COMPOSITE TOOL DESIGN OPTION—874

PMT 65	Moldmaking I	3
PMT 72	Tooling for Plastics	2.5
ENGT 138	Fundamentals of Computer Aided Drafting	4
ENGT 258	Design and Production Technology with AutoCad	4
ENGR 123	Descriptive Geometry	3
Total Units (including CORE)		28

PLASTICS MANUFACTURING OPTION—875

PMT 4	Plastics III	2.5
PMT 59	Injection Molding I	2.5
PMT 60	Extrusion	3
PMT 61	Fiberglass I	2.5
PMT 63L	Specialty Plastics Lab	.5
PMT 64	Plastics II	2.5
PMT 66	Hydraulics and Pneumatics	3
PMT 68	Plastics Materials and Processes	2.5
PMT 71	Plastics IV	2.5
PMT 72	Tooling for Plastics	2.5
Total Units (including CORE)		33

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include: (1) the above requirements for a specific Certificate of Achievement, (2) ENGT 16, (for Composite Manufacturing, Composite Inspection and Plastics Manufacturing Options Only), (3) the Associate of Arts Degree general education requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: PMT 98-99 (Directed Studies)

CAREER OPPORTUNITIES: Upon completion of the program, a student is prepared to work in areas of injection, compression and extrusion molding, mold laminating, plastic mold design and fabrication, as well as testing equipment set up, maintenance, and tooling.

See Cerritos College Graduation Requirements.

POLITICAL SCIENCE—770

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

FOR THE CALIFORNIA STATE UNIVERSITY		**UNITS**
POL 101	American Political Institutions	3
POL 220	Comparative Government	3

RECOMMENDED ELECTIVES IN PREPARATION FOR UPPER DIVISION WORK: ANTH 100, ECON 201 & 202, GEOG 102, HIST 201& 202, POL 210, PSYC 101, SOC 101.

University of California – Los Angeles

MATH 112	Elementary Statistics	4
POL 201	Introduction to Political Science and American Government	3
or POL 101	American Political Institutions	(3)
POL 220	Comparative Government	3
POL 210	International Relations	3

University of California – Irvine

CIS 182	JAVA Programming	3.5
CIS 280	Object-Oriented Programming in C++	3
MATH 170	Analytic Geometry and Calculus I	4
MATH 112	Elementary Statistics	4
or PSYC 210	Elementary Statistics	(4)

TWO COURSES FROM:

POL 201	Introduction to Political Science and American Government	3
POL 220	Comparative Government	3
POL 101	American Political Institutions	3
POL 210	International Relations	3
POL 230	Contemporary Political Issues: Middle East	3

One additional course from the Political Science courses above or in another Social Science, (See a counselor for choices).

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Diversified positions in government at the local, state, and federal levels, military, Foreign Service, private business and industry, upper division work leads into advanced degrees in law, journalism, public administration, international relations.

See Cerritos College Graduation Requirements.
See State University General Education List.

PRE-CHIROPRACTIC—650

CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree)

Admission to most chiropractic colleges is based primarily on the candidates' academic achievement in a college program. Each prospective candidate must have completed course work, which could transfer to an accredited four-year college. All specific prerequisite courses must be completed with at least a "C" grade, and the overall grade-point-average must be at least 2.5 on a 4.0 scale.

COMMON COURSE REQUIREMENTS FOR MOST CHIROPRACTIC

SCHOOLS:		**UNITS**
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
ENGL 100	Freshman Composition	4
ENGL 102	Freshman Composition and Literature	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4
PSYC 101	General Introductory	3
SPCH 100	Fundamentals of Speech	3

ADDITIONAL REQUIREMENTS FOR SPECIFIC INSTITUTIONS:

Cleveland Chiropractic College of Los Angeles
www.clevelandchiropractic.edu

Applicants must have completed a minimum of 90 semester units. Beginning Fall 2003, the 90 semester units must include 30 units of upper division coursework from a university. A minimum of 48 semester units must be the specified science and general education requirements. A minimum grade point average of 2.50 is required in the prerequisite course. Candidates with baccalaureate degrees receive preference for admission.

BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
Additional Social Sciences and Humanities		15

Southern California University of Health and Sciences
www.scuhs.edu

Formerly Los Angeles College of Chiropractic

Applicants must have completed a minimum of 90 semester units. A baccalaureate degree is preferred, although not required. A grade of "C" or higher in all science and general education prerequisite courses is obligatory. The minimum grade point average is 2.50.

A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
or BIOL 200	Principles of Biology	(5)
and BIOL 201	Principles of Biology	(5)
or MICRO 200	Principles of Microbiology	(5)
and ZOOL 120	Introduction to Animal Biology	(4)
Additional Social Sciences, Fine Arts and Humanities		15

Spanish language classes are strongly recommended and can apply towards humanities.

THE REQUIREMENTS FOR CHIROPRACTIC SCHOOLS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CAREER OPPORTUNITIES: Doctor of Chiropractic; are primary health care providers. They are educated to diagnose, care for the human body by chiropractic adjustment, nutrition, and other alternative medicine techniques, and consult with or refer to other health care providers.

PRE-DENTAL—651

CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree)

Admission to most schools of dentistry is based primarily on the candidates' academic achievement in a college program and performance in the Dental Admissions Test (DAT). Because most of the applicants being admitted to dental schools possess a bachelor's degree, students are advised to integrate the dental school requirements into a program that will lead to a bachelor's degree in a major of their choice.

COMMON COURSE REQUIREMENTS

FOR MOST DENTAL SCHOOLS		**UNITS**
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
ENGL 100	Freshman Composition	4
ENGL 102	Freshman Composition and Literature	3
PHYS 101	General Physics	4
or PHYS 201	Engineering Physics	(4)
PHYS 102	General Physics	4
or PHYS 202	Engineering Physics	(4)

Psychology 101, General Introductory Psychology: required by many dental schools.

MATHEMATICS: The amount of mathematics beyond trigonometry needed will be determined by the upper division course of study the student elects to pursue.

RECOMMENDED ELECTIVES COURSEWORK: Anatomy/Physiology/Human Biology, Microbiology, Histology, Biochemistry, Genetics, Embryology, Cellular & Molecular Biology, College Algebra/Calculus/Statistics, Business Management, Accounting/Economics, Technical Writing and Ceramics/Sculpture.

For information about specific dental school requirements, students are encouraged to consult "Admission Requirements of American Dental Schools," a catalog available from the American Association of Dental Schools, 1625 Massachusetts Ave., N.W. Washington, D.C. 20036 (Attn: Publications Assistant) or order from their website: www.aads.org.

For accurate programming and more detailed information concerning the California schools of dentistry, look up the dental school website:

Loma Linda University
www.llu.edu/llu.dentistry
University of California, Los Angeles
www.dent.ucla.edu
University of California, San Francisco
http://dentistry.ucsf.edu/
University of the Pacific, San Francisco Campus
www.dental.uop.edu
University of Southern California
www.usc.edu/hsc/dental

THE REQUIREMENTS FOR DENTAL SCHOOLS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CAREER OPPORTUNITIES: The dental profession offers a variety of career options – General Dentistry or one of eight recognized specialties: Dental Public Health, Endodontics, Oral Pathology, Oral Surgery, Orthodontics, Pedantic, Periodontics and Prosthodontics.

PRE-MEDICAL—652

CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree)

Admission to medical school is highly competitive. Admittance is usually based primarily on the candidate's academic achievement in a college program and performance on the Medical College Admission Test (MCAT). Educational philosophies and goals, specific undergraduate course requirements, academic commitment beyond required course work, application, essay, research, community work, volunteerism, and other qualifications for admission vary among the nation's medical schools. However, they all stress the importance of a strong foundation in the natural sciences (biology, chemistry and physics.), highly developed competence in English communication skills, both written and spoken; capacity for quantitative thinking, represented by mastery of mathematics, and the scientific method; a foundation for an ever-increasing insight into human behavior, thought and aspiration, through study of man and

his society, as revealed by a breadth of social sciences, fine arts and humanities. Knowledge of a modern foreign language, specifically Spanish is strongly recommended. Computer literacy is now very necessary for almost all medical schools. Many schools recommend computer science courses and require entering students to have a computer.

Medical schools do not require you to major in a particular field. It is possible to major in any one of a large number of disciplines, integrating the course requirements for medical school. In choosing an undergraduate major the student should give careful consideration to select a major area of study that interests them and that will provide a foundation necessary for the pursuit of an alternative career, if necessary. "Pre-Med" is not a major at the university for an undergraduate degree. While many successful applicants major in one of the natural sciences, a science major is NOT required for admission to medical school.

COMMON COURSE REQUIREMENTS

FOR MOST MEDICAL SCHOOLS		**UNITS**
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
BIOL 202	Molecular Biology/Genetics (highly recommended)	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 205	Quantitative Analysis (highly recommended)	4
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
ENGL 100	Freshman Composition	4
ENGL 102	Freshman Composition & Literature	3
PHYS 101	General Physics	4
or PHYS 201	Engineering Physics	(4)
PHYS 102	General Physics	4
or PHYS 202	Engineering Physics	(4)

AP/CLEP credit will not be accepted for completion of required courses.

Community college pre-med students who plan to transfer to a university need to complete the general education required of the transfer institution, complete the requirements of the undergraduate major and may complete all the courses required by the medical school.

MATHEMATICS: Trends in medical education require the medical student to be adequately trained in mathematics. Almost all schools recommend one year of mathematics. Since calculus is recommended in several medical schools, and in some instances required, it is advantageous to complete one year of calculus or at least one semester of calculus. The second semester course may be math statistics or computer science, depending on the specific medical school requirement. Your undergraduate major will help further define your choice of math requirements.

ELECTIVES: Additional science course work in biochemistry, cellular biology, genetics, molecular biology, quantitative analysis chemistry and upper division biological science courses is considered part of the academic commitment beyond the minimum required course work. Spanish is strongly recommended.

For more information concerning the above listed requirements at individual schools look up the specific medical school website. The following are ten from a multitude of medical school websites:

Harvard Medical School
www.hms.harvard.edu
Johns Hopkins School of Medicine
www.hopkinsmedicine.org
Loma Linda University School of Medicine
www.llu.edu/llu/medicine
Stanford University School of Medicine
www.med.stanford.edu
U.C. Davis School of Medicine
www-med.ucdavis.edu
U.C. Irvine College of Medicine
www.med.uci.edu
U.C. Los Angeles Geffen School of Medicine
www.medstudent.ucla.edu
U.C. San Diego School of Medicine
http://medicine.ucsd.edu
U.C. San Francisco School of Medicine
www.som.ucsf.edu
U.S.C. Keck School of Medicine
www.usc.edu/schools/medicine

For further programming and more detailed information about specific medical school programs and requirements you are encouraged to consult The Medical School Admission Requirements (MSAR), published annually by the Association of American Medical Colleges. It is an excellent resource book to help students approach their goals realistically. Each medical school's specific requirements are detailed in the MSAR. Copies are $25.00 and may be purchased via the Association of American Medical Colleges (AAMC) web site: www.aamc.org. Another recommended web site you may want to consider is The Princeton Online Review (www.review.com/medical/) which provides comprehensive information for researching the complexities of medical school admissions.

THE REQUIREMENTS FOR MEDICAL SCHOOL ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CAREER OPPORTUNITIES: A career in medicine offers security, mobility, and flexibility. There is Foundation Medicine, General Practice, Group Practice, Government Service, and the Military. There are varied specialties: anesthesiology, allergy, dermatology, endocrinology, immunology, internal medicine, forensic science, obstetrics/gynecology, oncology, ophthalmology, otolaryngology, pediatrics, psychiatry, radiology, sports medicine, surgery and urology.

PRE-OPTOMETRY—648

CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree)

Admission to school of optometry offering the Doctor of Optometry is competitive. College grades (GPA) and the Optometry Admission Test (OAT) scores are used in preliminary screening. The OAT tests the following: biology, chemistry, organic chemistry, mathematical ability, physics, writing and reading comprehension. The test bulletin describes the test in detail, application procedures, and test dates. A copy of this bulletin can be obtained by writing to the Optometry Admission Testing Program, 211 E. Chicago Ave., Chicago, IL. 60611. Another booklet of interest to applicants is "Optometry: A Career with Vision", giving descriptions and comparisons of individual school programs, entering class profiles, costs, etc. This booklet may be obtained at no cost, by writing the American Optometric Association,

243 N. Lindbergh Blvd., St. Louis, MO 63141. Because admission has become increasingly more difficult, having completed the equivalent of a bachelor's degree is now required in California Schools of Optometry. The bachelor's degree may be in any major of the student's choice. Finally, a volunteer experience with an optometrist is highly appropriate in your preparation for optometry school. First, as a prospective optometry professional, you gain valuable insight into your decision whether optometry is the career path for you. Second, you develop the opportunity to receive a letter of support from an optometry professional, a vital element of your application.

COMMON SCHOOL OF OPTOMETRY COURSE REQUIREMENTS		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
ENGL 100	Freshman Composition	4
ENGL 102	Freshman Composition & Literature	3
MATH 112	Mathematical Statistics	3
MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological and Social Sciences	4
MICR 200	Principles & Applications of Microbiology	5
PHYS 101	General Physics	4
PHYS 102	General Physics	4
PSYC 101	General Introductory Psychology	3

ADDITIONAL REQUIREMENTS FOR SPECIFIC SCHOOLS OF OPTOMETRY:

Southern California College of Optometry – Fullerton
www.scco.edu

PSYC 150	Personal & Social Adjustment	3
or PSYC 251	Developmental Psychology	(3)
or PSYC 261	Social Psychology	(3)
or PSYC 271	Abnormal Psychology	(3)

Besides the bachelor's degree and the Optometry Admission Test results, all applications must submit three letters of recommendation from non-relatives. Your work within the community, student government, or other service organizations is considered to be important and should be included in your application. Volunteer experience with an optometrist is highly recommended in your preparation for optometry school. For the academic year Fall 2002/Spring 2003, ninety-eight students were admitted from an applicant pool of three hundred and fifty. The average G.P.A. of the ninety-eight students admitted was 3.33 G.P.A. The OAT scores ranged from 322 – 341.

University of California – Berkeley
http: / / spectacle.berkeley.edu

A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
BIOL 202	Molecular Biology/Genetics	4
CHEM 212	Organic Chemistry	5
MATH 190	Analytic Geometry	4

Biochemistry is required as of Fall 2003/Spring 2004. It is taught at most universities, but not available at neither Cerritos Community College nor at most community colleges.

ADDITIONAL COURSES RECOMMENDED for application to the School of Optometry: Genetics, Physiology of the Aging Process, Cell Biology of the Eye, Mechanisms of Ocular Disease, Molecular & Cell Biology, and Integrative Biology. These courses are found at universities and tend to be upper division coursework.

Besides the additional science classes, the grade point average is extremely important. This last academic year, Fall 2002/Spring 2003 there were two hundred and ninety-one applicants, of which sixty students were admitted with an average G.P.A. of 3.31. The average OAT score was 351. In addition to the academic requirements, professional letters of recommendation are critical to the U.C. Berkeley School of Optometry application process.

THE REQUIREMENTS FOR SCHOOLS OF OPTOMETRY ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CAREER OPPORTUNITIES: An Optometrist or Doctor of Optometry (O.D) are primary health care providers who are specifically trained and state licensed to examine, diagnose, manage, and treat conditions and diseases of the human eye and visual system. They prescribe treatment such as corrective lenses, contact lenses, or vision therapy. Job opportunities are expanding rapidly.

PRE-PHARMACY—649

CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree)

Admission to schools of pharmacy is highly competitive. Schools of Pharmacy offering the Doctor of Pharmacy generally require the completion of a minimum of 60 semester units of pre-pharmacy coursework. Applicants who have received a baccalaureate degree will be considered more favorably than applicants who have fulfilled only minimum requirements. A solid understanding of the fundamental sciences is essential for the study of the pharmaceutical and biochemical sciences. A discipline in the natural sciences is often the popular major selected. However, an appropriate major for the student should be selected that could lead to an alternate career, if necessary.

COMMON COURSE REQUIREMENTS FOR MOST PHARMACY SCHOOLS		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
ENGL 100	Freshman Composition	4
ENGL 102	Freshman Composition & Literature	3
MATH 170	Analytic Geometry and Calculus I	4

ADDITIONAL REQUIREMENTS FOR SPECIFIC PHARMACY SCHOOLS

Loma Linda University – School of Pharmacy
www.llu.edu / llu / sps

Preferably, applicants will have successfully completed a baccalaureate degree in chemistry, biology, physics, or a related scientific field. The minimum requirement for acceptance without a BS degree is completion of the 72 semester units of a pre-pharmacy program of study. An introductory computer class and a speech communication class are required along with the following general education:

Humanities 12 units

Fine Arts, literature, philosophy, religion, ethics, foreign language, preferably Spanish, cultural diversity, performing arts or visual arts

Social Sciences/Behavioral Sciences 12 units

Include one semester of economics and one semester of psychology. The remaining units can be from sociology, anthropology, political science, geography or cultural diversity.

University of California, San Diego – School of Pharmacy
www.pharmacy.ucsd.edu

It is highly recommended that students complete the requirements for a bachelor's degree. The absolute, minimum requirement is 63 semester units taken at an accredited college or university in the United States and completion of the prerequisites for this school. Students who have only completed the minimum coursework and who do not obtain a bachelor's degree may be at a competitive disadvantage in the application process. There were 480 applications received of which 80% had a bachelor's degree. Twenty-five students were admitted to the Charter Class of 2002. The average overall G.P.A. of the students admitted was 3.51.

ECON 101	U.S. & Global Economy	3
HUMANITIES AND FINE ARTS: any two additional courses		3-3
MATH 190	Analytic Geometry and Calculus II	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PSYC 101	General Introductory Psychology	3
or SOC 101	Introductory Sociology Principles	(3)
or ANTH 100	Cultural Anthropology	(3)
SPCH 130	Fundamentals of Public Speaking	3

University of California, San Francisco – School of Pharmacy
http: / / pharmacy.ucsf.edu

The minimum requirement is 62 semester units. Although this is the absolute minimum requirement, about 95% of the students accepted to U.C.S.F. PharmD program have completed a bachelors degree – usually in biology, biochemistry, or chemistry. The average grade point average of all accepted students is about 3.50. Each year, less than about 5% of admitted students enter directly from a California Community College.

A&P 201	Human Physiology	5
BIOL 202	Molecular Biology/Genetics	5
CHEM 205	Quantitative Analysis Chemistry	4
ECON 101	U.S. & Global Economy	3
MATH 190	Analytic Geometry and Calculus II	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PSYC 101	General Introductory Psychology	3
or SOC 101	Introductory Sociology Principles	(3)
or ANTH 100	Cultural Anthropology	(3)
SPCH 130	Fundamentals of Public Speaking	3

University of Pacific
www.uop.edu

Although a bachelor's degree is not required, a degree can make an applicant more admissible, and in recent years a strong majority of the successful applicants have had degrees. There is no absolute G.P.A. cutoff. Admission is competitive and is based on a number of factors in addition to G.P.A. including science grades, recommendations, essay, interview results, and demonstration of your ability to succeed in 17 units or more per semester. Competition can vary from year to year depending upon the size and strength of the applicant pool. The average G.P.A. over the past four years has ranged from a 3.1 to 3.4.

ECON 101	U.S. & Global Economy	3
or ECON 201	Principles of Macroeconomics	(3)
MATH 116	Calculus for Managerial and Biological Sciences	4
or MATH 170	Analytical Geometry and Calculus	(4)
MICR 200	Principles & Applications of Microbiology	5
PSYC 101	General Introductory Psychology	3
or PSYC 271	Abnormal Psychology	(3)
SPCH 130	Fundamentals of Speaking	3

Students who have not completed a US Bachelor's degree must complete these following categories:

International or Intercultural Studies (one course) from ANTH 100, GEOG 102, 105, HIST 230, 245, SPCH 110, or WS 102.

Fundamental Human Concerns (one course) from ENGL 221A, 221B, HIST 241, 242, PHIL 100, or 102.

Practice and Perspective in the Arts (one course) from ART 100, 101, 102, 103, 106, 107, HUM 100, MUS 100, 102, 104 or 105.

University of Southern California
www.pharmacy.usc.edu

Approximately 90 semester units are required. A baccalaureate degree is recommended. Generally a G.P.A. above 3.0 is required. A lower G.P.A. may be considered if grades in mathematics and science are strong. The school requires four years of pharmacy study, which leads to the Doctor of Pharmacy.

ECON 201	Principles of Macroeconomics	3
HUMANITIES/FINE ARTS: Two courses		3-3
MATH 112	Elementary Statistics	4
MICR 200	Principles & Applications of Microbiology	5
PHYS 101	General Physics	4
PHYS 102	General Physics	4
PSYC 101	General Introductory Psychology	3
SOCIAL/BEHAVIORAL SCIENCE: Two Additional courses		3-3
SPCH 100	Fundamentals of Oral Communication	3

The following required courses are not offered at Cerritos College, but must be taken at another college or university: Molecular Biology, Biochemistry, and Mammalian Physiology.

RECOMMENDED COURSE: Any Computer Science class

Western University of Health Sciences, College of Pharmacy
Formerly known as College of Osteopathic Medicine of the Pacific
www.westernu.edu

Minimum of 60 semester units is required. Complete prerequisites with a grade of "C" or better. Have a minimum cumulative and science grade point average of 2.5. Submit an application by March 1 of the year prior to admission. Participate in an admissions interview and assessment of written and verbal communication skills. If most of student's college education was completed in a non-English-speaking country, the student must take the TOEFL exam and score a minimum of 550.

A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
MICR 200	Principles & Applications Microbiology	5
SPCH 100	Fundamentals of Oral Communication	3

Besides the required courses listed the student must have at least 20 additional units from natural sciences, humanities/fine arts, behavioral and social sciences.

THE REQUIREMENTS FOR PHARMACY SCHOOLS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CAREER OPPORTUNITIES: Changes in health care delivery are giving the role of pharmacist a new dimension: significant responsibility as a member of the health team with direct patient care. hospital pharmacists work on educating patients on safe use of drugs, advising prescribers about the appropriate dosing and following patient's response to usage. Career advancement exists in administration and research. In addition to dispensing medications, community pharmacists guide patients in non-prescription drugs and being alert to adverse pharmacies. Industrial Pharmacists may work in research and development including the formulation, evaluation, packaging and quality control of drugs. Some pharmacists are employed by governmental agencies such as narcotic divisions, food and drug evaluation and regulation, and public health.

PRE-PHYSICAL THERAPY—665

CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree)

California State University – Long Beach

CSULB offers a Master's of Physical Therapy degree only. Applicants must have a BS/BA degree in a related filed in order to apply. Also, strong preparation in Biology, Chemistry, Physics, Anatomy and Physiology is recommended.

California State University – Northridge

The Physical Therapy program at CSUN leads to a Master's in Physical Therapy degree. Both graduates and undergraduates are admitted. Students accepted without a bachelors degree receive a BS in Health Science. At that time they must apply and be accepted by the Graduate School. This is an impacted program therefore enrollment is competitive and restricted to residents of California.

APPLICANTS WITHOUT A BACHELORS DEGREE MUST COMPLETE THE FOLLOWING:		UNITS
BIOL 120	Introduction to Biological Science	4
A & P 200	Human Anatomy	5
A & P 201	Human Physiology	5
CHEM 110	Elementary Chemistry	4
CIS 101	Introduction to Information Systems	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4
PSYC 101	General Introductory Psychology	3

In addition to the above course work there are several other Health Science courses and other general requirements that must be taken at CSUN before applying to the program. General education requirements for the CSU must also be met.

California State University – Fresno

CSU Fresno offers Physical Therapy as a Master's Program only. Applicants must have a BS/BA degree in a related field in order to apply.

Application for admission to the department of Physical Therapy must be made well in advance to assure entrance after the lower division requirements have been made.

CAREER OPPORTUNITIES: Physical therapists help persons with various diseases or injuries to overcome their disabilities. They are members of a rehabilitation team, which is directed by a physician. Although qualified physical therapists may treat many types of patients, some specialize in caring for children or for patients with arthritis, amputations or paralysis. Successful completion of a Bachelor or Master's Degree qualifies one to take the State of California examination to practice as a Physical Therapist.

See State University Colleges General Education List.

PRE-VETERINARY—653

CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree)

COMMON COURSE REQUIREMENTS FOR MOST VETERINARY SCHOOLS		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 112	Statistics	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4

University of California, Davis – School of Veterinary Medicine
www.vetmed.ucdavis.edu

Students are required to complete a minimum of 72 semester units. This coursework must include 21 units of general education classes besides the prerequisite science classes. All of the required science courses must be completed at the time of application. The majority of students entering the school have completed 3 or more years of pre-professional coursework or possess a bachelor's degree. An applicant may study in any major provided the prerequisite courses are taken. The life/health sciences: biology, animal science, zoology, and chemistry are the most common and popular majors. Most successful applicants have their coursework with a grade point average of 3.5 – 4.0. Admission is very competitive and grades are 30% in the evaluation process. Scores from the Graduate Record Examination (GRE) also weigh 30%. Combined, the school believes they are the best predictors of how successful an applicant will be in completing the veterinary curriculum. Substantial experience with animals, which should include working or volunteer experience with veterinarians, is required. California residents are given priority in the admissions process.

ENGL 100	Freshman Composition	4
ENGLISH	(Any two additional classes)	3-3
HUMANITIES/FINE ARTS (Any two additional classes)		3-3
SOCIAL/BEHAVIORAL SCIENCES (Any two additional classes)		3-3

Western University of Health Sciences – College of Veterinary Medicine
www.westernu.edu

The College of Veterinary Medicine at Western University of Health Sciences was recently founded on August 8, 1998. The college anticipates admitting its charter class in the Fall of 2003. Eventual class size is projected to be 77 students. Annual tuition will be approx-

imately $28,880. All applicants must take either the Medical College Admissions Test (MCAT) or the General Graduate Record Examination (GRE). Volunteer or paid annual experiences requirements consist of no less than 500 hours in the following: animal medical environment/veterinary practice, commercial animal production, regulatory animal control, animal entertainment and or research environment. There is no grade point average cut off established as of yet. All of the requirements posted are tentative, pending the establishment of the Faculty Admissions Committee. They do not expect major deviations from the following criteria.

CIS 101	Introduction to Computer Information Systems	3
ECON 201	Principles of Macroeconomics	3
ENGL 100	Freshman Composition	4
ENGL 155	Technical Writing	3
HO 152	Normal &Therapeutic Nutrition	3
HUMANITIES (At least one course)		3
MICR 200	Principles & Applications of Microbiology	5
PSYC 101	General Introductory Psychology	3
SOCIAL SCIENCES (At least one course)		
SPCH 100	Fundamentals of Oral Communication	3

The following required courses are not offered at Cerritos College, but must be taken at another college or university: Biochemistry and Genetics.

THE REQUIREMENTS FOR VETERINARY SCHOOLS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CAREER OPPORTUNITIES: Veterinarians guard the public health by controlling diseases that are transmittable form animals to man. They inspect meat, poultry, dairies, and imported animals. In small animal practice they help to maintain the health of pets such as dogs, cats, birds and monkeys. They treat animals in hospitals, clinics, farms, ranches, and zoos. Teaching opportunities are available at the college level. Manufacturers of drugs and biological products such as vaccines and animal feeds, employ veterinarians. Some veterinarians serve in government positions designed as preventative medicine programs. Practice specialties include research, teaching, animal breeding and Federal & State Animal Health Programs.

PSYCHOLOGY—750

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND THE UNIVERSITY OF CALIFORNIA

		UNITS
PSYC 101	General Introductory Psychology	3

ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Long Beach

MATH 112	Elementary Statistics	4
or PSYC 210	Elementary Statistics	4
PSYC 220	Research Methods	4
PSYC 241	Introduction to Psychobiology	3

California State University – Fullerton

No course may be counted to satisfy both major requirements and General Education requirements (e.g. Psych 101 cannot be used to satisfy Social Sciences requirement). If Psych 210 is used for the major, Math 112 is suggested for the general education requirement.

PSYC 210	Elementary Statistics	4
PSYC 220	Research Methods	4

California State University – Los Angeles

University Requirement: ENGL 103

PSYC 241	Introduction to Psychobiology	3

University of California – Los Angeles

ANTH 115	Physical Anthropology	3
A&P 120	Introduction to Human Anatomy and Physiology	4
or BIOL 120	Introduction to Biological Science	(4)
or BIOL 200	Principles of Biology	(4)
CHEM 100	Introductory Chemistry	4
or CHEM 110	Elementary Chemistry	(4)
or CHEM 111	General Chemistry	(5)
or H.S. CHEM completed with a "C" or better		
MATH 112	Elementary Statistics	(4)
or MATH 115	Finite Mathematics	(4)
or PSYC 210	Elementary Statistics	(4)
or CIS 280	Object-Orientated Programming in C++	(3)
or MATH 170	Analytic Geometry and Calculus 1	(4)
PHIL 100	Introduction to Psychology	3
or PHIL 102	Introduction to Ethics	(3)
or PHIL 106	Introduction to Logic	(3)
or PHIL 202	Critical Thinking and Argumentative Writing	(3)
PHYS 100	Elementary Physics	3
or PHYS 101	General Physics	(4)
or PHYS 201	Engineering Physics	(4)

University of California – Irvine

MATH 170	Analytic Geometry & Calculus I	4
and MATH 112	Elementary Statistics	4
or PSYC 210	Elementary Statistics	(4)
PSYC 241	Introduction to Psychobiology	3
PSYC 261	Social Psychology	3
or PSYC 271	Abnormal Psychology	(3)
One Course from:		
PSYC 150	Personal and Social Adjustment	3
or PSYC 251	Developmental Psychology	(3)
or PSYC 261	Social Psychology	(3)
or PSYC 271	Abnormal Psychology	(3)
Two of the following:		
ANTH 100	Cultural Anthropology	3
or ANTH 115	Physical Anthropology	(3)
CIS 280	Object-Oriented Programming in C++	3
and CIS 182	JAVA Programming	3.5
ECON 101	US & Global Economy	3
SOC 101	Introductory Sociology Principles	3

University of California – Riverside

Complete one course: Math, Statistics or Computer Science

BIOL 201	Principles of Biology	5
BIOL 120	Introduction to Biological Science	4
or BIOL 200	Principles of Biology	(5)
or BOT 120	Introduction to Plant Science	(4)
and ZOOL 120	Introduction to Animal Biology	(4)
CHEM 100	Introductory Chemistry	4
or CHEM 111	General Chemistry	(5)
or CHEM 112	General Chemistry	(5)
or PHYS 201	Engineering Physics	4
or PHYS 202	Engineering Physics	(4)

or ASTR 101	Elementary Astronomy	(3)

Plus two additional courses from above (Biology, Chemistry, or Physics)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Graduate work is extremely important in Psychology. Those holding M.A., or Ph.D. in Psychology may find employment in teaching, private practice, research, health, and welfare programs. Persons without graduate degrees will find employment opportunities limited. See a counselor for further information.

See Cerritos College Graduation Requirements.
See California State University General Education List.

RECREATION—425
TRANSFER PROGRAM

California State University – Dominguez Hills

CSUDH offers a B.A. in Recreation and Leisure Studies with an option in either General Recreation Administration or Therapeutic Recreation. The 12 units of required lower division recreation courses can be completed there.

California State University – Long Beach

CSULB offers a B.A. in Recreation and Leisure Studies. The six units of required lower division recreation courses can be completed there.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 units to include: (1) A minimum of 18 units of Health, Physical Education and Recreation courses including above requirements, (2) AA Degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Positions of leadership, supervision, administration in public, private, or voluntary youth and adult recreation or leisure services; in corrective or rehabilitative institutions; in industrial and medical recreation; armed forces recreation.

See Cerritos College Graduation Requirements.

SIGN LANGUAGE
VERIFICATION OF COMPLETION

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
SL 101	Beginning American Sign Language	3
SL 102	Intermediate American Sign Language	3
SL 201	Advanced American Sign Language	3
SPCH 120	Fundamentals of Interpersonal Communication	3
SPCH 271	Voice and Articulation	3
TOTAL VERIFICATION REQUIREMENTS:		12

Although many of these courses are transferable, this verification of completion is nontransferable. Please see counselors or the respective department for additional alternatives.

SOCIAL WELFARE—761
TRANSFER PROGRAM

(The following curriculum does not lead to an Associate in Arts Degree. To earn an A.A. degree, see Sociology—760 or Psychology—750 in the catalog for the major requirements.)

LOWER DIVISION PREPARATION FOR SPECIFIC TRANSFER INSTITUTIONS

CSU Long Beach and CSU Los Angeles offer the Bachelor of Arts in Social Work.

California State University – Long Beach:		UNITS
A&P 120	Introduction to Human Anatomy & Physiology	4
or A&P 130	Human Anatomy and Physiology	(5)
ANTH 100	Cultural Anthropology	3
PSYC 101	General Introductory Psychology	3
PSYC 210	Elementary Statistics	4
or MATH 112	Elementary Statistics	(4)
SOC 101	Introductory Sociology Principles	3

Additional coursework that will be considered advantageous; Any Ethnic Studies, Women Studies, and Gerontology.

California State University – Los Angeles:		
PSYC 101	General Introductory Psychology	3
or SOC 101	Introductory Sociology Principles	(3)
ENGL 103	Critical and Argumentative Writing	3

CAREER OPPORTUNITIES: Social Workers are employed in varied settings, including the major societal institutions; health and mental health care, child welfare, family services, government, education, justice, aging services, recreation, labor and industry and religion. They work in many job classifications: direct service, community organization supervision, consultation, management and administration, education and training, policy analysis and research.

See State University General Education List

SOCIOLOGY—760
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
PSYC 210	Elementary Statistics	4
or MATH 112	Math Statistics	(4)
SOC 101	Introductory Sociology Principles	3

LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Long Beach

ANTH 100	Cultural Anthropology	3
SOC 201	Social Problems	3

Recommended Electives

ANTH 100	Cultural Anthropology	3
PSYC 101	General Introductory Psychology	3
SOC 215	Sociology of Cultural Diversity: Challenge and Change	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Employment opportunities for those holding the BA will be somewhat limited, although placement in Departments of Public Welfare and Probation and Parole are occasionally available. Persons with graduate degrees – M.A., Ph.D. – will qualify for teaching and research positions.

See Cerritos College Graduation Requirements.
See State University General Education List.

SPANISH—554
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
SPAN 101	Elementary Spanish	5
SPAN 102	Elementary Spanish	5
SPAN 201	Intermediate Spanish	5
SPAN 202	Intermediate Spanish	4

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State Polytechnic University – Pomona

SPAN 111 and SPAN 112 are also accepted in place of the common lower division preparation courses of SPAN 101 and SPAN 102.

California State University – Dominguez Hills

SPAN 111 or SPAN 112 are also accepted in place of the common lower division preparation course of SPAN 202. No additional requirements other than the common lower division preparation.

California State University – Fullerton

SPAN 111 is also accepted in place of the common lower division preparation course of SPAN 101 and SPAN 112 is also accepted in place of the common lower division preparation course of SPAN 102.

SPAN 213	Living Spanish Grammar and Written Communication	2
or SPAN 214	Living Spanish Grammar and Written Communication	(2)
SPAN 281	Beginning Conversational Spanish	3
or SPAN 282	Intermediate Conversational Spanish	(3)
or SPAN 283	Advanced Conversational Spanish	(3)

California State University – Long Beach

One year of a second foreign language at the college level, or equivalent.

California State University – Los Angeles

No additional requirements other than the common lower division preparation. As an alternative to completing the common lower division preparation courses listed above, students can demonstrate equivalent language competency on the department's placement exam.

University of California – Irvine

SPAN 101	Elementary Spanish	5
and SPAN 102	Elementary Spanish	5
SPAN 201	Intermediate Spanish	5
and SPAN 202	Intermediate Spanish	4

At least one course is required from four different areas (writing, literature, history, and philosophy). An approved list of courses is available from ASSIST. Please consult a counselor, if necessary, for these additional classes.

University of California – Riverside

SPAN 101	Elementary Spanish	5
and SPAN 102	Elementary Spanish	5
SPAN 201	Intermediate Spanish	5
and SPAN 202	Intermediate Spanish	4

Note: Students may either take courses listed above or demonstrate equivalent proficiency (as measured by a placement exam at UCR).

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

(1) Meet the above requirements as listed for a state university, (2) complete the AA Degree general education requirements, and (3) take electives to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Overseas personnel in American corporations, airline hostess, travel agency personnel, government positions abroad, teaching, librarian, interpreter, and translator.

See Cerritos College Graduation Requirements.
See State University General Education List.

SPEECH COMMUNICATION
VERIFICATION OF COMPLETION

A verification of completion shall be awarded to the student who completes with a grade of "C" or higher the following courses:

DIVISION / DEPARTMENT REQUIREMENTS		UNITS
SPCH 110	Intercultural Communication	3
SPCH 125	Organizational Communication	3
SPCH 120	Fundamentals of Interpersonal Communication	3
SPCH 130	Fundamentals of Speaking	3
SPCH 132	Fundamentals of Small Group Communication	3
TOTAL VERIFICATION REQUIREMENTS		15

SPEECH—540
TRANSFER PROGRAM

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

		UNITS
California State University – Long Beach		
	COMMUNICATIONS EMPHASIS	
SPCH 100	Fundamentals of Oral Communication	3
or SPCH 120	Fundamentals of Interpersonal Communication	(3)
SPCH 130	Fundamentals of Speaking	3
SPCH 132	Fundamentals of Small Group Communication	3
SPCH 235	Fundamentals of Argumentation and Persuasion	3

SPCH 239	Forensics Workshop	2
SPCH 271	Voice and Articulation	3

California State University – Fullerton

SPCH 100	Fundamentals of Oral Communication	3
SPCH 130	Fundamentals of Speaking	3
SPCH 235	Argumentation and Persuasion	3
	For Secondary school teaching emphasis ADD:	
SPCH 239	Forensics Workshop	2

California State University – Los Angeles

SPCH 140	Oral Interpretation	3
or SPCH 132	Small Group Communication	(3)
SPCH 235	Argumentation and Persuasion	3
SPCH 239	Forensics Workshop	2

RECOMMENDED ELECTIVES: Economics, Sociology, and Political Science.

NOTE: It is strongly recommended that students with high school forensic experience take Speech 235 during their freshman year.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Public relations, Sales, Teaching, Law, Politics, Administration, Communications, Consulting, and Broadcasting.

See Cerritos College Graduation Requirements.
See State University General Education List.

SPEECH-LANGUAGE PATHOLOGY AIDE—941
CERTIFICATE OF ACHIEVEMENT

A Certificate of Achievement shall be awarded to the student who completes with a grade of "C" or better the following courses:

CD 110	Child Development	3
CD 138	Observation & Assessment of Childhood Behavior	1.5
CDSE 50	Survey of Special Education	3
SLP 100	Introduction to Speech and Language Pathology	3
SLP 110	Normal Communication, Disorders and Differences	4
SLP 125	Childhood Disorders and Treatment	5
TOTAL VERIFICATION REQUIREMENTS		19.5

CAREER OPPORTUNITIES: Upon completion of the courses, employment is available in educational settings where the aide will be supervised by a licensed Speech-Language Pathologist.

SPEECH-LANGUAGE PATHOLOGY ASSISTANT—940

The Speech-Language Pathology Assistant curriculum prepares graduates to work under the supervision of a licensed Speech-Language Pathologist, who evaluates, diagnoses, and treats individuals with various communication disorders. The program provides a concentration of speech-language classes, related courses, and supervised field experiences that will prepare students to assist speech-language pathologists in treating disorders related to articulation and phonology, anomalies and hearing. In addition, students will be trained in the use of alternative and augmentative communication.

Courses provide instruction in methods of screening for speech, language, and hearing disorders and in following written protocols designed to remediate individual communication problems. Students are placed in supervised field experiences in school, hospital, and rehabilitation settings to work with different types and ages of clients.

Graduates will be eligible to apply for licensure with the California Speech-Language Pathology and Audiology Board. Employment opportunities exist in health care and education settings where the Speech-Language Pathology Assistant must be supervised by a licensed Speech-Language Pathologist.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 degree applicable units including the following required courses completed with a grade of "C" or better must be completed to qualify for the A.A. Degree.

REQUIRED COURSES:		UNITS
First Year		
First Semester		
CD 110	Child Development	3
CDEC 113	The Child, Family, and Community	3
EDT 104	Word Processing for Educators	2
SLP 100	Introduction to Speech-Language Pathology	3
SLP 110	Normal Communication, Disorders & Differences	4
		15
First Year		
Second Semester		
CD 137	Positive Child Guidance	1.5
CD 138	Observation & Assessment of Childhood Behavior	1.5
CDSE 50	Survey of Special Education	3
SPCH 271	Voice and Articulation	3
SLP 120L	Phonetics Lab	1
SLP 125	Childhood Disorders and Treatment	5
		15
Second Year		
First Semester		
SL 101	Beginning American Sign Language	3
SPCH 229	Speech & Language Development in Children	3
SLP 230	Adaptive Communication Technology	1.5
SLP 235	Adult Disorders and Treatment	5
		12.5
Second Year		
Second Semester		
SL 102	Intermediate American Sign Language	3
SLP 240	Childhood Field Experience	2.5
SLP 245	Adult Field Experience	2.5
		8.0
Total Units		48.5

Recommended Elective: A&P 120
See Cerritos College Graduation Requirements

Individuals holding B.A. in Communication Disorders should make an appointment with the SLPA Department Chair prior to

enrollment in SLP 240 and SLP 245. Enrollment is contingent upon satisfactory completion of the placement process.

TEACHING CREDENTIAL PREPARATION

The State of California provides for a two-step, five-year program leading to the Professional Clear Teaching Credential. A student may complete the requirements for a Preliminary Clear Credential within an approved professional preparation program including student teaching and may be employed at that point, providing all requirements have been met (except the fifth year). Within five years, the student must complete an additional year of study. At that point, a Professional Clear Teaching Credential is granted. The required lower division courses may be completed at Cerritos College. For more information, log on to the California Commission on Teaching Credentialing website at www.ctc.ca.gov and the CalTeach website at www.calteach.com.

SINGLE SUBJECT INSTRUCTION CREDENTIAL

(Primarily for Secondary Schools)

A teacher authorized for Single Subject instruction may be assigned to teach this subject at any grade level--pre-school through classes for adults. In practice, most teachers with Single Subject authorization teach in junior or senior high schools, grades 7-12.

A candidate lacking this major background may validate competency by passing an examination in a specified subject matter category. No minor is required.

MULTIPLE-SUBJECT INSTRUCTION CREDENTIAL

(Liberal Studies/Elementary School Teaching)

A teacher authorized for Multiple Subject instruction may be assigned to teach in any self-contained, multiple subject classroom—pre-school through classes for adults. In practice, most teachers with Multiple Subject authorization teach in Early Childhood and Elementary Education, pre-school through grade six.

Completion of the courses recommended below will partially satisfy requirements for the Liberal Studies elementary school teaching option offered at the indicated CSU's and UCR. The courses are part of a curriculum that can be started at a community college and completed at the CSU or UCR. The entire curriculum is designed for individuals who seek the pre-professional subject matter preparation for elementary school teaching consistent with the standards established by the California Commission on Teacher Credentialing.

According to California law, any major can be selected to partially satisfy elementary school teacher preparation requirements. Students who complete a major other than an approved major such as Liberal Studies however, must verify competence in multiple subjects by earning a passing score on an examination approved by the CCTC such as the Multiple Subjects Assessment for Teachers (MSAT) or California Subject Examination for Teachers (CSET). Beginning January 25, 2003, the MSAT will be replaced with the CSET in Multiple Subjects. The CSET is administered by National Evaluation System, Inc. The five hour test consists of three separate subtests, each containing both multiple-choice and essay questions. Once a subtest has been passed, it does not have to be taken again as long as the score is used toward certification within five years of the testing date. For further information visit the CSET website at www.cset.nesinc.com

Students who wish to choose an academic major other than Liberal Studies in order to prepare for elementary school teaching should schedule an appointment with their counselor.

Students who choose a liberal arts major in order to benefit from a broad interdisciplinary liberal arts education and do not wish to pursue elementary school teaching should see a Cerritos College counselor for advisement. Requirements may vary from those listed below.

An Associate in Arts Degree in liberal studies is not available at Cerritos College. Students may however, declare General Studies as a major.

CBEST

It is recommended that students seeking a teaching credential take the CBEST (California Basic Educational Skills Test) the semester before transferring to a university. The CBEST verifies proficiency in reading, mathematics, and writing. Passing the CBEST is a requirement for obtaining a teaching credential issued by the California Commission on Teacher Credentialing and is required prior to student teaching. A test fee is required. For more information, log onto www.cbest.nesinc.com

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

See individual CSU's listed below for additional courses.

English 100
Speech 130
English 103, Philosophy 106, 202, or Speech 235
Biology 120
Math 110A
Music 105
History 201
History 245
Political Science 101

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

English 100
English 102
Speech 100, 120, 130, 132
English 103, Philosophy 106, 202, or Speech 235
Biology 120
Any Physical Science course from Area B1* (ESCI 110 preferred)
Math 110A and 110B
Art 100, 101, 102, 103, or 106 (100 preferred)
Music 100 or 105 (105 preferred)
English 222
History 101, 201, 202, 220, or 221 (201 preferred)
Political Science 101 or 201 (101 preferred)
Geography 105
History 120
History 245 or 246 (245 preferred)
Child Development 110 or Psychology 251
EDT 110 and one from EDT 66, 70, 100
Any course from Area E* (PE 141 preferred)

CALIFORNIA STATE UNIVERSITY, LONG BEACH

Teacher TRAC / ITEP Curriculum

The Teacher TRAC curriculum fulfills most lower division requirements for CSULB's Integrated Teacher Education Program. Upon completion of ITEP a student will meet requirements for both a B.A. in Liberal Studies and preliminary multiple subject teaching credential for teaching grades K through 8th, without having to enroll in a year-long credential program. To be eligible for Teacher TRAC, students must have a minimum 2.50 GPA and be ready to enroll for Math 60 and English 52. Applications and further information are available

at the Teacher TRAC Center and at the Teacher TRAC website, www.teachertrac.com.

Biology 120
Chemistry 105
Child Development 110
Child Development 115
Earth Science 110
Education/Elementary School Teachers 100+
Education/Elementary School Teachers 200+
Educational Technology 110
English 100
Geography 105
History 120
History 201
History 245
Math 105
Math 110A
Math 110B
Music 105
Physical Science 112
Political Science 101
Speech 130
Theatre 101
Educational Technology 57, 64, 66, 67, 68, 70, 100, 103, 105, or 111
English 103, Philosophy 106, 202, or Speech 235
Philosophy 100, 102, or 200
+Courses are restricted to official Teacher TRAC students only.

Traditional Curriculum

The following courses meet lower division requirements for the traditional teacher preparation program consisting of BA and year-long credential program. Teacher TRAC requirements differ from those below.

English100
Speech 130
English 103, Philosophy 106, 202, or Speech 235
Biology 120
Earth Science 110
Physical Science 112 or Geology 101
Math 110A and 110B
Music 105
Theatre 101 or Physical Education 191
English 102, 230A, 230B, 246A, 246B, 248A, or 248B
English 222 or Speech 145
Philosophy 100, 102, or 200
History 101 or 201
Political Science 101 or 201
Anthropology 100
Geography 105
History 120
History 245 or 246
Psychology 101
Child Development 110

Note: CSULB WAIVES AREA E* FOR TEACHER TRAC/ITEP AND TRADITIONAL LIBERAL STUDIES MAJORS

CALIFORNIA STATE UNIVERSITY, FULLERTON

For students who started college Summer 2002 or earlier: This program is being phased out. All courses below and all required courses at CSUF must be completed by December 31, 2007.

Speech 100, 120, 130, or 132, or 150
English 100
English 103, Philosophy 106, 202, Psychology 103, or Speech 235
Any Chemistry or Physics course from Area B.1*
Astronomy 101 (or 101 and 101L or 105L), 102 (or 102 and 105L), 103 (or 103 and 105L), 106 (or 106 and 105L), Earth Science 101 (or 101 and 101L), 104, 106, 110, Geography 101, Geology 101, 110, 201, 204, 207, or 209
Any Biological Science course from Area B.2*
(Lab required for Physical Science or Biological Science)
Any Mathematics course from Area B.3*
(Math 110A and 110B recommended)
Any Fine Arts course from Area C.1*
(Music 105 or knowledge of music theory recommended for Liberal Studies majors)
English 230A, 230B, 246A, 246B, 248A+, or 248B+
English 222+
(+Liberal Studies students should include either English 248A or 248B. Students who may want to teach English at the junior high level should satisfy at least one of these literature requirements [+] at the upper division level at CSUF).
English 248A+, Philosophy 100, or 200 (Liberal Studies majors should wait to meet this requirement at CSUF).
Foreign Language, one semester
History 101, 201, 202, 220, or 221
History 245
Political Science 101 or 201
Geography 102 or 105
One course from Area D.3*
(e.g. Anthropology 100, Psychology 101, or Sociology 101)
Child Development 110
One course from Area E*

For students beginning college Fall 2002 or later:
Speech 100, 120, 130, 132, 150 (Speech 130 preferred)
English 100
English 103, Philosophy 106, 202, Psychology 103, or Speech 235
Chemistry 100
Geology 101
Biology 120
Any Mathematics course from Area B.3* (Math 114 preferred)
Physical Education 180 AND 181+
Theatre 101+
Music 100 or 105+
(+For most efficient transfer, Liberal Studies majors should take either Physical Education 180 AND 181 or Theatre 101. All other majors should complete two of the three groups: either Physical Education 180 AND 181, Theatre 101, or Music 100 or 105)
English 230A, 230B, 246A, 246B, 248++, 248B++
English 222++
(++Liberal Studies majors should wait and take one of these at CSUF)
History 101 or 201
History 245
Political Science 101 or 201
Geography 102 or 105
Child Development 110
One course from Area E*

Prior to transferring to CSUF, request CSU GE certification.

For the latest information or clarification about program requirements, either call the Center for Careers in teaching (714-278-7130) or check the CCT website at www.fullerton.edu/cct. Community college students are advised to attend an information seminar at CSUF. Seminar dates are on the website.

*REFERS TO DESIGNATED AREAS OF THE CSU GENERAL EDUCATION CERTIFICATION REQUIREMENTS

UNIVERSITY OF CALIFORNIA, RIVERSIDE

English 100
English 103, Philosophy 202, or Psychology 103
Speech 130
Biology 120 or Sociology 120
Chemistry 100+
Astronomy 102+, 103+, Biology 105, Earth Science 101, Geology 101+, or 201
One additional science course selected from above
Math 150+, 114+, 115, 116+, or 117+
Art 101, 110, or 136
Music 100, 101, 104, 105, or 106
English 106
English 227, 228, 230A, 230B, 232, 233, 235, 246A, or 246B
Philosophy 100, 102, or 106
One additional English or Philosophy class selected from above
Language other than English, level 201
History 201
Political Science 101
Anthropology 100
History 245 or 246
Psychology 101 or Sociology 101
For other social science options log onto www.assist.org or see a counselor.
Health Education 100

RECOMMENDED: Any Physical Education activity course.

+ UC credit limitation. See counselor for details.

THEATRE ARTS—130

ASSOCIATE IN ARTS DEGREE PROGRAM

The following Theatre Program of Study has been designed to prepare students for an AA Degree. Students interested in preparing for a Bachelor's Degree at a four-year college are referred to the Theatre Arts Transfer Program (135).

ACTING OR TECHNICAL EMPHASIS 32 UNITS MINIMUM

		UNITS
TH 101	Introduction to the Theatre	3
TH 102	History of the Classical Theatre	3
TH 103	History of the Modern Theatre	3
TH 110	Fundamentals of Acting	3.5
TH 130	Rehearsal/Performance for the Minor Role	1
TH 131	Rehearsal/Performance for the Supporting Role	2
TH 132	Rehearsal/Performance for the Leading Role	3
TH 133	Stage Crew Activity	1
TH 134	Technical Production	2

CHOOSE ONE:

TH 111	Intermediate Acting to Characterization	3.5
TH 114	Voice for Acting	2
TH 115	Stage Movement and Combat	3

CHOOSE TWO:

TH 120	Theatre Stagecraft	3
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3

PLUS SIX (6) UNITS FROM AT LEAST TWO OF THE FOLLOWING:

TH 108	Improvisation for the Theatre	3.5
TH 111	Intermediate Acting to Characterization	3.5
TH 114	Voice for Acting	2
TH 115	Movement for the Actor	3
TH 120	Theatre Stagecraft	3
TH 123	Stage Make-Up	3
TH 136	Community Theatre Production	2
TH 212	Scene Study	3.5
TH 213	Historical Styles of Acting	3
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3
TH 226	Introduction to Scene Design	2
MUS 146	Recording Techniques	2

MEDIA EMPHASIS (25 UNITS REQUIRED)

TH 150	Appreciation and History of the Motion Picture	3
TH 151	Motion Pictures, Radio and Television	3
TH 152	Introduction to Broadcasting	3
TH 153	Motion Picture Production	3
TH 155	Radio Production	3
TH 156	Television Production	3
TH 159	Multicultural Film	3
TH 258	Writing for Movies and Television	3
MUS 146	Recording Techniques	2

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 units must be completed to include: (1) one of the options above, (2) AA Degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Acting, announcing, directing, scriptwriting, reporting, construction and painting technician, costume construction technician, lighting and design technician, media/sound recording technician, theatre and media production assistant, playwriting, theatre management and box office worker, stage and media publicity technician.

See Cerritos College Graduation Requirements.

THEATRE ARTS—135
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
TH 110	Fundamentals of Acting	3.5
TH 120	Theatre Stage Craft	3

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills

TH 101	Introduction to the Theatre	3

California State University – Fullerton

Acting Emphasis:

SPCH 140	Oral Interpretation of Literature	3
TH 101	Introduction to the Theatre	3
TH 111	Intermediate Acting to Characterization	3.5
TH 114	Voice for Acting	2
TH 115	Stage Movement and Combat	3
TH 123	Stage Make-Up	3
TH 212	Scene Study	3.5

Technical Production/Design Emphasis:

TH 101	Introduction to the Theatre	3
TH 111	Intermediate Acting to Characterization	3.5
TH 123	Stage Make-Up	3
TH 221	Costuming for the Stage	3
TH 226	Introduction to Scenic Design	2

California State University – Los Angeles

TH 111	Intermediate Acting to Characterization	3.5
TH 212	Scene Study	3.5

California State University – Long Beach

TH 123	Stage Make-Up	3
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3

University of California – Irvine

Drama Major:

TH 111	Intermediate Acting to Characterization	3.5
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3
TH 226	Introduction to Scenic Design	2

Plus, two (2) courses in Dance (Ballet, Jazz, Modern, Tap).

University of California – Los Angeles

Select courses from recommended preparation:

TH 114	Voice for Acting	2
TH 115	Stage Movement and Combat	3
TH 133	Stage Crew Activity	1
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Preparation for the Theatrical profession as performer, technician, costuming, lighting, make-up, scenery director, and technical director in such areas as the professional theatre, community theatre, recreational theatre, children's theatre, and educational theatre.

See Cerritos College Graduation Requirements.
See State University General Education List.

WELDING—861

CERTIFICATE OF ACHIEVEMENT

Welding Technology Certificates of Achievement are available under three options: Arc Welding, Gas Tungsten Arc Welding, and Pipe Welding. The basic core courses must be taken for all three certificate options.

WELDING BASIC CORE COURSES		UNITS
WELD 39	Welding Shop Math	2
WELD 50	Blue Print Reading for the Welding Trades	3
WELD 100	Fundamentals of Welding	2
or WELD 110	Oxy-Acetylene Welding	(4)
WELD 120	Beginning Arc Welding	4
WELD 170	Structural Fabrication	2
		13(15)

NOTE: The WELD 39 requirement for a Certificate of Achievement may be met with a satisfactory score on the Math Placement Test.

ARC WELDING OPTION—857

WELD 200	Intermediate Arc Welding	4
WELD 210L	Arc Welding Applications	2
WELD 220	Certification and Licensing for Welders	2
		21(23)

NOTE: The student must also pass the L.A. City or AWS certification for structural steel with both the SMAW and FCAW processes. These certifications may be obtained through the Welding Department.

INERT GAS WELDING OPTION—858

WELD 130	Gas Tungsten Arc Welding Fundamentals	4
WELD 240	Advanced Gas Tungsten Arc Welding Lab (2 labs required)	4
WELD 250L	Gas Tungsten Arc Welding Applications (2 labs required)	4
		25(27)

PIPE WELDING OPTION—859

WELD 52	Pipe Welding Fundamentals	4
WELD 53	Pipe Layout	2
WELD 54L	Advanced Pipe Welding	2
WELD 130	Gas Tungsten Arc Welding Fundamentals	4
WELD 200	Intermediate Arc Welding	4
WELD 210L	Arc Welding Applications	2
WELD 240	Advanced Gas Tungsten Arc Welding Lab	2
		35(35)

NOTE: The student must also pass the ASME section IX6G performance exam available through the Welding Department.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The student must complete one of the certificate options and electives and general education to achieve a minimum of 60 units.

RECOMMENDED ELECTIVES: MTT 100, ENGT 131, WELD 55

CAREER OPPORTUNITIES: Welder, welding inspector, welding technician or fitter, pipe fitter, maintenance mechanic. Welders are employed in aircraft industries, shipyards, job shops, pipeline construction, and building construction.

See Cerritos College Graduation Requirements.

WILDLIFE MANAGEMENT—675

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR HUMBOLDT STATE UNIVERSITY		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
or PHYS 101	General Physics	(4)
MATH 116	Calculus for Managerial, Biological and Social Sciences	4
or MATH 170	Analytic Geometry and Calculus I	(4)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above required courses and (2) the Associate in Arts Degree general education requirements.

CAREER OPPORTUNITIES: After transfer to a four-year college or university and completion of the Bachelor's Degree program, graduates qualify for graduate study and for employment with both public and private agencies in wildlife management and/or fisheries biology.

See Cerritos College Graduation Requirements.
See State University General Education List.

WOODWORKING MANUFACTURING TECHNOLOGIES—893
CERTIFICATE OF ACHIEVEMENT PROGRAM

WMT BASIC CORE COURSE		UNITS
WMT 101	Introduction to Woodworking	2
WMT 102	Machine Wood Technology	4
WMT 103	Machine Wood Technology II	4
WMT 107	Wood Finishing	3
WMT 151	Introduction to Cabinetmaking	4
WMT 181	Introduction to Computer Operations For Cabinetmaking and Design	2.5
TM 50	Technical Mathematics	3
ART 20	Two-dimensional Design	3

AND TWELVE (12) UNITS SELECTED FROM THE FOLLOWING COURSES:

WMT 132	Chair Design and Construction	4
WMT 134	Frame Making	4
WMT 148	Furniture Making and Manufacturing	4
WMT 153	32MM System of Cabinetmaking	4
WMT 171	Introduction to Boat Building	3
WMT 202	Advanced Machine Wood Technology	4
WMT 211	The Workbench Class	4
WMT 212	Router and Router Tables	4
WMT 248	Production Furniture Making and Manufacturing	4
WMT 249L	Furniture Manufacturing Specialty	2.5
WMT 251	Advanced Cabinetmaking	2
WMT 253	Advanced 32MM System of Cabinetmaking	3
WMT 268	Production Cabinetmaking and Manufacturing	5
WMT 281	Advanced Computer Operations for Cabinetmaking and Design	2.5
TOTAL CERTIFICATE UNITS		37.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Complete 60 units to include (1) the above Certificate of Achievement requirements, (2) BA 41, (3) the Associate in Art Degree requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: WMT 211, WMT 212, WMT 268

CAREER OPPORTUNITIES: Upon completion of the program, a student is prepared to design, construct, and produce cabinet and furniture products to industry standards.

See Cerritos College Graduation Requirements.

WOMEN'S STUDIES

The A.A. degree in Women's Studies is a two-year academic program geared for transferring students. Its emphasis will be to explore the role of gender as it influences culture, politics, economics and women's history.

The underlying academic objectives of our program are captured in our mission statement. "The Cerritos College Colloquium for Women's Studies believes that the attitudes that shape a society's treatment of gender influence its economic, social and cultural politics. As such, we hold that women's rights should be studied in the broader context of human rights. Since we are committed to meeting the needs of all our students, we promote an inclusive curriculum."

To graduate in a Women's Studies major, a student must complete 15 units within the courses listed below. Two of the classes must be from the "core" courses, while the others can be selected from the recommended standard electives. Within the "core" courses, all Women's Studies majors are required to take Women's Studies 101, a foundational course in the theory and issue of Women's Studies.

The objectives of the proposed program:

1. Provide students with a two-year sequenced A.A. degree program in Women's Studies.
2. Provide students with a two-year program that combines required "core" courses in Women's Studies with a variety of electives offered by the Women's Studies Department.
3. Provide students with specific transfer articulation agreements with two universities: The California State University, Long Beach and the University of California, Irvine when the agreement is completed.
4. Offer a degree program in Women's Studies that sets high academic standards and that helps students to understand the way gender influences our history, culture, literature, political system, and economic decision-making.

WOMEN'S STUDIES—520
ASSOCIATE IN ARTS DEGREE

MAJOR REQUIREMENTS		UNITS
WS 101	Issues for Women in American Society (Women's Studies)	3
Select one of these courses (3 units):		
ECON 102	Women in the Global Economy (Women's Studies)	3
ENGL 236	Studies in Women's Literature (Women's Studies)	3
Additional requirements (select at least 9 units):		
ECON 202	Principles of Microeconomics (Women's Studies)	3
ENGL 103	Critical & Argumentative Writing (Women's Studies)	3
ENGL 224	Native American Literature (Women's Studies)	3
GEOG 105	World Regional Geography (Women's Studies)	3
HED 100	Contemporary Health Problems (Women's Studies)	3
HIST 101	American History & Constitution (Women's Studies)	3
PHIL 202	Critical Thinking & Argumentative Writing (Women's Studies)	3
PE 160	Self Defense for Women (Women's Studies)	1
SOC 101	Introductory Sociology Principles (Women's Studies)	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

To qualify for a degree in Women's Studies students must take courses listed above that are designated as having Women's Studies emphasis and complete all A.A. degree general education requirements for a total of at least 60 units.

ZOOLOGY—695

TRANSFER PROGRAM

LOWER DIVISION PREPARATION

FOR SPECIFIC TRANSFER INSTITUTIONS		UNITS
California State University - Long Beach		
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
GEOL 101	The Earth Environment	4
or MICR 200	Introduction to Microbiology	(5)
MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological and Social Science	(4)
MATH 190	Analytic Geometry and Calculus II	4
PHYS 101	General Physics	4
PHYS 102	General Physics	4
California State Polytechnic University - Pomona		
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
BOT 120	Introduction to Plant Science	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 112	Elementary Statistics	4
MICR 200	Introductory Microbiology	5
PHYS 101	General Physics	4
PHYS 102	General Physics	4
University of California - Santa Barbara		
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological and Social Science	(4)
MATH 112	Elementary Statistics	4
or MATH 190	Analytic Geometry and Calculus II	(4)
and MATH 240	Calculus and Differential Equations	4
PHYS 101	General Physics	4
PHYS 102	General Physics	4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include (1) the above required courses, (2) the Associate in Arts Degree general education requirements, and (3) electives as needed.
CAREER OPPORTUNITIES: Bachelor's Degree programs are designed to qualify the student for graduate study, entrance to medical, dental or veterinary schools, teaching through secondary schools, employment in Federal and State Civil Service, research laboratories of industrial, pharmaceutical firms, or natural museum work.

See Cerritos College Graduation Requirements.
See State University General Education List.

Announcement of Courses

This section of the catalog provides the course description for all courses approved by the Cerritos College Curriculum Committee.

All courses, unless otherwise indicated, apply for credit toward an A.A. Degree in accordance with California Administrative Code, Title V, Section 55805.5.

Courses that do not meet the A.A. Degree requirements are indicated with a statement "(Not degree applicable)" beside the course title.

Students are advised to see a counselor for clarification if they have any questions regarding the appropriateness of a course to meet their educational goal.

Please check with your counselor and the department for new developments in curriculum that have not been included in the catalog.

CALIFORNIA ARTICULATION NUMBERS (CAN)

The California Articulation Number System, known as CAN, is a means of identifying comparable courses offered at Cerritos College and other colleges in California. CAN is a system that uses the same prefix and number to identify a course on every participating campus. Each campus has its own number; the CAN is added to denote courses that can be used in lieu of each other at participating colleges. For example, if CAN BUS 2 (BUSA 101) is completed at Cerritos College, that course will be accepted as a course that is designated as CAN BUS 2 at another college campus.

A CAN-identified course assures that a course is not only transferable, but will be used on the receiving campus in the same way as its own CAN-identified course. Over 100 campuses in California are using the CAN System to assist their students in the transfer process. More than 80 Cerritos College courses carry a CAN designation. The CAN designation for Cerritos College courses is listed in the catalog with course descriptions. (See BUSA 101). Additional information is available in the CAN Catalog of Courses in the Counseling Office and online at www.can.csus.edu.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

BUSINESS DIVISION

(562) 860-2451 EXT. 2715

Business Accounting
Business Administration
Business Communications
Business Computerized Office Technologies
Business Court Reporting/Computerized Shorthand
Business Finance
Business Paralegal
Business Real Estate
International Studies

COUNSELING & GUIDANCE DIVISION

(562) 860-2451 EXT. 2126

Counseling & Guidance

FINE ARTS & COMMUNICATIONS DIVISION

(562) 860-2451 EXT. 2600

Art and Design
Humanities
Journalism
Music
Photography
Theatre Arts

HEALTH OCCUPATIONS DIVISION

(562) 860-2451 EXT. 2550

Child Development
Child Development/Early Childhood
Child Development/Family Child Care
Child Development/Infant Toddler
Child Development/Parent Education
Child Development/School Age
Child Development/Special Education
Culinary Arts
Dental Assisting
Dental Hygiene
Health Occupations
Emergency Medical Technician
Medical Front Office
Medical Assistant
Nursing
Pharmacy Clerk
Pharmacy Technician
Physical Therapist Assistant
Speech-Language Pathology Aide
Speech-Language Pathology Assistant

HPER / ATHLETICS DIVISION

(562) 860-2451 EXT. 2859

Health Education
Physical Education/Athletics
Recreation

HUMANITIES AND SOCIAL SCIENCES DIVISION

(562) 860-2451 EXT. 2750

Administration of Justice
Anthropology
Education/Elementary School Teachers
Economics
History
Humanities
Interdisciplinary Studies
Philosophy
Political Science
Psychology
Sociology
Women's Studies

LIBERAL ARTS DIVISION

(562) 860-2451 EXT. 2858

English
English as a Second Language
French
German
Japanese
Reading
Sign Language
Spanish
Speech

SCIENCE, ENGINEERING, AND MATHEMATICS DIVISION

(562) 860-2451 EXT. 2660

Anatomy & Physiology
Astronomy
Biology
Botany
Chemistry
Computer and Information Sciences
Earth Science
Energy
Engineering
Geography
Geology
Mathematics
Microbiology
Ornamental Horticulture
Physical Science
Physics
Zoology

TECHNOLOGY DIVISION

(562) 860-2451 EXT. 2900

Architecture
Automotive Collision Repair
Automotive Mechanical Repair
Cosmetology
Electronics
Engineering Design Technology
Industrial Arts
Machine Tool Technology
Manufacturing Technology
Metallurgy & Material Science
Plastics Manufacturing
Technical Mathematics
Welding
Woodworking Manufacturing Technologies

TECHNOLOGY TRAINING AND DISTANCE EDUCATION DIVISION

(562) 860-2451 EXT. 2837

Educational Technology

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

ACCOUNTING

SEE BUSA
(Business Accounting / Finance)

ADMINISTRATION OF JUSTICE

(Humanities / Social Sciences Division)

The following courses have been developed by an Area Advisory Committee and are uniform in content with the offerings of most colleges and in conformance with guidelines from the California Community College Chancellor's office.

AJ 71
FIRST AID—
ADMINISTRATION OF JUSTICE 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This basic course in emergency first aid and cardiopulmonary resuscitation emphasizes how to recognize and render assistance to the ill or injured where there is an airway obstruction, respiratory arrest, cardiac arrest, severe bleeding, shock, actual or suspected fractures, head injuries, or other life-threatening environmental circumstances. This course meets the California Department of Health requirements as described in the California Administrative Code. A basic Red Cross Certificate will be issued to those students who successfully complete the course. (Formerly AJ 13)

AJ 91
REPORT WRITING PROCEDURES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course includes the procedures and practices commonly used to gather data and prepare a variety of police records. Emphasis will be placed upon the need to use correct spelling, sentence structure, punctuation and vocabulary in criminal justice reports to meet statistical, legal and prosecution requirements of the criminal justice system. (Formerly AJ 11)

AJ 101 (CAN AJ 2)
INTRODUCTION TO
ADMINISTRATION OF JUSTICE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a study of the history and philosophy of the system of administration of criminal justice in the United States. It examines the various sub-systems; role expectations and their interrelationships; theories of crime, punishment, and rehabilitation; ethics; education and training for professionalism in the system; and legal words and phrases as an aid in the communication process. (Formerly AJ 1)
Transfer Credit: CSU; UC

AJ 102 (CAN AJ 4)
CONCEPTS OF CRIMINAL LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides an introduction to the historical development and philosophy of law and constitutional provisions; as well as crime definitions, classifications of crime, legal research, legal methodology, and concepts of law as a social force. A brief analysis of criminal intent, parties to a crime, elements of crime, corpus delicti, defenses to crimes and an introduction to laws of arrest will also be undertaken in this class. (Formerly AJ 2.1)
Transfer Credit: CSU; UC

AJ 103
CRIMINAL PROCEDURES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a detailed examination of California criminal procedure, including the California court system, jurisdiction and venue, laws of arrest, grand jury proceedings, extradition, pre-trial procedures, conduct of criminal trials, rights of the defendant, post-trial motions and appeals, probation and parole. (Formerly AJ 3)
Transfer Credit: CSU;

AJ 104
CRIMINAL EVIDENCE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course stresses the origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations which affect arrest, search and seizure; kinds and degrees of evidence; the rules governing the admissibility of evidence; and judicial decisions relating to individual rights. (Formerly AJ 4)
Transfer Credit: CSU

AJ 105
COMMUNITY RELATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a study of the relationship between law enforcement agencies and the changing communities they serve. The student will compare various approaches to preventing crime and limiting the effects of crime on the individual and the community. The course will also focus on the ethics, politics and the professional image necessary to maintain positive rapport between law enforcement agencies and their communities. (Formerly AJ 5)
Transfer Credit: CSU; UC

AJ 110
CONCEPTS OF
ENFORCEMENT SERVICES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course explores the theories, philosophies and operational concepts of Law Enforcement Field Services, and examines the role expectations of the police field officer. Emphasis is placed upon patrol, traffic and public service responsibilities and their relationship to the total criminal justice system. (Formerly AJ 10)
Transfer Credit: CSU

AJ 130
TRAFFIC CONTROL
AND INVESTIGATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is an in-depth study of the California Vehicle Code, the enforcement of basic traffic laws, selective enforcement, public relations, highway safety engineering, and violator contact. Also included are accident investigation, skid mark analysis, preservation of evidence, hit and run investigation, the intoxicated driver, enforcement methods and psychology, and specialized traffic enforcement units. (Formerly AJ 30)
Transfer Credit: CSU

AJ 150
INTRODUCTION TO
CORRECTIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the philosophy, history, functions and objectives of the system of corrections in the United States. It includes a study of correctional institutions, community based corrections, parole and probation. An overview of special problems and clientele, custody practices and procedures, and treatment technique will be stressed. (Formerly AJ 50)
Transfer Credit: CSU

AJ 173
ADMINISTRATIVE OF JUSTICE
OCCUPATIONAL WORK
EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Administration of Justice work experience

173 or 20 hours of employment per week for Administration of Justice work experience 174. The employment must be in a job related to the student's educational goal.
Prerequisite: (1) Concurrent enrollment in the Administration of Justice vocational program with 7 or more units including occupational work experience. (2) Consent of the department.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. Student who are not employed but wish to gain work experience may be placed in a non-paying position if such opportunities are available. This course may be taken for a maximum of 16 units. (Formerly AJ 73/74)
Transfer Credit: CSU

AJ 180 (Not degree applicable)
INTRODUCTION TO PRIVATE AND BUSINESS SECURITY **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with a presentation of the history and development of security services and inter-relationships with legal processes, including the organization, administration, and management of private security. The operation of security departments, including investigations into internal thefts and customer thefts, public relations, and a comparison of public and private enforcement statutes and procedures is covered. Current requirements for state security personnel and an examination of career opportunities will be discussed. Powers of arrest will be taught, which satisfies the requirements of the State of California under Business and Professions Code Section 7514.1. (Formerly AJ 80)

AJ 202
SUBSTANTIVE LAW **3 UNITS**
Class hours: 3 lecture
Prerequisite: AJ 102 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the substantive criminal laws commonly enforced by municipal, county or state police officers, or other criminal justice investigators. The course provides a complete analysis of both statutory laws and case decisions. (Formerly AJ 2.2)
Transfer Credit: CSU

AJ 208
SPECIAL ISSUES IN LAW ENFORCEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course provides instruction in special issues critical to effective service by law enforcement professionals in modern society. Topics to be covered will include police as professionals; defining and applying values, principles, and moral standards to law enforcement; police and the community; tactical communication; correctly utilizing information systems in police work; and dealing effectively with persons with disabilities. (Formerly AJ 97.1/AJ 8)
Transfer Credit: CSU

AJ 220
CRIMINAL INVESTIGATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course stresses the fundamentals of investigation: crime scene search and recording, collection and preservation of physical evidence, scientific aids to investigation, modus operandi, sources of information, interviews and interrogation, follow-up investigation and case preparation. (Formerly AJ 20)
Transfer Credit: CSU

AJ 221
NARCOTICS AND VICE CONTROL **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to the fields of narcotics and vice investigation. It examines the detection, suppression, apprehension and prosecution of narcotic and vice law violators. Field identification of controlled substances and their effects on the body are stressed. Laws relating to bookmaking, gambling, prostitution and morals offenses are also covered. (Formerly AJ 21)
Transfer Credit: CSU

AJ 222
JUVENILE PROCEDURES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course emphasizes the organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures relative to juvenile offenders. (Formerly AJ 22)
Transfer Credit: CSU

BUSINESS

SEE BA (Business Administration)

ANATOMY AND PHYSIOLOGY

(Science / Engineering / Math Division)

A&P 120
INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY **4 UNITS**
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed as a survey of human anatomy and physiology. It covers the basic principles of human anatomy and physiology including a survey of the tissues, organ systems, and principal anatomical features. Emphasis is also placed on integrated organ system physiology, human genetics and development. (This course is designed primarily for non-biology majors.) (Formerly A&P 10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: A&P 120 and A&P 130 combined; maximum credit, one course. A&P 120 or A&P 130 combined with A&P 200, A&P 201: maximum credit, 2 courses.*

A&P 130
HUMAN ANATOMY AND PHYSIOLOGY **5 UNITS**
Class hours: 4 lecture/1 quiz/2 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher, satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher, and CHEM 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course examines the gross and microscopic structures of the human body using a systematic approach. Emphasis is placed on the normal function and integration of the organ systems. Homeostatic imbalances of many systems are examined. The laboratory utilizes models, human cadaver, skeletal materials, dissection and selected physiological exercises. This course is designed for students entering the nursing program at Cerritos College; however, it also meets the needs of

other allied health programs. This course is strongly recommended for students who plan on taking A&P 200 and A&P 201. (Formerly A&P 40)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A&P 120 and A&P 130 combined: maximum credit, one course. A&P 120 or A&P 130 combined with A&P 200, A&P 201: maximum credit, 2 courses.*

A&P 200 (CAN BIOL SEQ B)(CAN BIOL 10)
HUMAN ANATOMY **5 UNITS**
Class hours: 3 lecture/2 quiz/4 lab
Recommendation: BIOL 120 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course emphasizes the gross structure, microscopic anatomy, and embryology of the organ systems of the human body. Emphasis is placed on showing the complementarily structure and function of the cellular, tissue, organ, and system levels. This course satisfies the requirements for majors in four year nursing programs, physical therapy, physical education, dental hygiene, and related fields. (Formerly A&P 52)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A&P 120 and A&P 130 combined: maximum credit, one course. A&P 120 or A&P 130 combined with A&P 200, A&P 201: maximum credit, 2 courses.*

A&P 201 (CAN BIOL SEQ B)(CAN BIOL 12)
HUMAN PHYSIOLOGY **5 UNITS**
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: A&P 200 and CHEM 100 or equivalent with grades of Credit or "C" or higher.
This course involves a detailed study of the function of the human body with an emphasis on the maintenance of homeostasis by the various organ systems. The course will meet the requirements of four year nursing, dental hygiene, physical therapy, paramedical, physical education, and related majors. (Formerly A&P 53)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A&P 120 and A&P 130 combined: maximum credit, one course. A&P 120 or A&P 130 combined with A&P 200, A&P 201: maximum credit, 2 courses.*

ANTHROPOLOGY

(Humanities / Social Sciences Division)

ANTH 100 (CAN ANTH 4)
CULTURAL ANTHROPOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course traces the social behavior of present societies exploring various cultures on earth. The class will study those societies in terms of culture growth, through a survey of the basic, learned behavior patterns. Thus the class will study a wide range of cultural phenomena, including material culture, social organization, customs, religions, languages, family life, economics, the arts and literature. (This course is not open to students who are currently enrolled in or who have received credit for Anthropology 101.) (Formerly ANTH 2)
Transfer Credit: CSU; UC

ANTH 101
FACES OF CULTURE **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This is an introductory study of the structures and process of culture. The basic concepts of culture are presented including subsistence patterns, organizing devices, patterns for transmission of culture, economics, political organizations, social control, and culture change. The methods of anthropological research and major theoretical orientations are also described. (This course is not open to students who are currently enrolled in or who have received credit for Anthropology 100.) (Formerly ANTH 5)
Transfer Credit: CSU

ANTH 115 (CAN ANTH 2)
PHYSICAL ANTHROPOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is about the human past; where we came from and how we got to be the way we are today in terms of both biological and cultural evolution. The topics covered will include: the origin and development of the human species; heredity and population genetics; fossil evidence; the human's relation to the rest of the animal kingdom; and modern human diversity and variation. (Formerly ANTH 1)
Transfer Credit: CSU; UC

ANTH 120 (CAN ANTH 6)
INTRODUCTION TO ARCHAEOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Archaeology is the study of mankind's past. This course will cover the history of archaeology, and explore the objectives and methods of modern archaeology. Today's archaeological curiosity is tempered by the scientific method; a combination of sciences in order to get a better grasp on a total understanding of people. This course will explore the world of the archaeologist in order to appreciate the impact that the study of antiquities has had in understanding modern human cultures. (Formerly ANTH 3)
Transfer Credit: CSU; UC

ANTH 200
NATIVE PEOPLES OF NORTH AMERICA **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
The course is a study of the origins, culture areas, and sociocultural patterns of the native Americans, north of Mexico. This will include a study of the historic spectrum, from prehistory to contemporary times. Emphasis will be on the culture change after contact with Europeans, and the impact of the Western expansion. (Formerly ANTH 4)
Transfer Credit: CSU; UC

ANTH 201
NATIVE PEOPLES OF CALIFORNIA **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of California Indian cultures including their prehistory and social, political, and religious beliefs. The effects of European, Middle American, and Asian contact, and the resultant adaptations on current life situations of contemporary American native Americans will be examined. (Formerly ANTH 10)
Transfer Credit: CSU; UC

ANTH 202
THE MAYA, INCA AND AZTECS: ANCIENT CIVILIZATIONS OF THE AMERICAS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of ancient Indian culture of Northern, Middle and South America, including their prehistory and social, political, and religious beliefs. The impact of European contact and resultant adaptations, as well as current life situations of tribal

descendents in contemporary society will be examined. (Formerly ANTH 12)
Transfer Credit: CSU; UC

ANTH 203
THE ANTHROPOLOGY OF MAGIC, WITCHCRAFT, AND RELIGION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course is a cross-cultural study of the forms and functions of supernatural beliefs and associated rituals in primarily nonwestern societies. Emphasis is on understanding beliefs and rituals involved in animism, individualistic cults, shamanism, totemism, ancestor worship and witchcraft within their social contexts and within the larger scope of religion and human life. (Formerly ANTH 11)
Transfer Credit: CSU

ANTH 250
INTRODUCTION TO FIELD ARCHAEOLOGY 3 UNITS
Class hours: 1 lecture, 6 lab
Prerequisite: None.
Recommendation: ANTH 120 or equivalent with a grade of Credit or "C" or higher.
This is an introduction to the method of field archaeology including archaeological survey, excavation, mapping, recording of sites, and lab analysis of archaeological artifacts. (Formerly ANTH 16)
Transfer Credit: CSU

ANTH 251
FIELD TRIPS IN ARCHAEOLOGY 3 UNITS
Class hours: 1 lecture, 6 lab
Prerequisite: None.
Recommendation: ANTH 250 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in archaeological theory and methods in the field and the laboratory. The emphasis will be on actual site excavation and laboratory analysis. Field trips are required. Fees are required. This course may be taken for a maximum of 6 units. (Formerly ANTH 17)
Transfer Credit: CSU

ARCHITECTURE

(Technology Division)

ARCH 43/44(Not degree applicable)
ARCHITECTURAL DRAWING OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Architectural Drawing work experience 73 or 20 hours of employment per week for Architectural Drawing work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Concurrent enrollment in the Architectural Drawing vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Architectural Drawing students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly ARCH 73/74)

ARCH 110
INTRODUCTION TO ARCHITECTURE AND ENVIRONMENTAL DESIGN 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides an overview of the architectural profession allowing the student to make an informed career choice. Topics include professional ethics, licensing and educational requirements, career opportunities in related fields, typical organizational structure of architectural firms, legal requirements, and a review of contemporary issues facing the profession. (Formerly ARCH 10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: Any or all of the following architecture courses - ARCH 110, 122, 212 - combined with ART 120: maximum credit, 17 units.*

ARCH 111
INTRODUCTION TO ARCHITECTURAL DRAFTING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
This course is an introduction to the preparation of architectural working drawings. The course includes drawing conventions, design considerations, and the relationship between different types of architectural drawings, specifications, and construction techniques. Emphasis is placed on residential construction and commercial buildings. The theory of computer-aided drafting is included. (Formerly ARCH 11)
Transfer Credit: CSU

ARCH 112
HISTORY OF ARCHITECTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of the history of architecture from the birth of civilization to the present. Emphasis is placed upon the understanding of the technological, sociological, aesthetic, and artistic influences which determine our built environment. This course will familiarize students with the different architectural periods as well as their characteristic design elements and significant architects. (Formerly ARCH 12)
Transfer Credit: CSU; UC

ARCH 113
BUILDING CODES 4 UNITS
Class hours: 4 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an in-depth study of the statutes and regulations which have been established by law to protect the public health, safety, and welfare. Analysis of the construction of buildings, their use, and accessibility requirements in compliance with applicable laws will be stressed. (Formerly ARCH 20)
Transfer Credit: CSU

ARCH 121
MATERIALS AND METHODS OF BUILDING CONSTRUCTION 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 111 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course presents basic considerations and design implications of major structural and non-structural building systems. Analysis of the materials and construction details of commercial and industrial buildings is given.

Emphasis on the purpose and presentation of working drawings and their relationship to building codes is provided. (Formerly ARCH 21)
Transfer Credit: CSU

ARCH 122
ARCHITECTURAL DELINEATION 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: ARCH 111 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is a study of, and laboratory experience in, three-dimensional representations including renderings, perspective drawings, paraline drawings and presentation drawings of architectural projects. Emphasis is on the techniques of various drawing media which will enable the students to express their architectural ideas. (Formerly ARCH 30)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of the following architecture courses - ARCH 110, 112, 122, 212 - combined with ART 120: maximum credit, 17 units.*

ARCH 123
INTRODUCTION TO COMPUTER AIDED DRAFTING FOR ARCHITECTURE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ARCH 111 or ENGT 131 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides an introduction to computer aided drafting and design using AutoCAD software with architecture specific applications. Students will learn the fundamentals of creating two-dimensional computer drawings including creating and modifying objects, the placing of text and dimensions, working with arrays and blocks, and creating professional quality copies using a computer-driven plotter. Hands-on exercises will be used to reinforce the functions of AutoCAD. (Formerly ARCH 22/ARCH 50)
Transfer Credit: CSU

ARCH 211
ARCHITECTURAL DESIGN, PROGRAMMING, AND PRESENTATION 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 121 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course covers the development of critical thinking skills in design and programming of the single building. Study and application of the various factors that determine the form of buildings with a special emphasis on graphic presentations, colors, and models are given. (Formerly ARCH 31)
Transfer Credit: CSU

ARCH 212
ARCHITECTURAL DESIGN THEORY I 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 111 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is an introduction to the creative thinking process and its application to basic architectural design theory. Exercises emphasize the development of basic skills and presentation techniques used in the design of simplified architectural projects. Focus on the investigation of the relationship between theoretical concepts, color, space, form, and texture is emphasized. (Formerly ARCH 32)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: Any or all of the following architecture courses - ARCH 110, 122, 212 - combined with ART 120: maximum credit, 17 units.*

ARCH 213
ADVANCED APPLICATIONS OF COMPUTER AIDED DRAFTING FOR ARCHITECTURE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ARCH 123 or ENGT 138 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course continues to explore computer aided drafting and design using AutoCAD software with architecture specific applications. Students will explore advanced AutoCAD commands to create attributes, external references, and basic customization techniques. This course will also assist students in creating three-dimensional surfaces, images and solid modeling. Students will learn programming techniques using AutoLISP and Visual Basic for Applications (VBA) to increase computer proficiency. Hands-on exercises will be used to reinforce the functions of AutoCAD. (Formerly ARCH 33/ARCH 51)
Transfer Credit: CSU

ARCH 221
WORKING DRAWING / ARCHITECTURAL DESKTOP 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ARCH 121, ARCH 123 or ENGT 138 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an advanced computer aided drafting, design theory, and application course. The student will master techniques for creating three-dimensional building models, design presentations, and construction documents for architectural projects in a production environment. Students receive instruction utilizing the most recent release of AutoCAD interfacing with Architectural Desktop. (Formerly ARCH 41)
Transfer Credit: CSU

ARCH 222
ARCHITECTURAL DESIGN THEORY II 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 212 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course includes the continued development of the creative thinking process and its application to advanced architectural design theory, focusing on the synthesis of the relationship between theoretical concepts, space, color form, and texture. The emphasis of the course is on presentation graphics, models, and the development of a portfolio of student work. This course is particularly applicable to students wishing to transfer into a professional architectural degree program. (Formerly ARCH 42)
Transfer Credit: CSU

ART AND DESIGN

(Fine Arts / Communications Division)

ART 50
CHINESE BRUSH PAINTING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the basic introduction to oriental brush, ink and colors. The student learns concepts in design and composition, as well as the philosophy that is the basis of Chinese brush painting. Subjects include traditional floral and animal studies, and abstract expressions. Techniques for

mounting of art work are also studied. This course may be repeated for a maximum of 6 units. (Formerly ART 69.10/ART 22)

ART 100
INTRODUCTION TO WORLD ART 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher.
This course is an overview of world art from prehistoric times to the present. It is an introduction to the ideas that prompt art making and the search for "beauty" and "truth" (aesthetics) in various cultural contexts. It includes an analysis of the language of the visual arts using examples from throughout the world. It also includes an investigation of the artistic techniques and materials used in painting, printmaking, photography, film, ceramics, sculpture and architecture. (Formerly ART 7)
Transfer Credit: CSU; UC

ART 101 (CAN ART 2)
APPRECIATION AND HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher.
This course covers art and its role in human affairs from Prehistory to Gothic, with an emphasis on giving students an understanding and appreciation of all of the visual arts. It is designed to be of interest and value to the art and non-art major alike. (Formerly ART 1)
Transfer Credit: CSU; UC

ART 102 (CAN ART 4)
APPRECIATION AND HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher.
This course covers art and its role in human affairs from the Renaissance to the Rococo, with an emphasis on giving students an understanding and appreciation of all of the visual arts. It is designed to be of interest and value to the art and non-art major alike. (Formerly ART 2)
Transfer Credit: CSU; UC

ART 103
MODERN AND CONTEMPORARY APPRECIATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher.
This course covers art and its role in human affairs from the Neoclassical period to the present with an emphasis on giving students an understanding and appreciation of all of the visual arts. It is designed to be of interest and value to the art and non-art major alike. (Formerly ART 3)
Transfer Credit: CSU; UC

ART 104
AFRICAN ART HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation; ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher, is strongly recommended.
This course is an introduction to the history of African art. Students will explore the background, aesthetics, styles and iconography of Africa through slide presentation, in-class discussions and assigned readings.
Transfer Credit: CSU; UC

ART 105
WOMEN ARTISTS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of women artists from the earliest documentation to the present, predominantly in the Western World. (Formerly ART 5)
Transfer Credit: CSU; UC

ART 106
MEXICAN ART 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher.
This course is a survey of Mexican art history, from Pre-Colombian to Chicano art. It will include an examination of the cultural, socio-political and religious influences that have shaped the art of Mexico. The course will consist of lecture, slide presentation, discussion, and analysis of representative art of the various periods. (Formerly ART 6)
Transfer Credit: CSU; UC

ART 107
ASIAN ART HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher.
Asian art history surveys the arts of India, Thailand, Cambodia, Vietnam, Java, China, Korea and Japan. Architecture, painting, sculpture, printmaking and other arts are examined within their philosophical, religious, intellectual and social contexts. (Formerly ART 8)
Transfer Credit: CSU; UC

ART 108
BLACK IMAGES IN POPULAR CULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher, is strongly recommended.
This course surveys the depiction and development of images of Blacks and the stereotypes created in Western culture. The various means artists have used to counter those stereotypes by using techniques of resistance and counter narratives will be examined. Students will study fine art, comic books, comic strips, cartoons, advertising, literature, music, dance, theatre, cinema, broadcasting and television. This course is not open to students who are enrolled in or who have received credit in HUM 108.
Transfer Credit: CSU; UC

ART 109
GENDER AND SEXUALITY IN ART 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher, is strongly recommended.
This class will investigate the relationship between gender and sexuality through an examination of visual art, cinema, television, video, and advertising. Close attention will be given to how popular and artistic cultures shape identity and representation. This course is not open to students who are enrolled in or who have received credit in HUM 109.
Transfer Credit: CSU; UC

ART 110 (CAN ART 8)
FREEHAND DRAWING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
This is a beginning course in the history and appreciation, theory, and practice of representational and non-objective drawing technique, linear perspective, composition, and presentation. Lectures will include the historical development and appreciation of drawing from Western and non-Western cultures. (Formerly ART 10)
Transfer Credit: CSU; UC

ART 111
INTERMEDIATE
FREEHAND DRAWING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the hands-on studio experience of ART 110. The course will explore abstraction, cubism and conceptual ideas based on music, poetry and film that have affected art and culture. It will also synthesize the traditional concepts of drawing with the contemporary approaches to drawing since the 20th century. Students will analyze cultural influences, themes and movements in art history from the Renaissance to our current avant-garde and relate them to the creative process of drawing. The course is designed to help identify and enhance each student's individual sensibilities. (Formerly ART 11)
Transfer Credit: CSU; UC

ART 112 (CAN ART 24)
LIFE DRAWING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or "C" or higher.
This course teaches how to draw the live model. Students learn the language and the elements of drawing, anatomy, and the perspective of the human form in space. Demonstrations are given on a variety of approaches to drawing the figure. Students develop technique with an appreciation for the inherent beauty of the material they are working with charcoal, conte, colored pastel and watercolor. (Formerly ART 12)
Transfer Credit: CSU; UC

ART 114
STORYBOARD AND
GRAPHIC NOVEL ILLUSTRATION **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course looks at visual storytelling techniques through graphic novels, storyboards, and comic books. Students will learn to effectively communicate a story through pen and ink techniques, draw a pre-visualization for a live-action production, or draw a pre-existing short story. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

ART 115L
PRINTMAKING LAB **1 UNIT**
Class hours: 3 lab
Corequisite: Concurrent enrollment in or prior completion of ART 116 or ART 117 with a grade of Credit or "C" or higher.
This is a lab course intended to complement other courses in the Printmaking curriculum. It is designed to give practical experience in working with the techniques of relief printing, intaglio (etching, aquatint, drypoint, softground, viscosity, and photoetching), screenprinting and photoscreenprinting, collagraphy, embossing, and monotype. The course will increase the skill and creative output of the student in areas of his/her choice. This course may be taken for a maximum of 4 units. (Formerly ART 15)
Transfer Credit: CSU; UC

ART 116 (CAN ART 20)
BEGINNING PRINTMAKING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
This is an introductory course in the theory and practice of printmaking that will expose the student to the historical development and contemporary practice of printmaking as an original art form. The student will explore the processes of relief printmaking (linocut and woodcut) intaglio printmaking (etching, drypoint, and softground), and screenprinting and their contemporary interaction with photographics and digital imagemaking through application and appreciation. Recommended for drawing and painting majors, graphic design majors, and photography majors. (Formerly ART 16)
Transfer Credit: CSU; UC

ART 117
INTERMEDIATE PRINTMAKING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 116 or equivalent with a grade of Credit or "C" or higher.
This is a course designed to further the student's investigation into the aesthetics and techniques of screenprinting, intaglio (aquatint etching softground, whiteground, sugarlift,) multiple color relief printmaking, and collagraphy. Related photographic and digitial image-making techniques will be studied and applied further, such as photo-screenprinting, photo-etching, halftoning, posterization technique, and use of the enlarger, digital camera, flatbed scanner, and slide scanner. This course may be taken for a maximum of 6 units. (Formerly ART 17)
Transfer Credit: CSU; UC

ART 120 (CAN ART 14)
TWO-DIMENSIONAL DESIGN **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
ART 120 is an intensive studio course that introduces the practical and the conceptual aspects of two-dimensional design. Working in both color and black and white, students will use the materials, tools, and techniques of design to create a portfolio. They will study the aestetic functions and formal concerns of line, shape, value, texture, and surface and develop the understanding and vocabulary of the two-dimensional design. (Formerly ART 20)
Transfer Credit: CSU; UC

ART 121 (CAN ART 16)
THREE-DIMENSIONAL DESIGN **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 120 or equivalent with a grade of Credit or "C" or higher.
This course will serve as an introduction to organization and problem solving in three-dimensions with an emphasis on formal concerns. It will also serve as an introduction to the materials, techniques and tools used in the making of three-dimensional forms. This course will emphasize the use and comprehension of the vocabulary of three-dimensional design and its application to the visual image. (Formerly ART 21)
Transfer Credit: CSU; UC

ART 130A
FUNDAMENTALS OF PAINTING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
This course is an introduction to the material and creative processes of painting. Students learn how to think about pictorial space, how to structure composition, the characteristics and handling of paint, and the application of color theory. Painting is primarily from still-life, with the students' personal interpretation and use of imagination encouraged. (Formerly ART 30.1)
Transfer Credit: CSU; UC

ART 130B
FUNDAMENTALS OF PAINTING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 130A or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of ART 130A. The student works more deliberately with the expressive properties of color, value, and the

organization of pictorial space. A variety of still life painting problems provide the student opportunity to discover his or her strengths and artistic persuasion. Lecture and critiques open the student to a deeper sensibility as well as an increased theoretical understanding of painting. (Formerly ART 30.2)
Transfer Credit: CSU; UC

ART 133A
WATERCOLOR PAINTING 3 UNITS
Class hours: 1 lecture/5 studio
Prerequisite: None.
This introductory course pursues the study of the various techniques and methods of watercolor as used by artists today: transparent, opaque, dry brush, glazing, mixed media, egg tempera, air brush, and colored pencils. Emphasis is placed on traditional, modern, and oriental approaches as relative to other art studies, such as drawing, design, calligraphy, oil painting, and history. The student will be directed towards developing skills in the painting of still life, landscape, figure, portrait, and abstraction. (Formerly ART 33.1)
Transfer Credit: CSU; UC

ART 133B
WATERCOLOR PAINTING 3 UNITS
Class hours: 1 lecture/5 studio
Prerequisite: ART 133A or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the procedures and studies begun in ART 133A. Emphasis is on acquiring further skills and experiences in various watercolor techniques and practices. Students are expected to learn how to properly mat, glass, and frame paintings for exhibition and display. (Formerly ART 33.2)
Transfer Credit: CSU; UC

ART 134
WATERCOLOR LANDSCAPE PAINTING I 2 UNITS
Class hours: 1 lecture/3 studio
Prerequisite: None.
This course emphasizes the traditional use of materials and techniques related to watercolor painting. The course will analyze color theory, various paint applications, light logic and perspectives as they relate specifically to watercolor and nature, with landscape as a major focus of subject matter. (Formerly ART 34)
Transfer Credit: CSU; UC

ART 135
WATERCOLOR LANDSCAPE PAINTING II 2 UNITS
Class hours: 1 lecture/3 studio
Prerequisite: None.
Recommendation: ART 134 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes new methods and technical approaches to watercolor painting. The course will analyze color theory, various paint applications, light logic and perspective as they relate specifically to watercolor and nature with landscape as a major focus of subject matter. Beginning with the traditional use of materials and techniques related to watercolor painting, the course is designed to further develop the students' understanding of techniques and personal investigation of watercolor and the landscape. (Formerly ART 35)
Transfer Credit: CSU; UC

ART 136
PAINTING FOR ART MAJORS 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or "C" or higher.
Recommendation: ART 120 or equivalent with a grade of Credit or "C" or higher.
This is a course in painting designed specifically for art majors. Topics include use and manipulation of painting materials and color; depicting mood and sensation; expression of form, edge, and negative space; and devices in composition. Projects include creative thinking as applied to non-objective painting, formal invention, and symbolic imagery. Knowledge of art history is expanded through gallery and museum visits and assigned reading. This course may be taken for a maximum of 6 units. (Formerly ART 36)
Transfer Credit: CSU; UC

ART 144
JEWELRY / METALSMITHING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
Recommendation: None.
This is an introductory course covering the design and technical processes of jewelry and metalsmithing. This course also explores three-dimensional (3-D) concepts, forms, space manipulation, and issues of wearability. The implication and effects of the history and culture of jewelry and body ornamentation are learned through audio/visual lectures and museum visits. Students will be assisted with the production of their own original jewelry design projects. (Formerly ART 74)
Transfer Credit: CSU

ART 145
JEWELRY CASTING AND MOLDS 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 144 or equivalent with a grade of Credit or "C" or higher.
This is the second course in a sequential program covering the design and technical processes of jewelry and metalsmithing. Emphasis will be placed on the continued development of skills in designing and fabrication of jewelry and metalsmithing. The techniques and projects covered are forging/smithing, hollow constructions and casting processes. The study of the history and culture of jewelry and body ornamentation is continued through audio/visual lectures and museum and gallery visits. This class may be repeated for a maximum of 6 units. (Formerly ART 75)
Transfer Credit: CSU

ART 150 (CAN ART 6)
INTRODUCTION TO CERAMICS 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
Recommendation: None.
This course is designed as an introduction to the ideas, techniques, history, and traditional of the art of ceramics. (Formerly ART 50)
Transfer Credit: CSU; UC

ART 151
CERAMICS – WHEELTHROWING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ART 150 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None
Recommendation: None.
This is an introductory course on the use of the potter's wheel. Glaze technology is introduced. This course may be taken for a maximum of 6 units. (Formerly ART 51.1)
Transfer Credit: CSU

ART 152
CERAMICS – HANDBUILDING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ART 150 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course builds on techniques learned in Introduction to Ceramics, ART 150. Emphasis is based on the use of complex hand-forming techniques. Glaze technology is introduced. This course may be taken for a maximum of 6 units. (Formerly ART 51.2)
Transfer Credit: CSU

ART 155
BEGINNING CERAMIC SCULPTURE 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 150 or equivalent with a grade of Credit or "C" or higher.
Recommendation: None.
This course is designed as an introduction to the ideas, techniques, and tradition of the art of ceramic sculpture. This course may be taken for a maximum of 6 units. (Formerly ART 55.1)
Transfer Credit: CSU; UC

ART 156L
CERAMICS LAB **1 UNIT**
Class hours: 4 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: One or more of the following courses: ART 150, ART 151, ART 152, ART ART 155, ART 252, ART 253 or ART 255
Recommendation: None.
This lab course is intended to complement the other courses in the ceramics curriculum. It is designed to give practical experience in the techniques and technology of ceramics, including handbuilding, wheel-throwing, sculpture, surface treatments, and glazing. The course will improve the skills and creativity of students enrolled in the ceramics courses. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

ART 160
LIFE SCULPTURE **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: ART 121 or equivalent with a grade of Credit or "C" or higher.
This is a course designed to introduce the student to the art and technique of sculpting the human figure from observation of a live model. Instruction will include structural analysis of the human figure, human anatomy, the use of the elements and principles of sculpture, and techniques of sculpting the figure in modeling materials. This course may be taken for a maximum of 12 units. (Formerly ART 60)
Transfer Credit: CSU; UC

ART 162 (CAN ART 12)
INTRODUCTION
TO SCULPTURE **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
Recommendation: ART 121 or equivalent with a grade of Credit or "C" or higher.
This course is designed as an introduction to the ideas, techniques, and materials involved in the making of sculptural forms. (Formerly ART 62)
Transfer Credit: CSU; UC

ART 163
THE TECHNIQUES
OF SCULPTURE **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
Corequisite: None.
Recommendation: ART 162 or equivalent with a grade of Credit or "C" or higher strongly recommended.
This course is a continuation of ART 162, Sculpture I. New ideas, techniques, and materials for making sculpture are introduced. This course may be taken for a maximum of 6 units. (Formerly ART 63)
Transfer Credit: CSU; UC

ART 170A
BEGINNING
WOOD SCULPTURE I **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course covers the selection, preparation and use of hand tools as related to wood sculpture. The student investigates the properties and characteristics of wood as a basic three-dimensional design medium. Techniques such as knife carving, gouging, chiseling, rasping, texturing, sanding and finishing will be covered. This course may be taken for a maximum of 4 units. (Formerly ART 80)
Transfer Credit: CSU

ART 170B
BEGINNING
WOOD SCULPTURE II **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: ART 170A or equivalent with a grade of Credit or "C" or higher.
This course covers the use of hand tools and power equipment as related to creating wood objects. The designing of both traditional and contemporary wood-sculpture items will be studied. The areas of lamination, fabrication, and subtractive techniques in advanced projects will be learned. This course may be taken for a maximum of 4 units. (Formerly ART 81)
Transfer Credit: CSU

ART 171
OCCUPATIONAL WORK
EXPERIENCE IN ART **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Art, in a declared Art major. One unit of Occupational Work Experience in Art requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the students/workers, the college, and the employers/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their approved projects are completed. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

ART 180
CALLIGRAPHY I **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
This foundation course explores the history, theory, and techniques which shape letterforms, past and present. Emphasis will be on developing skill and knowledge through the historical study of calligraphy and the manipulation of tools and materials. The Roman style will be studied through a modular approach beginning with linear forms, then broad pen sans serif forms, and finally Humanist Bookhand. An appreciation for color, design, and the aesthetic qualities of letter forms will be stressed in their contemporary usage. This course may be taken for a maximum of 6 units. (Formerly ART 40)
Transfer Credit: CSU

ART 181
CALLIGRAPHY II **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 180 or equivalent with a grade of Credit or "C" or higher.
This course focuses on the development of the Italic letterforms in addition to the continued study of the historical development of letterforms, past and present. Emphasis will be on the continued in-depth development and refinement of calligraphic skills and knowledge. Various styles of Italic will be studied in conjunction with a review of the Roman styles of the previous semester. Calligraphy II will continue to stress an appreciation for the color, design, and aesthetic properties of quality letterforms in their contemporary usage. This course may be taken for a maximum of 6 units. (Formerly ART 41)
Transfer Credit: CSU

ART 182A
LETTERING AND TYPOGRAPHY **3 UNITS**
Class hours: 2 lecture/ 4 studio
Prerequisite: None.
The exploration of lettering and typography, its creation, use and function in printing, packaging, publishing, and advertising constitute the basis for this course. Skills will be developed through practical studio exercises using both hand skills and computer typography. The classification of type styles will be

learned and the basic elements of typography will be explored. (Formerly ART 42)
Transfer Credit: CSU

ART 182B
LETTERING AND
TYPOGRAPHY II **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 182A or equivalent with a grade of Credit or "C" or higher.
The design and application of letterforms requiring increased technical skills and intensive experience in the use of current and computer graphics programs provide the basis for this second semester of lettering and typography. Topics include illustrative lettering, experimental typography, computer-designed letterforms, digital typography and type design. (Formerly ART 42.1)
Transfer Credit: CSU

ART 183
INTRODUCTION
TO ILLUSTRATION **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: ART 110 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
In this course students learn the principles and practices of illustration through the examination of artists and illustrators as well as the understanding of materials, techniques, and practical assignments faced by the illustrator. This course may be taken for a maximum of 6 units. (Formerly ART 113)
Transfer Credit: CSU

ART 183A
COMMERCIAL
BRUSH LETTERING **1 UNIT**
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course explores the history, theory and techniques of brush lettering with an emphasis on designing for commercial applications. The class will focus on hand lettering techniques with manipulation of traditional flat and pointed brushes. This course may be taken for a maximum of 2 units.
Transfer Credit: CSU

ART 183B
COPPERPLATE CALLIGRAPHY **1 UNIT**
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This foundational course explores the history, theory, and techniques which shape letterforms, past and present. Emphasis will be on developing skill and knowledge through the historical study of calligraphy and the manipulation of tools and materials. The Copperplate style will be studied through a modular approach beginning with linear forms, then flexible pointed pen forms. An appreciation for color, design, and the aesthetic qualities of letterforms will be stressed in their contemporary usage. This course may be taken for a maximum of 2 units.
Transfer Credit: CSU

ART 184
GRAPHIC DESIGN I **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 182A or equivalent with a grade of Credit or "C" or higher.
Fundamental studies are conducted in the history, theories, techniques, and practices of graphic design. Emphasis will be placed on the application of basic design principles to graphic design problems in visual communications. Design solutions will explore the potential of layout and design, utilizing illustration, photography, typography, and symbology. (Formerly ART 44)
Transfer Credit: CSU

ART 185
RENDERING I **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or "C" or higher.
Beginning techniques in the delineation of representational subject matter are explored. Emphasis is on sharp focus drawing using black and white media such as pencils, ink, felt tips, as well as colored felt tips and Prismacolor pencils. This course is important to those interested in graphic design, industrial design, and technical illustration. (Formerly ART 45)
Transfer Credit: CSU

ART 186
COMPUTER GRAPHICS
IN ART AND DESIGN **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
This course covers the basic concepts and techniques of computer graphics. The principles of art and design are taught in a studio setting emphasizing hands-on experience. Students create original illustrations using vector-based graphics software. This course may be taken for a maximum of 6 units. (Formerly ART 48)
Transfer Credit: CSU

ART 188
DESIGN FOR
DESKTOP PUBLISHING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
This course covers page design and layout systems for desktop publishing. The principles and terminology of typography are stressed. The scanning of graphic material such as illustrations and photographs will be covered with regard to the requirements of the publishing industry. Hands-on experience is emphasized. This course may be taken for a maximum of 6 units. (Formerly ART 48.1)
Transfer Credit: CSU

ART 189L
COMPUTER GRAPHICS LAB **1 UNIT**
Class hours: 3 lab
Prerequisite: None.
Corequisite: One of the following courses: ART 182A, ART 182B, ART 184, ART 186, ART 188, ART 192, ART 195, ART 196, ART 284, PHOT 110 or PHOT 112.
Recommendation: None.
This course is designed to increase skills in computer graphics systems. Students will receive individual help with on-going projects assigned in corequisite graphics and multimedia classes. Work may be assigned in the following areas; presentation techniques and hand-on software tutorials. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

ART 190
ANIMATION PRINCIPLES **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This class demonstrates the theory of animation principles through practical exercises in hand-drawn cel animation. Students explore the use of animation techniques in contemporary character-based animated narratives. Students will apply concepts of timing, weight, personality and balance to hand drawn animation projects. This class may be taken for a maximum of 6 units.
Transfer Credit: CSU

ART 191A
3D COMPUTER ANIMATION **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will serve as an introduction to 3D computer animation by taking animation principles developed in classical animation and applying those techniques using computer animation software. Particular

emphasis will be placed on character modeling, anthropomorphic techniques, and character modeling. Topics will also include lighting composition, and rendering. Students will animate and render a short narrative as the final project. This course may be taken for a maximum of 6 units. (Formerly ART 191)
Transfer Credit: CSU

ART 191B
3D COMPUTER ANIMATION PROJECT 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ART 191A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will provide students with the opportunity to continue their exploration of 3D computer animation by writing, modeling, storyboarding, and animating an original animation short. Topics will include storyboard creation, shot development, editing, and sound design. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

ART 192
PHOTOSHOP / DIGITAL IMAGING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course covers image editing of photographic media for commercial art direction using Adobe Photoshop and other image editing programs. Topics include scanning basics, image conversion, painting and editing tools, manipulation selections, photographic compositing, masks and layers, color corrections and making color separations. This course may be taken for a maximum of 6 units. (Formerly ART 92)
Transfer Credit: CSU

ART 194
MULTIMEDIA DESIGN 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
This course acquaints students with the use of multimedia programs and the tools they provide to create full featured interactive multimedia prototypes, applications, and presentations for commercial distribution. Class work and lab assignments provide hands-on experience for the students. This course may be taken for a maximum of 6 units. (Formerly ART 94)
Transfer Credit: CSU

ART 195
3D MODELING FOR ANIMATION 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
This course is an overview of interactive three-dimensional modeling and rendering techniques on the Macintosh. The course involves assignments emphasizing and understanding of modeling and rendering software tools, and animation concepts. This course may be taken for a maximum of 6 units. (Formerly ART 95)
Transfer Credit: CSU

ART 196
INTRODUCTION TO DESIGNING WEB GRAPHICS 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 205 or equivalent with a grade of Credit or "C" or higher.
The course introduces students to the principles and design skills essential to designing web pages. The students will use web page creation software and the tools they provide to create full-featured-interactive web sites. This class may be taken for a maximum of 6 units. (Formerly ART 99/ART 96)
Transfer Credit: CSU

ART 197
DIGITAL PAINTING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite; None.
Corequisite: None.
Recommendation: None.
This course is a bridge connecting conventional drawing and painting tools and techniques with their computer counterparts. Specifically, this course explores color theory, art history and conventional media, and demonstrates how to translate foundational art theory using digital painting tools. It addresses the needs of students making the transition from traditional to digital media. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

ART 198
MOTION GRAPHICS 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite; None.
Corequisite: None.
Recommendation: None.
This course addresses the process of communication through typographic animation and visual effects. Emphasis is placed on creating emotional expression and identity through composites of video and text. Topics include the combination of on-screen text and imagery in feature films, broadcast applications, video poetry, and fine art videos. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

ART 213
INTERMEDIATE LIFE DRAWING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or "C" or higher.
In this course students continue the process of learning to draw the live model. Students practice exploring the rhythm and design inherent in the human figure, seeing and understanding the space a form occupies, understanding the kinesthetics of anatomy, and learning the economy of good drawing technique. The history and evolution of drawing as an art form and contemporary purposes in figure drawing are discussed in lectures. This course may be taken for a maximum of 6 units. (Formerly ART 13)
Transfer Credit: CSU; UC

ART 214
SPECIAL STUDIES IN LIFE DRAWING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 213 or equivalent with a grade of Credit or "C" or higher.
This course offers advanced work in figure drawing. Emphasis is placed on the student's development of personal style. The pictorial space of the drawing is given the same importance as in a painting, and the student seeks to elevate the classroom sketch to a well designed and effective work of art. The course considers the relationship between the student's intentions in drawing to his or her work in other media, such as painting or sculpture. Focus is placed on the personal and creative aspects of drawing, how and what a drawing communicates, developing an advanced technique, and using professional materials. This course may be repeated for a maximum of 6 units. (Formerly ART 14)
Transfer Credit: CSU; UC

ART 217L
ADVANCED SCREENPRINTING / ADVANCED ETCHING LAB 1 UNIT
Class hours: 3 lab
Prerequisite; None.
Corequisite: Concurrent enrollment in or prior completion of ART 218 or ART 219 or equivalent with a grade of Credit or "C" or higher.
Recommendation: None.
This is a lab course intended to complement advanced courses in the Printmaking curriculum. It is designed to give practical

experience in working with the techniques of relief printing, intaglio (etching, aquatint, drypoint, softground, viscosity, and photoetching), screenprinting and photo-screenprinting, collagraphy, embossing, monotype and digital imagemaking in conjunction with the traditional printmaking techniques. The course will increase the skill and creative output of the student in areas of his/her choice. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

ART 218
SCREENPRINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 117 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes advanced practice, technique, and historical knowledge of screen-printing as a fine art medium. An important feature of the course will be the study of the materials, stencils, films, blockouts, photomechanical processes, and inks of the screenprinting process Photographic and digital image-making techniques related to photoscreenprinting will be studied and applied further, including use of the enlarger, stat camera, digital camera, flatbed scanner, and slide scanner. Instruction will cover serigraphic flatbed printing as well as use of the rotary press for textile printing. Students will be required to complete particular aesthetic and technical assignments through their prints. This course may be taken for a maximum of 6 units. (Formerly ART 18)
Transfer Credit: CSU; UC

ART 219
ADVANCED ETCHING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 117 or equivalent with a grade of Credit or "C" or higher.
This course is designed to explore the artistic possibilities and various techniques of advanced etching, including grounds, aquatints, photoetching, multiple plate color etching, viscosity printing, collagraphy, and embossing. Related digital imaging and photographic techniques will be presented for integration into the etching process. Students will be required to deal with particular aesthetic issues and techniques. This course may be taken for a maximum of 6 units. (Formerly ART 19)
Transfer Credit: CSU; UC

ART 231
INTERMEDIATE PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 130B or equivalent with a grade of Credit or "C" or higher.
This course is designed for students who want a deeper understanding of painting: its history, theories, creative purposes, and technical skills. Through lectures, discussions, and studio work, students discover, articulate, and bring into being their own artistic identity and style. Practical assistance is given on an individual basis. Emphasis is placed on the student's progression from idea to technical means and visual accomplishment. Students may initiate their own painting projects, or use what subject matter is presented to the class. This course may be taken for a maximum of 6 units. (Formerly ART 31)
Transfer Credit: CSU; UC

ART 232
PORTRAITURE: DRAWING / PAINTING THE HEAD 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to portraiture: its techniques, history, and social uses. Many genres of portraiture will be surveyed to analyze how they give expression to cultural and societal values. Formal portraiture, character stereotypes, images from popular culture, African and Asian masks, the face of the nude, expressionistic psychological portraiture, commercial portrait styles, and the self-portrait, all will be discussed and explored. Live models will pose. This course may be taken for a maximum of 6 units. (Formerly ART 32)
Transfer Credit: CSU; UC

ART 237
LIFE PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or "C" or higher.
This is a painting and lecture course which focuses on the live model as subject matter. The history and philosophy of the figure in art are discussed. Symbolic, expressionistic, allegorical, fantastic, narrative, and abstract styles are surveyed. Drawing and painting techniques and materials are explained. Individual and group critiques are utilized. This course may be taken for a maximum of 6 units. (Formerly ART 37)
Transfer Credit: CSU; UC

ART 238
SPECIAL STUDIES IN PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 136 or ART 237 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course designed for individualized study by the experienced painter. The student is expected to research the historical and contemporary trends in art and the criticism which relate to his or her work. Discussion centers on how the student's work communicates specific meaning and functions within the art world. Projects may be in traditional, transitional, or new forms of painting. This course may be taken for a maximum of 6 units. (Formerly ART 38)
Transfer Credit: CSU; UC

ART 239
PORTRAIT PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 130A or ART 232, or ART 237 or equivalent with a grade of Credit or "C" or higher.
This is a course in the history, theories, techniques, and practice of portrait painting. Creative imagination, color, space, and pictorial structure are included in the study of the portrait. Live models will be used. The student has the option of working in any drawing or painting medium. This course may be taken for a maximum of 6 units. (Formerly ART 39)
Transfer Credit: CSU; UC

ART 246
JEWELRY DESIGN FABRICATION 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 145 or equivalent with a grade of Credit or "C" or higher.
This is the third course in a sequential program covering the design and technical processes of jewelry and metalsmithing. The techniques and projects covered are fabricating a die-formed container, stone setting, mold making, and lost wax casting of multiples. The study of the history and culture of jewelry and body ornamentation is continued through audio/visual lectures and museum and gallery visits. This class may be repeated for a maximum of 6 units. (Formerly ART 76)
Transfer Credit: CSU

ART 248
HOLLOW FORMING
JEWELRY PROCESSES 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 246 or equivalent with a grade of Credit or "C" or higher.
This is the fourth and most advanced course in a sequential program covering the design and technical processes of jewelry and metalsmithing. The techniques and projects covered in this course include designing a suite/set of wearable objects and a set of flatware. Specialized advanced techniques and processes will be taught to match the student's specific artistic objectives and projects. The study of the history and culture of jewelry and metalsmithing is continued through audio/visual lectures and museum, gallery,

commercial and industrial site visits. This class may be repeated for a maximum of 6 units. (Formerly ART 78)
Transfer Credit: CSU

ART 252
CERAMICS –
FORM AND TECHNIQUE **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 151 or ART 152 or equivalent with a grade of Credit or "C" or higher.
This course is continues the exploration and development of forms and techniques encountered in ART 151 and ART 152. The student is expected to determine some of the projects for the semester's work. This course may be taken for a maximum of 6 units. (Formerly ART 52)
Transfer Credit: CSU; UC

ART 253
CERAMICS –
FORM AND CONTENT **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 252 or equivalent with a grade of Credit or "C" or higher.
This course is designed for individualized study by the ceramist with at least three semesters of prior experience at the college level. Students will be expected to write a proposal for work to be accomplished during the semester. Clay technology and kiln firing technique will be introduced. This course may be taken for a maximum of 6 units. (Formerly ART 53)
Transfer Credit: CSU; UC

ART 255
INTERMEDIATE
CERAMIC SCULPTURE **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 155 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of ART 155. New ideas, techniques and approaches to making ceramic sculpture are introduced. This course may be taken for a maximum of 6 units. (Formerly ART 55.2)
Transfer Credit: CSU; UC

ART 264
SCULPTURE - STONECARVING **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
Corequisite: None.
Recommendation: ART 163 or equivalent with a grade of Credit or "C" or higher strongly recommended.
This course is designed to extend the student's knowledge and skill in the specific discipline of subtractive sculpture. The student will learn how to make sculpture by traditional stonecarving techniques. This course may be taken for a maximum of 9 units. (Formerly ART 64)
Transfer Credit: CSU; UC

ART 270
WOOD LATHE ART **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: ART 171 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: ART 120 or equivalent with a grade of Credit or "C" or higher.
This course covers wood lathe processes as applied to creating art objects. The student learns the two main methods of lathe turning: scraping and shear cutting. Project design, aesthetics, wood selection and finishing are studied. This course may be repeated for a maximum of 4 units. (Formerly ART 69.82/ART 82)
Transfer Credit: CSU

ART 271
CARVING TOOL MAKING **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: ART 171 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course involves techniques in designing and making wood carving tools. Types covered include knives, chisels, and gouges. Steel selection and heat treating are also covered. This course may be repeated for a maximum of 4 units. (Formerly ART 83)
Transfer Credit: CSU

ART 284
GRAPHIC DESIGN II **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 184 or equivalent with a grade of Credit or "C" or higher.
Continued studies in the theories, techniques, and practices of graphic design for visual communications are undertaken. Emphasis is on more advanced techniques and studies of problems in visual communications. Design solutions will be taken from the initial concept through refinement to camera-ready art for print production. Students acquire expertise in the use of process cameras, phototypesetters, and additional equipment. (Formerly ART 44.1)
Transfer Credit: CSU

ART 285
RENDERING II **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: ART 185 or equivalent with a grade of Credit or "C" or higher.
Experimental and advanced techniques in the delineation of representational subject matter emphasize the use of color in creating sharp focus drawing. Pencils, colored inks, felt tips, watercolor, gouache, and acrylic will be used. This class is important for those interested in graphic design, industrial design, and technical illustration. (Formerly ART 45.1)
Transfer Credit: CSU

ART 287A
LETTER ARTS **2 UNITS**
Class hours: l lecture/3 studio
Prerequisite: ART 181 or equivalent with a grade of Credit or "C" or higher.
This intermediate course of study focuses on the artistic and aesthetic uses of letterforms as cultural and communicative forces in society. Students will progress toward the development of professional skills and techniques in the application of lettering, calligraphy and typography to creative and expressive concepts. Historical and contemporary methods, materials and usage will be explored through a variety of projects. This course may be taken for a maximum of 4 units. (Formerly ART 47)
Transfer Credit: CSU

ART 287B
ROMAN CALLIGRAPHY **2 UNITS**
Class hours: l lecture/3 studio
Prerequisite: ART 287A or equivalent with a grade of Credit or "C" or higher.
This course is designed to develop analytical methods and to increase performance skills in the evaluation of letter structure and the shaping of historical letterform styles. Students will develop the ability to modify historical styles of letterforms for contemporary applications in aesthetic and communicative areas. Expertise and knowledge will be expanded through the exploration of tools, materials, and techniques. This course may be taken for a maximum of 6 units. (Formerly ART 69.4/ART 47.1)
Transfer Credit: CSU

ASTRONOMY

(Science / Engineering / Math Division)

ASTR 101
ELEMENTARY ASTRONOMY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This is an introductory survey course in the general principles and fundamentals of astronomy. It is designed primarily for non-science majors, physical science general education credit at transfer institutions. (Formerly ASTR 1)
Transfer Credit: CSU; UC

ASTR 102
INTRODUCTORY ASTRONOMY: STARS AND THE UNIVERSE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a non-technical introduction to astronomy, with emphasis on stars, galaxies, and the origin and evolution of the universe. Topics include the nature of light, the atom, and telescopes; the birth, evolution, and death of stars; the Milky Way Galaxy; normal, active, and cannibal galaxies; and the Big Bang model. This course is not open to students with credit in ASTR 101. (Formerly ASTR 1.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: ASTR 102 and ASTR 103 combined: maximum credit, one course. No credit for ASTR 102 or ASTR 103 if taken after ASTR 101.*

ASTR 103
INTRODUCTORY ASTRONOMY: THE SOLAR SYSTEM 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a non-technical introduction to astronomy, with emphasis on the Sun, planets, moons, and smaller bodies which make up the solar system. Topics include the nature of light, the atom, telescopes, an examination of the planets and their moons and rings, the origin of the solar system, comets, asteroids, and meteors, catastrophic events, and the search for planets around other stars. This course is not open to students with credit in ASTR 101. (Formerly ASTR 1.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. ASTR 102 and ASTR 103 combined: maximum credit, one course. No credit for ASTR 102 or ASTR 103 if taken after ASTR 101.*

ASTR 104
LIFE IN THE UNIVERSE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a non-technical introduction to the theory of the origin of life in the universe with emphasis on the origin of terrestrial life in the solar system. Topics include the laws of nature, the double helix of life, the origin of the DNA (Deoxyribonucleic Acid) strand, the proliferation of carbon based life forms, speculation on the nature of non-carbon based life, the evolution of intelligence, and the search for extraterrestrial life.
Transfer Credit: CSU; UC

ASTR 105L
OBSERVATIONAL ASTRONOMY 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: One of the following courses, ASTR 101, ASTR 102, ASTR 103 or ASTR 106, or prior completion with a grade of Credit or "C" or better.
Recommendation: None.
This is a laboratory course in practical astronomical observations and studies designed for the student with an interest in the use of telescopes and instruments. An opportunity will be provided for additional study as a supplement to the lecture course. Occasional evening observing sessions are required. (Formerly ASTR 5/ASTR 101L)
Transfer Credit: CSU; UC

ASTR 106
HISTORY OF ASTRONOMY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course explores humanity's changing view of the cosmos and its place in that cosmos from the earliest times to the present. Topics include comparative cosmologies of ancient culture, the Copernican revolution, the Enlightenment, and the modern view of the universe developed over the last two centuries. Course work includes readings about figures and projects using models of historic instruments.
Transfer Credit: CSU; UC

AUTOMOTIVE COLLISION REPAIR (AUTOBODY)

(Technology Division)

AB 50A
BODY TRIM AND MINOR REPAIRS 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is one in a series of hands-on short courses which prepares students for employment as a collision repair technician apprentice. Major emphasis will be placed on removal and replacement of external panels, bumpers, lights, and trim. Repair of minor body panel dents and the use of power and hand tools will be covered. This course may be taken for a maximum of 2 units.

AB 50B
PANEL REPLACEMENT 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: AB 50A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is one in a series of hands-on short courses which prepares students for employment as a collision repair technician apprentice. Major emphasis will be place on removal and replacement of more complex external panel assemblies, doors, tailgates, rear hatches etc. Content will also include repair of more complex non-structural body panels, introduction of additional power and hand tools, water leak and wind noise detection and correction. This course may be taken for a maximum of 2 units.

AB 50C
STRUCTURAL REPAIR SET-UP 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: AB 50A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is one in a series of hands-on short courses which prepares students for employment as a collision repair technician apprentice. Major emphasis will be place on diagnosis and repair of structural damage and welding. A variety of methods of measuring structural damage will be utilized including trams, gauges and laser measuring devices. This course may be taken for a maximum of 2 units.

AB 51
NON-STRUCTURAL DAMAGE REPAIR 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
This course will covers basic aspects of the automotive collision repair trade. Major emphasis is placed on orienting the student to safe use of specific automotive welding procedures, uses of basic power and hand tools, use of fillers, and metal straightening techniques. It also includes discussion of automotive design, nomenclature, and non-structural damage analysis. (Formerly AB 11)

AB 52
STRUCTURE DAMAGE REPAIR 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is part of an instructional package for the student who wishes additional knowledge in automotive collision repair. It

introduces the student to unitized and space-frame construction, high strength steel components, chassis design, sheet metal straightening techniques, alignment and installation of body parts. Also included is safety related to electrical problems, introduction of plastic components and continued welding and metallurgical experience. This course may be taken for a maximum of 9 units. (Formerly AB 21)

AB 53
SUSPENSION, ALIGNMENT AND POWER TRAIN DAMAGE 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course introduces students to wheel alignment, suspension systems, and power train problems related to automotive collisions. Related topics include: frame straightening systems, measurement and gauging for damage, cooling and electrical components, and continued welding and metallurgical experience. This course may be taken for a maximum of 9 units. (Formerly AB 31.1)

AB 54
ADVANCED DESIGN AUTOMOTIVE PANEL REPAIR 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course emphasizes alignment and repair of advanced design automotive body panels such as tempered sheet metal, aluminum, plastics, fiberglass and composites. Additional topics include repair and installation of structural members, removal and replacement of electrical and electronic components and related interior parts. This course may be taken for a maximum of 9 units. (Formerly AB 41)

AB 55
STRUCTURAL PANEL REPLACEMENT 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course emphasizes frame and structural repair. Instruction includes repair and replacement of structural body panels, removal and replacement of power train and supports, gauging and analysis of major structural damage, plus the measuring and alignment of strut towers. Appropriate safety related instructions would be included in each segment. This course may be taken for a maximum of 9 units. (Formerly AB 42)

AB 56
NON-STRUCTURAL AUTOMOTIVE WELDING 2 UNITS
Class hours: 1.5 lecture/2.5 lab
Prerequisite: None.
This course introduces students to oxy-acetylene, Gas Metal Arc Welding (GMAW), stick arc, and pressure resistance welding. It is designed for the student who is presently employed in the automotive field. Related technical subjects include safety, testing of weld joints, design, strength of materials, process selection, cutting methods and metals identification. A major focus of this course is to prepare students to complete the I-CAR GMAW Certification Test. (Formerly AB 12)

AB 57
STRUCTURAL AUTOMOTIVE WELDING 2 UNITS
Class hours: 1.5 lecture/2.5 lab
Prerequisite: AB 56 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course further develops student skills in the use of Gas Metal Arc Welding (GMAW) equipment and methods related to the repair, maintenance and alteration of the automobile structure. Special emphasis will be placed upon GMAW of structural high strength steel, aluminum welding, plasma arc and oxyacetylene cutting. A major focus of this course is to prepare students to complete the I-CAR GMAW Certification Test. Appropriate safety related instructions are included in each segment. This course may be taken for a maximum of 6 units. (Formerly AB 22)

AB 58
COLLISION REPAIR UPDATE 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51, AB 52, and AB 53 or equivalent courses with grades of Credit or "C" or higher, or appropriate work experience. AB 54 may be substituted for AB 53.
This course increases skills and knowledge by updating the student in areas of their choice. Update areas would include refinishing of plastics, advanced design automotive components, metal finishing, complex frame and structural repair, and advanced welding. This course may be taken for a maximum of 13.5 units. (Formerly AB 48/AB 70)
Transfer Credit: CSU

AB 59A
COMPUTERIZED MEASURING TRAINING 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: Proficient in MS Windows software applications.
The focus of this course is for students to become proficient in the operation and use of Computerized Measuring Training. (CMT). Students will learn to properly identify vehicles, components and systems, select and install the appropriate scan targets and attachments onto various vehicles, and provide digital measuring with the Genesis computerized measuring system. Topics include basic collision theory, damage analysis fundamentals, maintenance, and operation of the Genesis2 and Velocity laser measuring systems. The processes and methods used within the software program and laser scanners will be reviewed extensively. This course may be taken for a maximum of 2 units. (Formerly AB 59)

AB 59B
UNITIZED BODY ANALYSIS AND REPAIR PLANNING 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: AB 51 or AB 59A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: Current or previous employment in collision repair facility.
This course introduces students to the concepts of damage analysis and repair planning for unitized body vehicles. It is designed for structural repair technicians and students with limited training in structural repair. The course presents case studies that give students the information needed to measure, analyze, and develop repair plans for damaged unitized structures. It provides foundation information for intermediate and advanced analysis and repair courses. This course may be taken for a maximum of 2 units.

AB 59C
FULL FRAME ANALYSIS AND REPAIR PLANNING 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: AB 51, AB 59A or AB 59B or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: Current or previous employment in collision repair facility.
This course expands student learning of damage analysis and repair planning to include full-frame vehicles (pickups and sport utility vehicles). Additional case studies of damaged full-frame vehicles will be presented that give technicians the information needed to measure, analyze, and develop appropriate repair plans. The additional information in

this course is fundamental for success in more advanced damage analysis and repair courses. This course may be taken for a maximum of 2 units.

AB 59E
FULL FRAME REPAIR-GAUGES 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: AB 51 or AB 59B or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation; None.
This course furthers student learning in full-frame damage analysis and repair with universal measuring gauges. Included topics are full-frame vehicle design analysis, effects of collisions on various full-frame designs, full-frame damage assessment using universal measuring gauges, full-frame vehicle hook-up and repair options, and methods of determining repair completion with universal measuring gauges. This course may be taken for a maximum of 2 units.

AB 60A
SANDING AND PAINT PREPARATION 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is one in a series of hands-on short courses which prepares students for employment as an automotive refinishing apprentice. Major emphasis will be placed on removal and installation of moldings and trim, sanding and preparation of substrate finish, and the use of two-component putty. This course may be taken for a maximum of 2 units.

AB 60B
MIXING AND APPLICATION OF PAINT 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is one in a series of hands-on short courses which prepares students for employment as an automotive refinishing apprentice. Major emphasis will be placed on bare metal preparation, mixing and application of primers and topcoats, and blending of paint finishes. This course may be taken for a maximum of 2 units.

AB 60C
PAINT DEFECTS: CAUSES AND CURES 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: AB 60A and AB 60B or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is one in a series of hands-on short courses which prepares students for employment as an automotive refinishing apprentice. Major emphasis will be placed on solving paint application problems and finish defects, causes and cures. This course may be taken for a maximum of 2 units.

AB 61
PREPARATION AND SPOT REFINISHING 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course introduces beginning techniques for automotive refinishing preparation and spot painting techniques. This course includes basic use of abrasives, primers, fillers, and sealers. Students are instructed in the use of solvents, pre-coat, and basic material problems encountered in today's refinishing market. This course may be taken for a maximum of 9 units. (Formerly AB 25)

AB 62
OVERALL AND MULTI-COAT REFINISHING 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course develops the skills of the professional automotive refinisher in Overall Multi-Coat and Refinishing. Students will be instructed in the art of tinting colors, spot repair of factory and after-market multi-coat finishes, overall refinishing, interior/exterior care and maintenance, and the refinishing of plastic components. The course includes the testing, research and development of current refinishing materials. I-CAR certification criteria will be incorporated in the training and discussions. This course may be taken for a maximum of 9 units. (Formerly AB 35)

AB 63
PRODUCTION REFINISHING 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
In this course students learn to prepare and refinish several vehicles simultaneously. Areas covered include repair of minor body dings, paint preparation, mixing of multiple colors, plus the masking and painting of up to three separate vehicles of varying models, color, and types. This course provides students with hands-on techniques for increasing the volume of vehicles processed in the professional automotive refinishing environment. This course may be taken for a maximum of 18 units. (Formerly AB 35.1)

AB 65
MIXING AND ADJUSTING COLOR 2 UNITS
Class hours: 1.5 lecture/2.5 lab
Prerequisite: None.
This course increases the marketable skills for the automotive refinisher in the trade. Emphasis is on color and texture duplication, the use of automotive toners to scratch paint mix and to mix specific colors using formulas and tintometers. It also includes spray-blending techniques, compatibility, troubleshooting of materials, and paint chemistry. This course may be taken for a maximum of 6 units. (Formerly AB 33.1/AB 2)

AB 66
LETTERING, STRIPING AND DESIGN 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course trains students in the arts of automotive lettering, graphic design, and pin-striping. Students work with lines, colors, and harmonizing/contrasting concepts to create special effects on commercial and passenger vehicles using a wide range of materials and techniques. Included in this course are the use of computer-generated graphics, stencil making, hand pin-striping, and air-brushing. This course may be taken for a maximum of 5 units. (Formerly AB 45)

AB 68
REFINISHING UPDATE 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 61, AB 62, and AB 63 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
This course is designed to increase skill and knowledge as well as update students in automotive refinishing areas of their choice. It will emphasize automotive refinishing and plastic repair techniques, panel and spot painting, sanding and preparation techniques, and overall and multi-coat painting. This course may be taken for a maximum of 18 units. (Formerly AB 49/AB 71)

AB 73/74
AUTOMOTIVE COLLISION REPAIR OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Automotive Collision Repair work experience 73 or 20 hours of employment per week for Automotive Collision Repair work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Concurrent enrollment in the Automotive Collision Repair vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Automotive Collision Repair students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units.

AB 75
BODY PANEL MODIFICATION 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course emphasizes design and fabrication of automotive body panels. Additional topics include customization of existing body panels, partial-panel fabrication, metal finishing, fabrication welding techniques and the application and use of the sheet metal brake, sheer, shrinker/stretcher, and bead roller. This course may be taken for a maximum of 9 units.

AB 80
AUTOBODY CUSTOMER SERVICE 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on effective customer service in an automotive collision repair facility. Students learn appropriate use of collision repair industry terminology, measuring and improving levels of customer service, interpreting body language, conflict resolution, telephone and in-person communication skills, personal conduct and business ethics, and the completion of paperwork related to autobody customer service positions. This course may be taken for a maximum of 8 units. (Formerly AB 50)

AB 80A
VEHICLE STAGING 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: None.
Corequisite: None.
Limitation of Enrollment: Students must have valid and current drivers' license and proof of appropriate automobile insurance.
This is one in a series of hands-on short courses which prepare students for employment as a porter in an automotive shop operation. Major emphasis will be placed on safe driving and parking, vehicle clean up, customer contact, and the staging of vehicles within an automotive repair facility at the start and end of each day. This course may be taken for a maximum of 2 units.

AB 80B
DAMAGE ANALYSIS AND AUTOMOTIVE SYSTEMS 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is one in a series of hands-on short courses which prepares students for employment as an automotive office assistant. Major emphasis will be placed on damage analysis, estimating the cost of repair, legal and environmental practices, and vehicle systems knowledge. This course may be taken for a maximum of 2 units.

AB 80C
VEHICLE TYPES AND CUSTOMER RELATIONS 1 UNIT
Class hours: 0.75 lecture/1.25 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is one in a series of hands-on short courses which prepares students for employment as an automotive office assistant. Major emphasis will be placed on vehicle construction types, fasteners and materials, parts acquisition sources and customer relations. This course may be taken for a maximum of 2 units.

AB 83A
COMPUTERIZED DAMAGE ESTIMATING-ADP 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The focus of this course is for students to become proficient in Automated Data Processing (ADP) collision damage estimating program. Students will learn to properly identify vehicles, components and systems, and to select and input the appropriate replacement parts and labor costs into a computerized damage report. Topics include development of customer and insurance company profiles, maintenance of user accounts, the generation of supplemental damage reports and the use of software-specific part codes, as currently used in the collision repair industry. The processes and methods used within the ADP software program will be reviewed extensively. This course may be taken for a maximum of 3 units.

AB 83C
COMPUTERIZED DAMAGE ESTIMATING-CCC 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The focus of this course is for students to become proficient in CCC collision damage estimating program. Students will learn to properly identify vehicles, components and systems, and to select and input the appropriate replacement parts and labor costs into a computerized damage report. Topics include development of customer and insurance company profiles, maintenance of user accounts, the generation of supplemental damage reports and the use of software-specific part codes, as currently used in the collision repair industry. The processes and methods used with the CCC software program will be reviewed extensively. This course may be taken for a maximum of 3 units.

AB 83M
COMPUTERIZED DAMAGE ESTIMATING-MITCHELL 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The focus of this course is for students to become proficient in Mitchell Information Systems (Mitchell) collision damage estimating program. Students will learn to properly identify vehicles, components and systems, and to select and input the appropriate replacement parts and labor costs into a

computerized damage report. Topics include development of customer and insurance company profiles, maintenance of user accounts, the generation of supplemental damage reports and the use of software-specific part codes, as currently used in the collision repair industry. The processes and methods used within the Mitchell software program will be reviewed extensively. This course may be taken for a maximum of 3 units.

AB 86
PRODUCTION MANAGEMENT 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on production management and improving workflow in automotive repair facilities. The course includes job analysis, task prioritizing, job descriptions, flow-charting, capacity planning, parts and material procurement, production controls, cycle-time analysis, and development of key controls for management. This course may be taken for maximum of 4 units. (Formerly AB 52)

AB 88
ESTIMATING AND MANAGEMENT UPDATE 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: Nine units of collision repair estimating and/or management or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course increases skills and knowledge in collision repair estimating, management, and customer relations for students considering a career in the auto body repair industry. It includes computerized automotive damage estimating, shop management, customer relations, and communications. This course may be taken for a maximum of 12 units. (Formerly AB 49.1/AB 72)

AB 181
NON-STRUCTURAL DAMAGE ESTIMATING 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to develop skills in effective non-structural collision damage estimating. Emphasis is placed on body construction types and designs, welding and repair methods, mechanical and suspension components, and safety systems as related to damage estimating. Students complete handwritten estimates itemizing cost of labor, materials, and parts required to restore vehicles to pre-accident condition. Areas of training include the basic estimating process, hand-written estimates, automotive systems analysis, body and fender repair times, industry standard times for part replacements, and procedure page logic (P-Page Logic) from collision estimating guides. Computer estimating is introduced as students demonstrate increased estimating proficiency. This course may be taken for a maximum of 6 units. (Formerly AB 24/AB 1)
Transfer Credit: CSU

AB 182
STRUCTURAL DAMAGE ESTIMATING 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: AB 181 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course extends student skills in effective collision damage estimating. The course presents the wide range of skills needed to effectively inspect and analyze structural damage to vehicles, determine the extent of damage and select preferred methods of repair. Students will write handwritten and computerized damage reports, itemizing labor, materials, and parts costs required to restore the vehicle pre-accident condition. Additional areas of training include automotive industry standards, rules and regulations, identification of estimator job functions, and methods of determining levels of customer service index (CSI). Electronic estimating skills will be developed. This course may be taken for a maximum of 6 units. (Formerly AB 34.1/AB 82)
Transfer Credit: CSU

AB 183
COMPUTERIZED DAMAGE ESTIMATING 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The focus of this course is for students to become proficient in software-specific collision damage estimating program. Students will learn to properly identify vehicles, components and systems, and to select and input the appropriate replacement parts and labor costs into a computerized damage report. Topics include development of customer and insurance company profiles, maintenance of user accounts, the generation of supplemental damage reports and the use of software-specific part codes, as currently used in the collision repair industry. The processes and methods used within the software program will be reviewed extensively. This course may be taken for a maximum of 6 units. (Formerly AB 34.2/AB 83)
Transfer Credit: CSU

AB 281
STRUCTURAL DAMAGE ANALYSIS FOR ESTIMATORS 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: AB 51, AB 181, or AB 182 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: Current or previous employment in collision repair facility.
This course is designed to help the collision damage estimator, appraiser and student better understand the process of analyzing structural and suspension damage. Collision theory, industry terminology, structural design, the visual inspection process and measuring and repair equipment are covered in the course. Anchoring and pulling concepts are described in detail. This course may be taken for a maximum of 2 units.
Transfer Credit: CSU

AB 282
STEERING AND SUSPENSION FOR DAMAGE ESTIMATORS 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: AB 281 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: Current or previous employment in collision repair facility.
This course is designed to assist the collision damage estimator, appraiser and student to better understand the process of analyzing steering and suspension damage from collisions. It builds on student knowledge gained from the prerequisite course and assists in mastery of steering and suspension damage analysis. Specialized procedures to verify steering and suspension alignment are practiced herein.
Transfer Credit: CSU

AB 283
ADVANCED FRAME ANLAYSIS FOR ESTIMATORS 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: AB 52, AB 281 or AB 282 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: Current or previous employment in collision repair facility.
This course is designed to build on student knowledge gained from the prerequisite

course and to assist in mastery of collision damage analysis. The focus of this course expands damage analysis specifically for pickup trucks and sport utility vehicles.
Transfer Credit: CSU

AB 285
COLLISION REPAIR MANAGEMENT **3 UNITS**
Class hours: 2 1/2 lecture/1 1/2 lab
Prerequisite: None.
Recommendation: None.
This course focuses on effective management and operation of automotive repair facilities. Students are introduced to skills required for effective management and promotion of an automotive repair facility. Areas of training include development of policies, rules and regulations, job-costing, equipment and material procurement, facility cost analysis, safety, employee and right-to-know issues, and warranties. Other topics include department operations, job functions, compensation packages, production controls, capacity planning, cycle-time analysis, customer satisfaction, licensing and certification, effective communication skills, process improvement, and time management. This course may be taken for a maximum of 6 units. (Formerly AB 51/AB 85)
Transfer Credit: CSU

AB 287
ADVANCED COLLISION REPAIR MANAGEMENT **2 UNITS**
Class hours: 2 lecture
Prerequsiite: None.
Corequisite: None.
Recommendation: None.
This course includes presentation of the wide range of skills required to effectively direct manage and promote a multi-location collision repair facility. Areas of advanced training include rules and regulations related to the automotive repair industry, job costing, equipment and material procurement, facility cost analysis, department operations, safety, employee and right-to-know issues, warranties, customer satisfaction, licensing and certification, from the perspective of consolidator and/or franchise body shop operations. This course may be taken for a maximum of 8 units. (Formerly AB 53)
Transfer Credit: CSU

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY

(Technology Division)

AUTO 1
ENGINE MAINTENANCE **0 UNIT**
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive engines, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive engines and enter the work environment with basic skills. (Formerly AUTO 1.1)

AUTO 2
FUEL SYSTEMS **0 UNIT**
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive fuel systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive fuel systems and enter the work environment with basic skills. (Formerly AUTO 1.2)

AUTO 3
LUBRICATION AND COOLING **0 UNIT**
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive lubrication and cooling systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive lubrication and cooling systems and enter the work environment with basic skills. (Formerly AUTO 1.3)

AUTO 4
ELECTRICAL SYSTEMS **0 UNIT**
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive electrical systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive electrical systems work environment with basic skills. (Formerly AUTO 1.4)

AUTO 5
BRAKES AND SUSPENSION **0 UNIT**
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive brake and suspension systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive brake and suspension systems and enter the work environment with basic skills. (Formerly AUTO 1.5)

AUTO 6
TRANSMISSION AND DRIVE TRAIN **0 UNIT**
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive transmission and drive train systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive transmission and drive train systems and enter the work environment with basic skills. (Formerly AUTO 1.6)

AUTO 8 (Not degree applicable)
FORD ELECTRONIC ENGINE CONTROLS EEC 3 & 4 **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosing of Ford electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection. (Formerly AUTO 50)

AUTO 9 (Not degree applicable)
CHRYSLER ELECTRONIC FUEL INJECTION **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and

diagnosing of Chrysler electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection. (Formerly AUTO 51)

AUTO 10 (Not degree applicable)
GENERAL MOTORS FUEL INJECTION **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosing of General Motors electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection. (Formerly AUTO 52)

AUTO 11 (Not degree applicable)
FOUR WHEEL ALIGNMENT **1 UNIT**
Class hours: 1 lecture/demonstration
Prerequisite: None.
Theory/practical course on the principles of four wheel alignment. Computerized equipment will be used to demonstrate advanced shop procedures. (Formerly AUTO 53)

AUTO 12 (Not degree applicable)
GENERAL MOTORS CLIMATE CONTROL **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosis of General Motors Control Systems; trouble shooting, testing and repair techniques will be included. (Formerly AUTO 54)

AUTO 13 (Not degree applicable)
SPECIALIZED ELECTRONICS TRAINING **2.5 UNITS**
Class hours: 2.25 lecture/2.25 lab
Prerequisite: None.
This course is a study of the principles of automotive electronics to include fundamentals, circuits, meter use, repair, and microprocessors. (Formerly AUTO 56)

AUTO 14 (Not degree applicable)
IMPORT FUEL INJECTION SYSTEMS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosing of Nissan, Toyota, and Bosch electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection. (Formerly AUTO 57)

AUTO 34
FORD MAINTENANCE AND LIGHT REPAIR FOR ELECTRICAL AND ELECTRONIC SYSTEMS **2.5 UNITS**
Class hours: 4 lecture/4 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a theory/practical course in electricity and automotive electronic systems, such as batteries, Ford audio systems, and supplemental restraints. The content will be presented on a single manufacturer's product line. This course may be taken for a maximum of 5 units.

AUTO 35
FORD MAINTENANCE AND LIGHT REPAIR FOR STEERING AND SUSPENSION SYSTEMS **2.5 UNITS**
Class hours: 4 lecture/4 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a theory/practical course in basic steering and suspension on a single manufacturer's car line. Included are operating principles, component description, diagnosis, repair and service adjustments. This course may be taken for a maximum of 5 units.

AUTO 36
FORD MAINTENANCE AND LIGHT REPAIR FOR BRAKE SYSTEMS **2.5 UNITS**
Class hours: 4 lecture/4 lab. (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a theory/practical course in basic brake and anti-lock brakes on a single manufacturer's car line. Included are operating principles, component description, diagnosis, repair, and service adjustments. This course may be taken for a maximum of 5 units.

AUTO 37
FORD MAINTENANCE AND LIGHT REPAIR FOR CLIMATE CONTROL SYSTEMS **2.5 UNITS**
Class hours: 4 lecture/4 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a study of the principles of automotive air conditioning systems. The tools, skills, and processes necessary to perform the most common and essential air conditioning service procedures are studied and demonstrated in the shop. All instruction will be done on a single manufacturer's unit. This course may be taken for a maximum of 5 units.

AUTO 50
INTRODUCTION TO AUTOMOTIVE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This introductory course deals with the basic systems of the modern automobile with emphasis on operating principles. Major areas of instruction will include electrical, engine, transmission, brake and accessory systems. The course is designed as an entry level automotive offering so students may survey the automotive service industry. (Formerly AUTO 10)

AUTO 51
AUTOMOTIVE AIR CONDITIONING **4 UNITS**
Class hours: 10 lecture/10 lab (6 weeks)
Prerequisite: AUTO 231 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the principles of automotive air conditioning systems. The tools, skills, and processes necessary to perform the most common and essential air conditioning service procedures are studied and demonstrated in the shop. All instruction will be done on a single manufacturer's unit. (Formerly AUTO 18.1)

AUTO 52
AUTOMOTIVE PRODUCT ANALYSIS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is one in a series of GM PASS courses designed to bring the student to an entry-level position as a sales consultant within the General Motors dealership organization. This course develops product knowledge and consumer benefit from a product, financing and sales practices perspective. Emphasis is on GM automobile product line mix and competitive advantages. This course is designed to enhance personal skills in marketing and selling within the GM dealership sales department organization. (Formerly AUTO 69.14/AUTO 81)

AUTO 53
AUTOMOTIVE GM / ADVANCED CONSULTATIVE SELLING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: AUTO 73/74 or equivalent student internship with GM dealership, and BA 121 or equivalent with grades of Credit or "C" or higher.
This course is one in a series of GM PASS courses designed to bring the student to an entry-level position as a sales consultant within the General Motors dealership organization. It introduces the participants to the advanced skills necessary to begin selling automobiles through more pro-active customer-oriented sales efforts. Emphasis is placed on the development and practice of advanced professional sales techniques in the area of consultative value selling. (Formerly AUTO 69.15/AUTO 82).

AUTO 54
INTRODUCTION TO ELECTRIC VEHICLES **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: None.
This course introduces the student to the world of Electric Vehicle Conversions. Students will be instructed with alternatives to gasoline powered vehicular travel and to the specific advantages of Electric Powered Automobiles. Topics to be included are: the process of conversion of a gas-powered vehicle to electric power, including the testing, assembly, operation and maintenance of EV's, the disassembly and re-assembly of an EV, introduction to battery and charging systems, optional power accessories and EV drive systems. Appropriate safety related instructions will be included in each segment. This course may be repeated for a total of 8 units. (Formerly AB 69.9/AUTO 90)

AUTO 55
ADVANCED TECHNOLOGY ELECTRIC VEHICLES **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: None.
This course develops students skills in electric vehicle conversions and introduces them to advanced technology EV's and purpose-built EV's. Students will work with hybrid electric vehicles and advanced design EV's. Topics included are the conversion process of kit cars to electric power, including the testing, assembly, operation and maintenance of EV's; the benefits of aerodynamic designs for EV's; introduction to advanced technology batteries and intelligent charging systems; optional hydrogen fuel cell technology; and alternative EV drive systems. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 8 units. (Formerly AB 69.8/AUTO 91)

AUTO 73 / 74
AUTOMOTIVE MECHANICAL REPAIR OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Automotive Mechanical Repair work experience 73 or 20 hours of employment per week for Automotive Mechanical Repair work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Enrollment in the Automotive Mechanical Repair vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Automotive Mechanical Repair students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units.

AUTO 80
BUREAU OF AUTOMOTIVE REPAIR (BAR) ASE ALTERNATIVE COURSES FOR ADVANCED EMISSIONS SPECIALIST **5 UNITS**
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This alternative course will meet and exceed the Bureau of Automotive Repair (BAR) for Automotive Service Excellence (ASE) certifications for the following areas: Electrical, Engine Performance, and Advanced Engine Performance. This course meets theory/practical requirements for obtaining the state license for Advanced Smog Technician.

AUTO 81
INTRODUCTION TO INTELLIGENT VEHICLE AND TRANSPORTATION SYSTEMS **3 UNITS**
Class hours: 3 lecture
Prerequisite; None
Corequisite: None.
Recommendation: None.
This survey course introduces the student to Intelligent Transportation Systems (ITS). Topics discussed include the history of ITS, government and industry organizations and standards, recent technological advances, navigation, wireless communication, telecommunications, traffic safety, and traffic management. The material focuses on current trends and opportunities in the field of Intelligent Transportation Systems.

AUTO 100
AUTOMOTIVE MAINTENANCE AND OPERATION **4 UNITS**
Class hours: 3 lecture,3 lab
Prerequisite: None.
Basic class dealing with the selection and maintenance of the modern automobile. Emphasis is on the basic operating principles. (Formerly IA 15/AUTO 1)
Transfer Credit: CSU

AUTO 120
AUTOMOTIVE LUBRICATION, BRAKES AND WHEEL ALIGNMENT **5 UNITS**
Class hours: 4 lecture/4lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher or employed technician.
This is a theoretical and practical course in basic alignment, brakes, steering, and suspension. It includes operating principles, component description, diagnosis, repair, and adjustments. Alignment instruction includes electronic four wheel alignment. This course may be taken for a maximum of 10 units. (Formerly AUTO 12)
Transfer Credit: CSU

AUTO 121
AUTOMOTIVE ALIGNMENT BRAKE AND SUSPENSION **6 UNITS**
Class hours: 10 lecture/10 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in AUTO 73/74.
This is a theory/practical course in basic alignment, brakes, steering, and suspension on a single manufacturer's car line. Included

are operating principles, component description, diagnosis, repair, and service adjustments. This course is designed to accompany work experience in this trade. (Formerly AUTO 20.2/AUTO 12.1)
Transfer Credit: CSU

AUTO 130
AUTOMOTIVE ELECTRICITY 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C"or higher, or appropriate work experience.
This is a theoretical and practical course in basic electricity and automotive electrical systems such as battery, starting, charging, and electronic ignition. Test equipment and computer systems will also be covered. (Formerly AUTO 13)
Transfer Credit: CSU

AUTO 131
AUTOMOTIVE ELECTRICITY 7 UNITS
Class hours: 12 lecture/8 lab (9 weeks)
Prerequisite: AUTO 121 or equivalent with a grade of Credit or "C" or higher.
Corequisite: AUTO 73/74.
This is a theory/practical course in basic electricity and automotive electrical systems, such as battery, starting, charging, and electronic ignition systems. The content will be presented on a single manufacturer's product line. (Formerly AUTO 13.1)
Transfer Credit: CSU

AUTO 140
AUTOMOTIVE ENGINES 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
A theory/practical course in Automotive Engine repair to include operating principles and descriptions of all components. The major content will be on diagnosis and measurement. Complete disassembly and reassembly of engines will be accomplished. (Formerly AUTO 11/AUTO 14)
Transfer Credit: CSU

AUTO 141
AUTOMOTIVE ENGINES 4 UNITS
Class hours: 10 lecture/10 lab (6 weeks)
Prerequisite: AUTO 100 and AUTO 121 or equivalent with grades of Credit or "C" or higher.
Corequisite: AUTO 73/74.
Recommendation: None.
A theory/practical course in Automotive Engine repair to include operating principles and descriptions of all components. The major content will be on diagnosis and measurement. Complete disassembly and reassembly of engines will be accomplished. Course content will be presented on a single manufacturer's engine. (Formerly AUTO 14.1)
Transfer Credit: CSU

AUTO 150
AUTOMOTIVE MACHINE SHOP I 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO I00 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is designed to teach students the basic operations used in the automotive machine shop. It concentrates on cylinder head, cylinder block, and piston and connecting rod assemblies. An overview of other related operations will be included. This course may be taken for a maximum of 10 units. (Formerly AUTO 15)
Transfer Credit: CSU

AUTO 160
AUTOMOTIVE POWER TRAIN 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the principles of the automotive power systems--clutch, manual and automatic transmission, transaxles, transfer cases, drive line, drive-axle, differential, and all wheel drive systems and service, including diagnosis and service. This course may be taken for a maximum of 10 units. (Formerly AUTO 16)
Transfer Credit: CSU

AUTO 161
AUTOMOTIVE POWER TRAIN 6 UNITS
Class hours: 10 lecture/10 lab (9 weeks)
Prerequisite: AUTO 231 or equivalent with a grade of Credit or "C" or higher.
Corequisite: AUTO 73/74.
This course is a study of the principles of the automotive power systems--clutch, manual and automatic transmission, transaxles, transfer cases, driveline, drive-axle, and differential including diagnosis and service. This course is taught using a single manufacturer's components and materials. (Formerly AUTO 16.1)
Transfer Credit: CSU

AUTO 170
EMISSION CONTROL SYSTEMS - 1997 STANDARDS 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
One year automotive experience and /or automotive education credits equaling nine semester (14 quarter units) or 180 hours at a trade school. The course work must include, but is not limited to, the following automotive areas: basic electricity, fuel systems, and engine performance (tune-up).
This course gives the advanced automotive student exposure to the current methods, devices, and manufacturers of automotive emission control systems. It provides the student with an opportunity to obtain an advanced emission specialist technician license. This course may be taken for a maximum of 10 units. (Formerly AUTO 17)
Transfer Credit: CSU

AUTO 180
AUTOMOTIVE AIR CONDITIONING 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 130 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This theory and shop course is designed to teach basic automotive air conditioning; tools, skills and processes associated with the modern automobile; related information for developing knowledge and skills necessary to perform the most common and essential air conditioning service procedures. This course may be taken for a maximum of 8 units. (Formerly AUTO 18)
Transfer Credit: CSU

AUTO 190
AUTOMOTIVE MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
A course designed to furnish the student with knowledge, experience and practice in supervision and management of an automotive repair facility. Emphasis is placed on customer relations, scheduling, cost estimating, efficient and effective use of time and space. (Formerly AUTO 19)
Transfer Credit: CSU

AUTO 192
INTRODUCTION TO ALTERNATIVE FUELS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the role, function, and practical applications of Compressed Natural Gas (CNG) as an alternative fuel for the internal combustion engine. Propane, methanol, and hydrogen are also discussed. (Formerly AUTO 19.2)
Transfer Credit: CSU

AUTO 193
AUTOMOTIVE SERVICE
STAFF MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Automotive major or employment in an automotive repair facility.
This course will cover customer satisfaction, understanding new car warranties, service contracts and operating policies. A review of California common laws and BAR regulations will be included. Emphasis is based on computerized and electronic information systems including, All Data, Mitchell on Demand, ADP Automotive Management Systems.
Transfer Credit: CSU

AUTO 194
RETAILING
AUTOMOTIVE SERVICE **3 UNITS**
Class hours: 3 lecture
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Recommendation: Automotive major or employment in an automotive repair facility.
This course deals with issues related to the automotive repair facility's management, productivity, and operation of vehicle fleets. Taking into account the facility infrastructure, the focus will be on scheduling work to effectively utilize facilities and staff to improve production and profitability. Cost effective techniques for equipment procurement, management, and maintenance will also be covered. Shop organization and workflow will be discussed including safety and regulatory issues.
Transfer Credit: CSU

AUTO 195
AUTOMOTIVE CUSTOMER
SERVICE RELATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Employment in an automotive repair facility or full-time automotive student.
This course deals with the selling of automotive services to the general public and automotive fleet managers. All aspects of customer relations and developing skills necessary to properly communicate with customers are covered. Special emphasis will be given to interpersonal relationship development and customer confidence building. Cultural differences will be discussed as they affect sales techniques. This course provides participants with the necessary knowledge and skills to effectively handle situations that occur when dealing with unusual, complex or ethical problems.
Transfer Credit: CSU

AUTO 223
AUTOMOTIVE
BODY ELECTRICAL **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 130 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a theory/practical course in the automotive body electrical system, covering all classes of electrical components and power accessories in the area of diagnosing and component repairs. (Formerly AUTO 23)
Transfer Credit: CSU

AUTO 224
HIGH PERFORMANCE ENGINES **5 UNITS**
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 140 or AUTO 141 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in automotive engine design and high performance engine preparation. Complete disassembly and reassembly of engines will be accomplished. This course may be taken for a maximum of 10 units. (Formerly AUTO 24)
Transfer Credit: CSU

AUTO 225
ADVANCED AUTOMOTIVE
MACHINE SHOP II **5 UNITS**
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 150 or equivalent with a grade of Credit or "C" or higher.
This course is designed to familiarize the student with the more advanced machine operations used in automotive shop and mechanical repair industries. It will concentrate on advanced honing techniques, and welding and grinding crankshafts and camshafts. This course may be taken for a maximum of 10 units. (Formerly AUTO 25)
Transfer Credit: CSU

AUTO 226
AUTOMOTIVE AUTOMATIC
TRANSMISSIONS **5 UNITS**
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is focused on the principles of automatic transmissions and transaxles. Procedures for diagnosing troubles, adjusting, and overhauling the automatic transmission and transaxle are studied and applied in the shop. This course may be taken for a maximum of 10 units. (Formerly AUTO 26)
Transfer Credit: CSU

AUTO 231
AUTOMOTIVE DIAGNOSTIC
ENGINE PERFORMANCE **6 UNITS**
Class hours: 10 lecture/10 lab (9 weeks)
Prerequisite: AUTO 131 or equivalent with a grade of Credit or "C" or higher.
Corequisite: AUTO 73/74.
This is a theory/practical course in diagnosing automotive driveability problems. Areas such as ignition, carburetion, automotive computers, electronic engine controls and on-board diagnostic systems will be included. The course will be presented using a single manufacturer's product line. (Formerly AUTO 43.1)
Transfer Credit: CSU

AUTO 233
ELECTRONIC FUEL
MANAGEMENT SYSTEMS **5 UNITS**
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 130 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a theory/practical course pertaining to the operation, individual components, and the overall logic by which fuel systems components work together. Feedback carburetion, fuel injection and electronic controls will be included. This course may be taken for a maximum of 10 units. (Formerly AUTO 33)
Transfer Credit: CSU

AUTO 243
DIAGNOSTIC ENGINE
PERFORMANCE **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 233 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a theory/practical course in diagnosing automotive driveability problems. Areas such as ignition, carburetion, automotive computers, electronic engine controls and on-board diagnostic systems will be included. This course may be taken for a maximum of 8 units. (Formerly AUTO 43)
Transfer Credit: CSU

AUTO 245L
AUTOMOTIVE SPECIALTY **2 UNITS**
Class hours: 6 lab
Prerequisite: AUTO 225 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is designed to further increase the skill and knowledge of the student in areas of

his/her choice, working to trade standards. This course may be taken for a maximum of 6 units. (Formerly AUTO 45)
Transfer Credit: CSU

AUTO 280
AUTOMOTIVE GM / CORPORATE TRENDS AND CAREERS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is the introductory course in the General Motors Professional Automotive Sales and Service Certificate Program (GM PASS). It provides students interested in the GM PASS certificate program with a detailed overview of General Motors, the company history, each of its six divisions, and their respective products. General Motors market positioning, product philosophy, advertising themes, and other topics will be covered. (Formerly AUTO 69.13/AUTO 80)
Transfer Credit: CSU

BIOLOGY

(Science / Engineering / Math Division)

BIOL 100
NATURAL HISTORY OF SO. CALIFORNIA **1 UNIT**
(Also listed as GEOL 100)
Class hours: Total of 9 hours lecture with the minimum equivalent of 4 one-day field trips.
Prerequisite: None.
This is a field trip and seminar class in Biology and Geology of selected areas in So. California. Minerals, geology, landforms, plants, animals, ecology, human use, and recreation value will be studied. This course may be taken for a maximum of 2 units. (Formerly BIOL 16)
Transfer Credit: CSU

BIOL 105
MAN AND ENVIRONMENT **3 UNITS**
Class hours: 3 lecture
Recommendation: Satisfactory completion of the English Placement Process for ENGL 100 clearance or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is designed to help both science and nonscience majors to develop a better understanding of some of the important environmental problems facing mankind. The nature and implications of subjects such as loss of genetic variability, pollution problems, overpopulation, and the use and abuse of natural resources, will be studied. There will be an emphasis on the interrelatedness of these problems and how an understanding of environmental principles can help us to live on this planet more intelligently and more successfully. (Formerly BIOL 1)
Transfer Credit: CSU; UC

BIOL 110
CALIFORNIA ANIMALS AND PLANTS **3 UNITS**
Class hours: 2 lecture, 3 lab or field work.
Prerequisite: BIOL 120 or equivalent with a grade of Credit or "C" or higher.
Recommendation: None.
The common plants and animals of California are studied with emphasis upon those local forms which can be readily collected or observed. The lecture is designed to familiarize the student with the life history and identification of local species of plants and animals and to aid in the understanding of the relationship of these organisms to their environment. The laboratory and field work emphasize ecological principles and taxonomic identification. (Formerly BIOL 12)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. No credit for BIOL 110 if taken after BOT 120.*

BIOL 115
MARINE BIOLOGY **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This introductory course in marine biology is concerned with the adaptations, ecological relationships, economic importance, and identification of marine animals and plants. Emphasis is on the intertidal and offshore communities of California with frequent field trips to observe live specimens and study the marine environment. (Formerly BIOL 90)
Transfer Credit: CSU; UC

BIOL 120
INTRODUCTION TO BIOLOGICAL SCIENCE **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed for non-biological science majors. It covers basic principles of life science, including cellular biology, the plant and animal kingdoms, ecology, genetics, and evolution. Emphasis is also placed on human biology as it relates to everyday living. (Formerly BIOL 10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. No credit for BIOL 120 if taken after 200.*

BIOL 180L
LIFE SCIENCE PREPARATIONS **1 UNIT**
Class hours: 3 lab
Prerequisite: BIOL 120 or equivalent with a grade of Credit or "C" or higher.
This course is designed for pre-teaching, life science majors. The student will learn the use and care of laboratory apparatus through actual experience in the classroom. The student will assist the instructor in the laboratory by performing such jobs as helping to prepare demonstrations, designing displays, and aiding individuals in the class. This course may be taken for a maximum of 2 units. (Formerly BIOL 20.16)
Transfer Credit: CSU

BIOL 200 (CAN BIOL SEQ A)
PRINCIPLES OF BIOLOGY **5 UNITS**
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment. BIOL 120 or ZOOL 120 or BOT 120 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The course provides a basic survey of major groups of organisms (Kingdoms Monera, Protista, Plants, and Animals) within a context of unifying themes of evolution and ecology. Emphasis will be on structure and function or organisms with consideration given to phylogeny, taxonomy, adaptations, and interactions among organisms and their environment. Animal behavior and select vertebrate organ systems will be included. This course is designed as one semester of a two part series (coordinating with BIOL 201) for biology/medical majors. (Formerly BIOL 5.1)
Transfer Credit: CSU; UC

BIOL 201 (CAN BIOL SEQ A)
PRINCIPLES OF BIOLOGY **5 UNITS**
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or "C" or higher.
BIOL 120 or ZOOL 120 or BOT 120 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None. Recommendation: None.
The principles of modern biology are discussed at the molecular, cellular, and organismic levels. Integrated within the course will be units on biochemistry, cell biology, origin of life, physiology of excitable tissues, genetics, molecular biology, biotechnology, immunology and developmental biology. (Formerly BIOL 5.2)
Transfer Credit: CSU; UC

BIOL 202
MOLECULAR BIOLOGY / GENETICS **4 UNITS**
Class hours: 4 lecture
Prerequisite: BIOL 201 and CHEM 211 or equivalent with grades of Credit or "C" or higher. CHEM 211 may be taken concurrently.
Corequisite: None.
Recommendation: None.
Biology 202 is an extension of the study of molecular biology, cell biology and genetics introduced in BIOL 201. This course examines the structure and function of nucleic acids and proteins in the living cell, as well as how these molecules are studied and manipulated in the laboratory. Topics include regulation of gene expression, recombinant DNA technology, chromosome mapping and viral and prokaryotic genetics.
Transfer Credit: CSU; UC

BIOL 250L
SPECIAL TOPICS IN BIOLOGY **1 UNIT**
Class hours: 3 lab
Prerequisite: BIOL 120 or equivalent with a grade of Credit or "C" or higher.
This course is designed primarily for biological science majors. Individual research problems are explored using materials, equipment, and techniques not available to larger classes. This course may be taken for a maximum of 4 units. (Formerly BIOL 30.16)
Transfer Credit: CSU; UC

BOTANY

(Science / Engineering / Math Division)

BOT 120
INTRODUCTION TO PLANT SCIENCE **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a basic course in plant biology designed not only to introduce the student to plants, but also to cover in some depth many of the facets of botany. Included will be plant cell biology and chemistry, a survey of major plant groups and their life cycles and characteristics, plant ecology and evolution. The course will help prepare students for a life science major, but it can also be taken to fulfill a lab science requirement in general education. Four field trips to examine local plant communities are part of the class. Students will also conduct a research project, prepare a scientific paper, and make a poster presentation based on their project. (Formerly BOT 10)
Transfer Credit: CSU; UC

BUSINESS ACCOUNTING

(Business Division)

BUSA 1T (Not degree applicable)
ACCOUNTING MICROCOMPUTER TUTORIAL **0 UNIT**
Class hours: 2 lab
Prerequisite: None.
Corequisite: Enrollment in one or more Business Accounting (BUSA) or Business Finance (BUSF) course(s).
Recommendation: None.
This course is designed to provide individual tutorial instruction for students studying computerized accounting to facilitate and reinforce their ability to complete assigned computerized projects. (Formerly BUSA 98)

BUSA 2T (Not degree applicable)
ACCOUNTING TUTORIAL **0 UNIT**
Class hours: 2 lab
Prerequisite: None.
Corequisite: BUSA 100, BUSA 101, or BUSA 102.
Recommendation: None.
This course is designed to provide individualized tutorial instruction with assigned problems and practice sets for introductory accounting students. (Formerly BUSA 99)

BUSA 51
VOLUNTEER INCOME TAX ASSISTANCE **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: BUSA 61 or BUSA 250 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed to give students the knowledge and skills necessary to prepare simple federal income tax returns, on a volunteer basis, to low-income and disadvantaged members of the community. With the guidance of the instructor and Internal Revenue Service agents, students will gain experience in interviewing techniques and will apply skills learned in tax preparation while providing a much-needed service to their community.

BUSA 60
QUICKBOOKS ACCOUNTING **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: BUSA 1T.
Recommendation: None.
This course introduces QuickBooks 6.0, a complete accounting software system for small businesses. (Formerly BUSA 35)

BUSA 61
TURBO TAX ACCOUNTING **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: BUSA 1T.
Recommendation: None.
This course introduces personal income tax preparation using Tax Return Preparation with Turbo Tax for Windows, a software package for preparing individual income tax returns. (Formerly BUSA 36)

BUSA 100
INTRODUCTION TO ACCOUNTING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This accounting course introduces the theory and practice of double entry accounting. Emphasis will be placed upon understanding the basic financial records and forms and applying elementary accounting procedures. (Formerly BUSA 10)
Transfer Credit: CSU

BUSA 101 (CAN BUS SEQ A)
FUNDAMENTALS OF ACCOUNTING I **4 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 100 or equivalent with a grade of Credit or "C" or higher.
This course covers the basic concepts used by businesses for financial accounting. The course includes a study of: the accounting concepts and techniques essential to the administration of a business enterprise; measuring and communicating economic information; analyzing and recording financial transactions; and the preparation of financial statements for sole proprietorships, partnerships, and corporations. (Formerly BUSA 11)
Transfer Credit: CSU; UC

BUSA 102 (CAN BUS SEQ A)(CAN BUS 4)
FUNDAMENTALS OF ACCOUNTING II **4 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 101 or equivalent with a grade of Credit or "C" or higher.
This course covers the basic concepts used by businesses for managerial accounting. The

course includes a study of: managerial accounting concepts and systems; job order cost systems; analyses for managerial decision making; planning, and control techniques and principles. (Formerly BUSA 12)
Transfer Credit: CSU; UC

BUSA 130
PAYROLL TAX ACCOUNTING 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 100 or BUSA 101 or equivalent with a grade of Credit or "C" or higher.
This course will cover fundamental principles of payroll tax laws as defined by Federal, State, and local government. It will also include discussion of Social Security, Federal and State income taxes, Federal and State Unemployment Insurance, Workmen's Compensation Insurance, and journal entries to record payroll information. It will include sales tax requirements in record keeping and computation of sales tax returns. Insurance and union reporting are discussed. It also includes personnel records requirements, data processing, and payroll systems. It is intended to provide the business students with a working knowledge of current tax laws and practical application of the same. (Formerly BUSA 30)
Transfer Credit: CSU

BUSA 131
COMPUTERIZED ACCOUNTING-IBM 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 100 or BUSA 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSA 1T.
This course is designed to develop a working knowledge of basic accounting systems using an IBM compatible microcomputer and IBM compatible software. The accounting functions covered will include structuring the chart of accounts; journalizing; posting to the general ledger, accounts receivable, and accounts payable subsidiary ledgers; the structure and preparation of financial statements. In addition, forecasting, budgeting, billing, cash, inventory and payroll modules will be utilized. This course will give students practical experience on the IBM compatible microcomputer. (Formerly BUSA 31)
Transfer Credit: CSU

BUSA 133
SPREADSHEET ACCOUNTING I 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSA 1T.
This course is designed to teach students the application of accounting functions using the IBM compatible microcomputer and standard spreadsheet software. The accounting functions will include the development of financial statements, worksheets, special journals, payroll, bank reconciliations, and personal budgeting. (Formerly BUSA 33)
Transfer Credit: CSU

BUSA 134
SPREADSHEET ACCOUNTING II 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 101 and BUSA 133 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSA 1T.
This course is designed to teach students the application of accounting functions using the IBM compatible microcomputer and spreadsheet accounting software. The accounting concepts will include corporation financial statements, financial ratios, manufacturing accounting, plant assets, accounts and notes receivable, inventory valuation, notes payable, budgeting, and forecasting utilizing generally accepted accounting principles. (Formerly BUSA 34)
Transfer Credit: CSU

BUSA 171
BUSINESS ACCOUNTING OCCUPATIONAL WORK EXPERIENCE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Accounting Occupational Work Experience, in a declared business major. One unit of Business Accounting Occupational Work Experience requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 3 units. (Formerly BUSA 71)
Transfer Credit: CSU

BUSA 172
BUSINESS ACCOUNTING OCCUPATIONAL WORK EXPERIENCE 2 UNITS
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Accounting Occupational Work Experience, in a declared business major. Two units of Business Accounting Occupational Work Experience require 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 6 units. (Formerly BUSA 72)
Transfer Credit: CSU

BUSA 173/174
BUSINESS ACCOUNTING OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: 1 hour/week coordination class.
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience, in a declared business major. Each 75 hours of paid work equals one semester of credit or 60 hours of non-paid work equals one semester of credit at the training site.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.
First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects

that relate to their major and job skills must be completed on the job/training site.
Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BUSA 73/74)
Transfer Credit: CSU

BUSA 201
INTERMEDIATE ACCOUNTING I 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 102 or equivalent with a grade of Credit or "C" or higher.
This course covers the preparation of accounting statements and the study of accounting theory, utilizing the corporation form of business organizations. The emphasis of the course is on the sequential study of the various classifications and items of the balance sheet, including current and non-current assets. (Formerly BUSA 21)
Transfer Credit: CSU

BUSA 202
INTERMEDIATE ACCOUNTING II 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 201 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of BUSA 201. It is an in-depth study of the balance sheet items relating to non-current assets, current liabilities, long-term liabilities, paid-in capital and retained earnings. The course includes techniques of comparative analysis; interpretation and projection of financial statements, funds-flow and cash-flow reporting; and the study of A.P.B.'s (Accounting Principles Board Bulletins) and F.A.S.B.'s (Financial Accounting Standard Board pronouncements). (Formerly BUSA 22)
Transfer Credit: CSU

BUSA 230
ADVANCED
PAYROLL ACCOUNTING 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 130 or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSA 1T.
Recommendation: None.
This course is designed to build on the basic payroll knowledge and skills gained in the Payroll Tax Accounting course. It covers advanced topics in payroll systems analysis, payroll administration, accounting for cafeteria plans, flexible spending accounts, tax deferred savings accounts and retirement plans. Taxation of fringe benefits, health, accident and disability benefits, and expatriot payments are explored. Methods of developing compensation plans are also discussed. This course is applicable to those students who plan to take the Certified Payroll Professional examination sponsored by the American Payroll Association.
Transfer Credit: CSU

BUSA 231
CURRENT TOPICS IN PAYROLL
ACCOUNTING 1.5 UNITS
Class hours: 3 lecture (9 Weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to give payroll accounting students exposure to experts in federal and state payroll tax law, Workers' Compensation Insurance, union payroll, labor and fair employment law, sales taxes and payroll administration. The course is structured as a current topics seminar with guest speakers from the legal field, the Internal Revenue Service, the Franchise Tax Board, the State Board of Equalization, the Employment Development Department, The California Society of Certified Public Accountants, and Certified Payroll Professionals. This course may be taken for a maximum of 3 units.
Transfer Credit: CSU

BUSA 240
COST ACCOUNTING 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 100 or BUSA 101 or equivalent with a grade of Credit or "C" or higher.
This course covers the various methods of cost accounting in use by manufacturing concerns. The details of accounting for materials, labor, and manufacturing overhead costs and expenses are presented. A study is made of the use of job order cost systems, process cost systems, and standard cost systems. The related areas of budgeting, break-even, and profit-volume analysis by management are included. A practice set is used. (Formerly BUSA 40)
Transfer Credit: CSU

BUSA 241
MANAGERIAL ACCOUNTING 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 101 and BUSA 102 or equivalent with grades of Credit or "C" or higher.
This course introduces the managerial accounting concepts and principles that will enable the student to understand managerial accounting as it is applied in serving management needs. Topics include: fundamentals of managerial accounting; managerial accounting concepts and systems; managerial accounting planning and control; accounting for decentralized operations; analyses for decision making; modern uses of managerial accounting. (Formerly BUSA 60)
Transfer Credit: CSU

BUSA 250
INCOME TAX ACCOUNTING 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 100 or BUSA 101 or equivalent with a grade of Credit or "C" or higher.
This course is a practical study of the current Federal revenue acts as they relate to business and individual income tax procedures. It includes income inclusions and exclusions, exemptions, capital gains and losses, and business and individual deductions. This course reflects the tax laws of the Tax Reform Act of 1986, Public Law 99-514 of October 22, 1986. (Formerly BUSA 50.1)
Transfer Credit: CSU

BUSA 251
ADVANCED
INCOME TAX ACCOUNTING 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 250 or equivalent with a grade of Credit or "C" or higher.
This will be a continuation of BUSA 250 and will cover taxpayers other than individuals. It is designed to fill the needs of the student who desires knowledge of the Federal Income Tax implications of partnerships, corporations, tax option corporations and a general overview of estates, trusts, and gift taxation. This course reflects the tax laws of the Tax Reform Act of 1986: Public Law 99-514. (Formerly BUSA 51.1).
Transfer Credit: CSU

BUSA 270
FUNDAMENTALS OF AUDITING 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 202 or equivalent with a grade of Credit or "C" or higher.
This course covers the process of examining and evaluating financial conditions and records. It is designed to provide a basis for an opinion concerning the reliability of the records, as evidenced by a written audit report. (Formerly BUSA 70)
Transfer Credit: CSU

BUSA 280
ADVANCED ACCOUNTING 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 202 or equivalent with a grade of Credit or "C" or higher.
This class covers partnership and joint venture accounting, installment sales, consolidated financial statements, bankruptcy, accounting for trusts and estates, and government and non-profit accounting. (Formerly BUSA 80)
Transfer Credit: CSU

BUSINESS ADMINISTRATION

(Business Division)

BA 50
BUSINESS MATH **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a study of basic math as it relates to specific areas of business. Topics covered include percent, interest markup, discounting, stocks, annuities, consumer credit, loans, and bank reconciliations. (Formerly BA 15)

BA 51
LEGAL ASPECTS OF MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course covers statutes, ordinances, rules, regulations, and orders that influence the operation of the industry being studied. The student will become familiar with various agencies operating in the areas which regulate labeling, environment, sanitation, advertising, weights and measures, pricing, and labor laws. It is designed for management majors. (Formerly BA 14)

BA 52
FUNDAMENTALS OF IMPORTING AND EXPORTING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a course in the basics of importing and exporting, including U.S. Customs service, customs brokers, duty rates, laws and regulations, currency exchange and letters of credit, storage, transportation, financing, terms of access, documentation, trade patterns by countries and commodities. (Formerly BA 6)
Transfer Credit: CSU

BA 54
RETAIL DISPLAY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course covers principles and methods of arranging windows, wall cases, floor cases, and open displays in a pleasing merchandising manner. It also covers the principles of design, the use of color, fashion coordination, and seasonal promotion as they relate to objectives of a retail establishment. (Formerly BA 61)

BA 55
INTRODUCTION TO LOGISTICS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the principles and concepts of Logistic functions. Class lectures will cover the total product flow from the inbound raw materials to the outbound finished goods. Logistics activities to be discussed will be warehousing, transportation, inventory management and materials handling. (Formerly BA 63)

BA 57
INVENTORY MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the principles and concepts of Inventory Management. Control of inventory stresses the importance of inventory as well as Inventory Management's relationship with other business functions. This course is designed to assist the student to pass the APICS (American Production and Inventory Control Society) certification examination. (Formerly BA 90)

BA 58
JUST-IN-TIME INVENTORY MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course trains the student in the competitive process of Just-In-Time Inventory Management. New design criteria and facility layout are necessitated by Just-In-Time managed companies. This course prepares the student for the national certification examination conducted by APICS (American Production and Inventory Control Society) (Formerly BA 93)

BA 59
MATERIAL REQUIREMENTS PLANNING (MRP) **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed for comprehensive treatment of time-phased material requirements planning (MRP) in conjunction with computerized system techniques. Fundamental concepts and principles will be discussed as system elements and implementation alternatives. System inputs as well as outputs will be analyzed in light of inventory practices and control procedures. This course prepares the student for the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 94)

BA 60
MASTER SCHEDULING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course trains the student in the various techniques used by marketing and manufacturing to anticipate and control customers' demand against the company's build plan. This course prepares the student for the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 95)

BA 62
BUSINESS ON THE INTERNET **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course explores the current status of business and marketing practices on the Internet. Through the use of computers in the classroom, the students will explore business resources on the Internet. Opportunities on the Internet are in the areas of entrepreneurial management, business applications, marketing, and sales. Resources that are utilized are Internet service providers as well as electronic mailing lists and chat groups.

BA 63
HOW TO START A HOME-BASED BUSINESS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course explores the factors that determine the possibility of starting a home-based business. The process of starting and operating a home-based business is included in this course.

BA 100
FUNDAMENTALS OF BUSINESS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course, designed for the beginning business student, will survey business principles, problems, practices, and procedures as they pertain to the societal challenges facing business and the economic challenges facing America. Business topics will be discussed, such as: the nature of business, ownership, recruitment and training of personnel, labor-management relations, production and distribution of goods, competition, profits, transportation, finance, managerial controls, government, and business relations. (Formerly BA 1)
Transfer Credit: CSU; UC

BA 101
INTERNATIONAL BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of the factors, problems, and techniques involved in conducting business in the market places of the world and includes an overview of economic, political, geographic, and social factors that affect business transactions abroad. (Formerly BA 2)
Transfer Credit: CSU

BA 102
INTERNATIONAL BUSINESS LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a survey course designed to acquaint the student with the legal aspects of international business law. It includes discussions regarding the responsibilities of states for the treatment of aliens and foreign businesses, multinational enterprises, foreign investments, importing and exporting, and money and banking. (Formerly BA 3)
Transfer Credit: CSU

BA 104
CULTURAL BRIDGES FOR BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the students to various human characteristics and differences which exist in world-wide business environments. Communication styles, business ethics, mannerisms, numbers, space, and political and religious beliefs will be highlighted as to their importance in establishing viable and profitable contacts between individuals, cultures, and nations. (Formerly BA 4)
Transfer Credit: CSU

BA 105
PERSONNEL-POLICY AND PROCEDURES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to provide the student with an in-depth probe of personnel from an administrative role. It includes the implementation of compliance with governmental regulations and laws. (Formerly BA 5)
Transfer Credit: CSU

BA 106
HUMAN RESOURCE MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to acquaint the student with the principles and methods related to the effective utilization of personnel in the business organization. It will develop relations involved in recruitment, selection, placement, training, and supervision of employees. It will also include an introduction to the organized labor movement and current labor relations conditions. (Formerly BA 42)
Transfer Credit: CSU

BA 107
HUMAN RELATIONS IN BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to aid future employees and employers to understand and utilize human relations concepts as they apply to the business environment. It will cover such areas as morale, personal efficiency, leadership, personality, motivation, and communication. (Formerly BA 31)
Transfer Credit: CSU

BA 108
LABOR MANAGEMENT RELATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is an introductory course in labor-management relations for supervisors and union shop stewards. It focuses on collective bargaining and the functions of management, unions and labor agreements. An indepth study will be made of the Labor Management Relations Act as amended, the National Labor Relations Board, and the Landrum-Griffin Act. Special attention is given to grievance procedures and arbitration cases. Negotiations of a collective bargaining agreement will be simulated. (Formerly BA 32)
Transfer Credit: CSU

BA 110
ADVERTISING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers the study of magazine, newspaper, radio, billboard, direct mail, and other special forms of publicity. Problems of space, type, copy, and the preparation of the complete layout are discussed. The principles of effective techniques with ample practice in the preparation of different types of advertisements will be covered. (Formerly BA 62)
Transfer Credit: CSU

BA 111 (CAN BUS 8)
BUSINESS LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a course designed to introduce the student to the legal concepts of everyday business transactions. It will include discussions of legal rights, contracts, Universal Commercial Code (UCC) sales, negotiable instruments, and the structure of our judicial system. This course meets 54 hours of the legal requirement for Court Reporting Certification. (Formerly BA 11)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. BA 111, BA 112 and BA 113 combined: maximum credit, one course.*

BA 112
BUSINESS LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a survey course designed to acquaint the student with the legal aspects of the business world. It will cover bailments, personal property, real property, agency, partnerships, corporations, wills, trusts, secured interests, and international law. (Formerly BA 12)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. BA 111, BA 112 and BA 113 combined: maximum credit, one course.*

BA 113
LEGAL ENVIRONMENT OF BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a course that provides a meaningful portrayal of the operation and interaction of public and private law in the political and socio-economic environment. This is achieved by the study of the state and federal legal system and the laws that regulate the business organizations. (Formerly BA 13)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. BA 111, BA 112 and BA 113 combined: maximum credit, one course.*

BA 114
MARKETING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers problems and organizations of systems of distributing goods and services in our business world. It will include promotion through retail and wholesale parallels, consumer buyer habits, pricing, budgeting, transportation, ware-

housing, sources and uses of marketing information, and marketing of agricultural products. (Formerly BA 55)
Transfer Credit: CSU

BA 115
MANAGEMENT—BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will cover the principles and techniques in the management of business. It includes organizing, planning, controlling, directing, and the application of management principles to business organizations. (Formerly BA 40)
Transfer Credit: CSU

BA 117
INTRODUCTION TO SUPERVISION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
An introductory course focusing on the leadership skills and responsibilities required of supervisors in industry, business, and government agencies. Topics to be explored will include effective communication practices, training and evaluation of employees, management systems organization, and delegation of responsibilities. Class demonstration of leadership skills. Designed for in-service supervisors and pre-supervisor education. (Formerly BA 30)
Transfer Credit: CSU

BA 118
MANAGEMENT—RETAILING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to meet the needs of retail store managers and help prepare students for positions in retail store management. Topics covered: organizational structure, merchandise planning and control, sales promotion, pricing, and expense management. (Formerly BA 43)
Transfer Credit: CSU

BA 119
MANAGEMENT—SUPERMARKET 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to meet the needs of students in supermarket management by acquainting the student with the management functions of planning, organizing, staffing, directing, controlling, innovating, and representing as they apply to the supermarket. (Formerly BA 82)
Transfer Credit: CSU

BA 120
MANAGEMENT–ACCOUNTING AND INTERNAL CONTROL 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
The accounting cycle will be introduced with emphasis on understanding financial records. Instruction will be given on the internal control of the industry being studied as well as an introduction to the analysis of the financial statements. (Formerly BA 81)
Transfer Credit: CSU

BA 121
SALES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers opportunities in selling, development of desirable personality traits, methods of approach to prospective customers, the art of demonstrating goods, how to meet objections, and how to close the sale. (Formerly BA 50)
Transfer Credit: CSU

BA 123
FUNDAMENTALS OF RETAILING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to help the student develop an understanding of the problems, policies, and methods of merchandising as carried on in retail stores. Topics covered: careers in retailing, store layout, pricing goods, buying and receiving of merchandise and customer services. (Formerly BA 66)
Transfer Credit: CSU

BA 132
COMPUTER APPLICATIONS FOR MANAGERS 3 UNITS
Class hours: 3 lecture/1 hr. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course focuses on the business management processes and the software products that are available to assist managers, entrepreneurs, and other business professionals in the successful accomplishment of their demanding jobs in a dynamic, global, and technology-driven business environment. The course is designed to review the latest software available to assist mangers in accomplishing the full spectrum of management functions to help them shift from old methods of managing to new methods using tools provided by computer technology.
Transfer Credit: CSU

BA 149
CURRENT MANAGEMENT THEORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to TQM (Total Quality Management) and other current management theories. The ideas of prominent management consultants will be reviewed, discussed, and analyzed. These theories will be compared as to how they can be applied. (Formerly BA 49)
Transfer Credit: CSU

BA 153
SMALL BUSINESS MANAGEMENT 3 UNITS
Class hours: 3 lecture +1 hr. lab arr.
Prerequisite: None.
This course is designed to acquaint the student with the knowledge of principles, procedures, and opportunities in small business management. It covers such topics as entrepreneurial opportunities, developing a business plan, marketing, operations, and financial management. It briefly covers the practical aspects of record keeping, planning, and control. (Formerly BA 41, BA 53)
Transfer Credit: CSU

BA 155
INTRODUCTION TO GLOBAL LOGISTICS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: BA 101 or equivalent with a grade of Credit or "C" or higher.
In this course students analyze the international environment, learn about logistics systems, and learn the correct control procedures to monitor its success. Students learn the factors involved in bringing new products to market across numerous regions, using customized design, packaging, and service offerings, while providing for quick-response delivery, linking innovation, and value-added services to product offerings.
Transfer Credit: CSU

BA 156
MOTIVATIONAL PRESENTATION SKILLS FOR MANAGERS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to teach managers how to communicate the values, mission, and goals of the organization to create an environment that encourages motivation on the part of employees. Students learn motivational

techniques and presentation skills required to be an effective business leader. Topics also include handling conflict, managing changes, and dealing effectively with stress. Emphasis is on the process of developing presentation materials, planning presentations, and using the latest communication technology with which to deliver professional, compelling presentations. (Formerly BA 84/BA 56)
Transfer Credit: CSU

BA 161
CONSUMER LAW **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to the workings of the law to help the consumer better understand legal fundamentals and procedures. This course covers the legal profession and careers; the court system in the United States, contracts, property rights, negligence, wills, business organizations, marriage and divorce, real estate, bankruptcy, and consumer protection. (Formerly BA 16, BA 61)
Transfer Credit: CSU

BA 171
BUSINESS ADMINISTRATION
WORK EXPERIENCE **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Administration Occupational Work Experience, in a declared business major. One unit of Business Administration Occupational Work Experience requires 60 non-paid hours of work or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 3 units. (Formerly BA 71)
Transfer Credit: CSU

BA 172
BUSINESS ADMINISTRATION
OCCUPATIONAL WORK
EXPERIENCE **2 UNITS**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Administration Occupational Work Experience, in a declared business major. Two units of Business Administration Occupational Work Experience require 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 6 units. (Formerly BA 72)
Transfer Credit: CSU

BA 173/174
BUSINESS ADMINISTRATION
OCCUPATIONAL WORK
EXPERIENCE **3-4 UNITS**
Class hours: 1 hour/week coordination class.
Corequisite: Enrollment in 7 or more units, including Business Administration Occupational Work Experience, in a declared business major. Three units of Business Administration Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Administration Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.
First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site.
Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BA 73/74)
Transfer Credit: CSU

BA 174A
BUSINESS ADMINISTRATION
OCCUPATIONAL WORK
EXPERIENCE ALTERNATE PLAN **4 UNITS**
Class hours: 1 hour/week coordination class
Prerequisite: Completion of 12 units in Business Administration, Business Real Estate or Paralegal or equivalent.
Corequisite: None.
Recommendation: None.
The Business Administration Occupational Work Experience Alternate Plan is supervised employment of students designed to offer students opportunities to attend college full-time one semester and work full-time the following semester. Job experience must relate directly to the student's educational goals. Up to eight (8) units may be earned in one semester. Occupational work internship is supervised employment of students designed to extend their classroom-based occupational learning at an on-the-job learning station in fields directly related to their educational or occupational goals. This course may be taken for a maximum of 16 units.
Transfer Credit: CSU

BA 200
PRINCIPLES OF BANKING **3 UNITS**
Class hours: 3 lecture.
Prerequisite: None.
This is an introductory course in commercial banking. It will deal with issues, subjects, and situations bankers encounter today. The topics covered will include: negotiable instruments, deposits, payments, personnel, data handling, loan functions, bank services, and management of assets. (Formerly BA 20)
Transfer Credit: CSU

BA 201
MONEY AND BANKING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This is an introductory course whose principal objective is to explain how our modern monetary institutions can best meet the needs

of society. Topics covered are monetary theory, money creation, flow, controls, national policy, and international factors. The questions of how fiscal and monetary policies may help us solve our problems will be thoroughly examined. (Formerly BA 21)
Transfer Credit: CSU

BA 203
MANAGEMENT–
DEPARTMENT OPERATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed to provide the student with an awareness and appreciation of staff-supported activities in an organization. The inter-reaction of the various departments and the work flow are analyzed for the purpose of developing a cooperative attitude among personnel of the various departments. (Formerly BA 83)
Transfer Credit: CSU

BA 206
PRODUCTION ACTIVITY
CONTROL **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course trains the student in the commonly known and accepted manufacturing principles and practices of production controls. Production control objectives are developed for controlling input, output, measurement, and corrective actions. Scheduling techniques, records, routings capacity, and load criteria as well as production releases and shortages are taught. This class prepares the student to pass the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 91)
Transfer Credit: CSU

BA 207
CAPACITY MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course prepares the student to establish the interrelationship of capacity management to the total production and inventory management systems of a company. Capacity management also addresses the problem of planning and controlling various capacities of the industrial firm. Capacity management is the process of determining the necessary resources (land, facilities, money, equipment, work force) to meet the production objectives of the firm. This class prepares the student to pass the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 92)
Transfer Credit: CSU

BUSINESS COMMUNICATION

(Business Division)

BCOM 1T (Not degree applicable)
INDIVIDUALIZED BUSINESS
COMMUNICATIONS SKILLS **0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to improve the written and/or verbal communication skills of students independent of a lecture class. Work may be assigned in any or all of the following areas: communication skills, listening skills, problem-solving skills, employment techniques, proofreading techniques, grammar, vocabulary, punctuation, and techniques and procedures for reading and writing business correspondence. (Formerly BCOM 40)

BCOM 45 (Not degree applicable)
EFFECTIVE COMMUNICATION
FOR MANAGERS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course will help students develop written reports and other types of communication such as letters and surveys unique in the management field. They will learn the mechanics such as word usage and spelling related to a particular industry. Students will develop telephone and dictation techniques. (Formerly BCOM 49)

BCOM 46 (Not degree applicable)
BUSINESS COMMUNICATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course reviews the fundamentals of grammar, sentence structure, punctuation, capitalization, spelling, and business vocabulary building. Completion of the course fulfills 54 hours of the English requirement for the Court Reporting Certification.

BCOM 51
BUSINESS ORAL
COMMUNICATION **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the importance of good oral communication skills for success in business. It provides practice for developing speaking and listening skills within the business environment for careers in selling, marketing, and management.

BCOM 147
BUSINESS COMMUNICATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: BCOM 46 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: BCOM 151 and ENGL 100 or equivalent with grades of Credit or "C" or higher.
This course integrates instruction and practice in business writing. The emphasis is on modern structure, style, vocabulary, grammar, and logical organizational patterns. The course content emphasizes memos and letters, reports, career communications, oral communication, global and multicultural issues, legal and ethical situations, and communication technology. This course can be taken in a traditional classroom setting or in an online learning environment. (Formerly BCOM 47)
Transfer Credit: CSU

BCOM 148
EFFECTIVE BUSINESS
PRESENTATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: BCOM 46 or ENGL 52 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the English Placement Process.
This course is designed to develop those communication skills necessary to present effective written and oral business briefings and reports. It stresses the need to write and speak clearly, cohesively, concisely, and convincingly. Students will structure reports, both orally and written, on topics about which they are knowledgeable. (Formerly BCOM 48)
Transfer Credit: CSU

BCOM 150
INTERNATIONAL
BUSINESS COMMUNICATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: BCOM 147 or ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course covers issues and skills that are crucial to effective intercultural communication in business. The most significant issues pertaining to cross-cultural interaction are examined. Practical guidelines and information on how to conduct negotiations across countries, as well as general do's and don'ts in international business are covered. International business writing styles, formats, and content for letters, reports, resumes, presentations, and other miscellaneous business documents are emphasized. (Formerly BCOM 50)
Transfer Credit: CSU

BCOM 151
COMPUTER APPLICATIONS / BUSINESS DOCUMENTS **1 UNIT**
Class hours: 2 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in one of the following courses: BCOM 45, 147, 148, 150, or 152.
This course reinforces the critical writing skills involved in preparing effective business messages through hands-on experience in using the microcomputer. Students will use primary-computer-applications skills in word processing, spreadsheet, data management, graphics, and desktop publishing to solve communication problems in the production of typical business documents, including letters, memoranda, reports, resumes, and proposals. The applications in this course are carefully designed to correlate with the content coverage of primary business communication texts. (Formerly BCOM 51)
Transfer Credit: CSU

BCOM 152
JOB SEARCH IN THE BUSINESS FIELD **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Completion of or near completion of any certificate or AA degree in the Business Division.
This course prepares business students for the job search process. It emphasizes job search tools, techniques, and procedures for researching the labor market; health and image professional development; writing strategies for resumes, cover letters, and thank-you letters; and understanding human relations in job adjustment. This course may be taken for a maximum of 3 units. (Formerly BCOM 52)
Transfer Credit: CSU

BUSINESS COMPUTERIZED OFFICE TECHNOLOGIES

(Business Division)

BCOT 1T (Not degree applicable)
INDIVIDUALIZED OFFICE SKILLS **0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation; None.
This course is designed to improve the office skills of students independent of a lecture class. Work may be assigned in any or all of the following areas: word processing software, spreadsheet software, database software, graphics software, filing procedures, telephone communications, mail procedures, communication skills, listening skills, problem-solving skills, and customer service. (Formerly BASS 30/BASS 1T)

BCOT 3T (Not degree applicable)
BUSINESS COMMUNICATIONS, WORD PROCESSING, OR KEYBOARDING TUTORIAL **0 UNIT**
Class hours: 1 lab
Open entry/open exit
Prerequisite: None.
Corequisite: Enrollment in any BCOM 147, any BCOT word processing or keyboarding course.
This course is designed to facilitate and reinforce the learning of word processing functions, skills, and concepts through individualized and mediated instruction. It will also facilitate and reinforce the learning of typing skills and formatting theory through individualized instruction. This course is open to any student enrolled in BCOM business communications, any BCOT word processing or keyboarding course. (Formerly BASS 3/BASS 3T)

BCOT 5A (Not degree applicable)
WORD MODULE **0.5 UNITS**
Class hours: 1.5 lecture/2.5 lab (4 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Fluency in Spanish is strongly recommended.
This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and PowerPoint). Students learn basic aspects of microcomputer software applications using a modular approach. This module will include topics in file management, creation/maintenance of backups, formatting disks, and the basic concepts and use of a word processing application. This course may be taken for a maximum of 1.0 unit.
(Formerly CIS 5A)

BCOT 5B (Not degree applicable)
EXCEL MODULE **0.5 UNITS**
Class hours: 1.5 lecture/2.5 lab (4 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Fluency in Spanish is strongly recommended.
This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and PowerPoint). Students learn basic aspects of microcomputer software applications using a modular approach. The module will include topics in file management, creation/maintenance of backups, formatting disks, and the basic concepts and use of a spreadsheet application. This course may be taken for a maximum of 1.0 unit. (Formerly CIS 5B)

BCOT 5D (Not degree applicable)
POWERPOINT / INTERNET MODULE **0.5 UNITS**
Class hours: 1.5 lecture/2.5 lab (4 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Fluency in Spanish is strongly recommended.
This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and PowerPoint). Students learn basic aspects of microcomputer software applications using a modular approach. The module will include topics in file management, creation/maintenance of backups, and formatting disks. The modules will also include the basic concepts and use of PowerPoint, a presentation application, and a basic introduction to the Internet and creating Web Pages. This course may be taken for a maximum of 1.0 unit. (Formerly CIS 5D)

BCOT 50
ADVANCED WORDPERFECT FOR WINDOWS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BCOT 108 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course offers students opportunities to build advanced skills, speed, and problem-solving abilities using WordPerfect for Windows software. (Formerly BASS 9/ BASS 50)

BCOT 51
ADVANCED MICROSOFT WORD FOR WINDOWS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BCOT 112 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment in BCOT 3T.
This course offers students opportunities to

build advanced skills, speed, and problem-solving abilities using Microsoft Word for Windows software. (Formerly BASS 13/ BASS 51)

BCOT 52
DATA ENTRY **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None
This course is designed to enable students to develop skill as data entry operators. Students will utilize a full screen data entry terminal. Data will be recorded on diskettes. Students also will be introduced to the microcomputer. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online environment. (Formerly BCIS 6/CIS 51)

BCOT 60
TELEPHONE TECHNIQUES / CUSTOMER SERVICE **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course teaches the importance of effective telephone techniques in the business office and the correct manner of identifying customer wants and needs. (Formerly BASS 60)

BCOT 61
TYPING / KEYBOARDING REVIEW **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: Computer keyboard skills and ability to type 25 wpm.
Recommendation: Concurrent enrollment in BCOT 3T.
This course provides a review for those students who have had previous typing experience and wish to improve their typing and formatting skills. This course can be taken in either a traditional or an on-line learning environment. (Formerly BASS 32/BASS 61)

BCOT 62
COMPUTER KEYBOARDING **1 UNIT**
Class hours: 2 lecture/1 lab (9 weeks)
Prerequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course is designed for data processing and accounting students who do not know how to touch type; executives/managers/operators who use computer work stations; people who seek data entry positions; and users of personal home computers. Touch typewriting of alphabetic, numeric, and symbol keys on computers is emphasized. This course can be taken in either a traditional or an on-line learning environment. (Formerly BASS 2/BASS 62)

BCOT 70
MEDICAL MACHINE TRANSCRIPTION **4 UNITS**
Class hours: 4 lecture/2 lab
Prerequisite: BCOT 61 or BCOT 131, BCOT 162, BCOM 46, and MA 161 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T and the ability to type 30 wpm.
This course prepares students in medical transcription common to a medical office. This course helps students to identify correct terminology, spell and define terms, and prepare appropriate forms. Reports are dictated in different accents, dialects, and gender voices, and are typed using appropriate word processing software to simulate real medical office environments. (Formerly BASS 65/BASS 70)

BCOT 71
COMPUTERS IN THE MEDICAL OFFICE **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: MA 60, MA 161 and concurrent enrollment in BCOT 3T.
This course prepares the medical/dental secretary or medical/dental office personnel to work as front office personnel in a health care practice. Students will learn to input patient information, schedule appointments, handle billing, handle insurance claims, and apply computer basics as they relate to the medical office. (Formerly BASS 67/BASS 71)

BCOT 72
INTRODUCTION TO PERSONAL DIGITAL ASSISTANT **.5 UNITS**
Class hours: 2 lecture/1 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to introduce students to functions of PDAs (Personal Digital Assistants) including PDA basics such as scroll, contrast, power buttons, infrared port, serial connector and the reset button. Students will input data through Graffiti and the onscreen Keyboard using the Date book, Address, to DO Memo Pad, and expense applications. Additional topics will include the HotSync (synchronizing) of files between the Desktop application on their personal computer and the PDA. Loading software and adding modules to the PDA will also be covered.

BCOT 80
PROCESSING LAW OFFICE DOCUMENTS **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: BCOT 108 or BL 57 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course introduces the student to the correct style for legal documents set by common usage or by court procedure. The specific formats required by law office documents will be emphasized. (Formerly BASS 17/BASS 80)

BCOT 81
LEGAL OFFICE PROCEDURES **4 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BCOT 131 or equivalent with a grade of Credit or "C" or higher. Ability to type 30 wpm.
Recommendation: Concurrent enrollment in BCOT 3T.
This course is designed to prepare students for employment as legal secretaries. It emphasizes procedures, preparations of calendars, wills, and probates. Students will learn how to document telephone calls, maintain financial records, and perform other secretarial duties relevant to a legal office. This course meets 90 hours of the legal requirement for Court Reporting certification. (Formerly BASS 50/BASS 81)

BCOT 82
SPANISH LEGAL OFFICE TERMINOLOGY / VOCABULARY **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: SPAN 112 or SPAN 201 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is for the person who has a basic background in the Spanish language and who needs to learn specific field-related terminology and vocabulary for the legal offices that serve Spanish-speaking clients. (Formerly BASS 51/BASS 82)

BCOT 83
LEGAL OFFICE TERMINOLOGY / MACHINE TRANSCRIPTION **4.5 UNITS**
Class hours: 4 lecture/2 lab
Prerequisite: BCOT 61 or BCOT 131, BCOT 162, and BCOM 46 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T and the ability to type 30 wpm.

This course is designed to teach the student legal terminology in order to be able to transcribe and key legal documents. The student will also learn the skills and knowledge necessary for the production of high-quality legal documents through the total transcription concept and for the development of proper machine dictation skills/procedures. The emphasis is on understanding, defining, and using over 900 terms in the legal context; skillful keyboarding; and accurate proofreading to produce quality, finished legal documents on electronic equipment/microcomputers. (Formerly BASS 64/BASS 83)

BCOT 89
INTERNET AS A BUSINESS COMMUNICATION TOOL **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BCOT 62 and concurrent enrollment in BCOT 3T.
This course is designed to teach students the technological skills necessary to communicate in today's e-commerce computer-oriented business environment. The course will cover electronic mail (e-mail), desktop publishing for electronic dissemination, Web page design, electronic presentations, and Outlook. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment. (Formerly BCOM 50)

BCOT 90
MICROSOFT WORD
CORE LEVEL **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course introduces the student to word processing functions on the IBM compatible personal computers using Microsoft Word for Windows software. Topics include Core Level MOUS skills for Microsoft Word functions such as creating, printing, and editing word documents, formatting documents, creating and formatting tables, inserting graphic elements; and exploring the Internet. This course prepares the student for Microsoft Office User Specialist (MOUS) Word Core Certification. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment.

BCOT 91
MICROSOFT WORD
EXPERT LEVEL **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course emphasizes advanced word processing functions on the IBM compatible personal computers using Microsoft Word for Windows software. Topics include Expert Level MOUS Skills for Microsoft Word functions such as formatting with special features; merging documents and sorting and selecting data; working with shared documents; creating tables and indexes; recording, running, and editing macros; creating fill-in forms; and adding visual appeal to documents. This course prepares the student for Microsoft Office User Specialist (MOUS) Word Expert Certification. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment.

BCOT 92
MICROSOFT EXCEL
CORE LEVEL **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course introduces the student to spreadsheet functions on the IBM compatible personal computers using Microsoft Excel for Windows software. Topics include Core Level MOUS Skills for Microsoft Excel functions such as preparing and formatting an Excel worksheet, maintaining and enhancing a worksheet, moving data within and between workbooks, inserting formulas in a worksheet, creating a chart in Excel, inserting clip art images, and creating maps. This course prepares the student for Microsoft Office User Specialist (MOUS) Excel Core Certification. This course can be taken in a traditional classroom setting, in a individualized modular setting, or in an online learning environment.

BCOT 93
MICROSOFT EXCEL
EXPERT LEVEL **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course emphasizes advanced spreadsheet functions on the IBM compatible personal computers using Microsoft Excel for Windows software. Topics include Expert Level MOUS Skills for Microsoft Excel functions such as formatting Excel worksheets using advanced formatting techniques; working with templates and workbooks, using advanced functions; working with lists; using Excel's analysis tools; managing and auditing worksheets; collaborating with workgroups; importing and exporting data. This course prepares the student for Microsoft Office User Specialist (MOUS) Excel Expert Certification. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment.

BCOT 96
MICROSOFT POWERPOINT
CORE / EXPERT LEVEL **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course introduces the student to beginning and advanced presentation functions on the IBM compatible personal computer using Microsoft PowerPoint for Windows software. Topics include Core/Expert Level MOUS Skills for Microsoft PowerPoint functions such as preparing, editing, and formatting a presentation; adding animation; using WordArt and creating organizational charts; adding visual elements; modifying a presentation; importing and exporting data; customizing and creating a slide show; and creating output and delivering presentations. This course prepares the student for Microsoft Office User Specialist (MOUS) PowerPoint Core Certification. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment.

BCOT 97
MICROSOFT OUTLOOK
CORE LEVEL **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course introduces the student Microsoft Outlook for Windows software, a Desktop Information Management (DIM) application. Topics include Core Level MOUS Skills for Microsoft Outlook functions such as providing the tools needed to send and receive e-mail; organizing schedules and events; and maintaining contact lists, to-do lists, notes, and a journal. This course prepares the student for Microsoft Office User Specialist (MOUS) Outlook Core Certification. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

BCOT 108
WORDPERFECT
FOR WINDOWS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Ability to type 30 wpm and concurrent enrollment in BCOT 3T.
This course offers students opportunities to learn WordPerfect for Windows, which is an advanced word processing program. This course will further prepare students for a successful business career. (Formerly BASS 8/BASS 108).
Transfer Credit: CSU

BCOT 110
DESKTOP PUBLISHING–WORDPERFECT
FOR WINDOWS **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: BCOT 108 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: BCOT 50 or equivalent with a grade of Credit or "C" or higher and concurrent enrollment in BCOT 3T.
This course is designed to be used by students already familiar with word processing. Applications of key concepts are designed to develop skills in critical thinking, decision making, and creativity in planning, designing, or evaluating documents--letterheads, business cards, personal documents, flyers, brochures, promotional documents, charts, transparencies, presentation materials, newsletters, reports, manuals, and booklets. The visual appeal of business and personal documents will be enhanced with variable page layouts using standardized type and graphic design techniques along with WordPerfect templates. (This course is intended for the business office professional and not the graphic artist.) (Formerly BASS 10/BASS 110)
Transfer Credit: CSU

BCOT 112
MICROSOFT WORD
FOR WINDOWS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Recommendation: Ability to type 30 wpm and concurrent enrollment in BCOT 3T.
This course introduces the student to beginning word processing and emphasizes advanced word processing functions on IBM compatible personal computers using Microsoft Word for Windows software. Topics include Core Level MOUS Skills for Microsoft Word functions such as creating, printing, and editing word documents; formatting text and using help; enhancing the visual display and clarity of documents; working with multiple documents, formatting documents, creating and formatting tables; inserting graphic elements; and exploring the Internet. Topics also include Expert Level Mous Skills for Microsoft Word functions such as formatting with special features; merging documents and sorting and selecting data; working with shared documents; creating tables and indexes; recording, running, and editing macros; creating fill-in forms; and adding visual appeal to documents. This course prepares the student for Microsoft Office User Specialist (MOUS) Word Core Certification and Word Expert Certification. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment. (This course is not open to students with credit in BCOT 90 and BCOT 91). (Formerly BASS 12/BASS 112)
Transfer Credit: CSU

BCOT 113
MICROSOFT EXCEL **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course introduces the student to beginning spreadsheet functions and emphasizes advanced spreadsheet functions on IBM compatible personal computer using Microsoft Excel for Windows software. Topics include Core Level MOUS Skills for Microsoft Excel functions such as preparing and formatting an Excel worksheet, maintaining and enhancing a worksheet, moving data within and between workbooks, inserting formulas in a worksheet, creating a chart in Excel, inserting clip art images, and creating maps. Topics also include Expert Level MOUS Skills for Microsoft Excel functions such as formatting Excel worksheets using advanced formatting techniques, working with templates and workbooks using advanced functions, working with lists, using Excel's analysis tools, managing and auditing worksheets, collaborating with workgroups, and importing and exporting data. This course prepares the student for Microsoft Office User Specialist (MOUS) Excel Core Certification and Microsoft Office User Specialist Expert Certification. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment. This course is not open to students with credit in BCOT 92 and BCOT 93.
Transfer Credit: CSU

BCOT 114
INTRODUCTION TO
MICROSOFT OFFICE **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Ability to type 30 wpm and concurrent enrollment in BCOT 3T.
This course is designed to teach students business applications software and office skills using windows compatible computers and Microsoft Office (Word, Excel, Access, and PowerPoint) to integrate the multifaceted tasks within the office environment. Concepts and skills include creating, editing, and printing letters, memos, reports, presentations, graphics, overheads, business figure analysis, miscellaneous office documents, and maintenance/modification of databases. This course can be taken in either a traditional or an on-line learning environment. (Formerly BASS 14/BASS 114)
Transfer Credit: CSU

BCOT 115
ADVANCED
MICROSOFT OFFICE **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BCOT 114 or equivalent with a grade of Credit of "C" or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course extends the students' basic knowledge of Microsoft Office (Microsoft Word, Microsoft Excel, Microsoft Access, and Microsoft PowerPoint). Students will learn the proper procedures to create advanced documents by designing, integrating, and merging letters, reports, workbooks, databases, and presentations suitable for professional purposes. It will help students demonstrate their proficiency in the Microsoft Office applications by preparing them to pass the core level Microsoft Office User Specialist (MOUS) exams. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online learning environment.
Transfer Credit: CSU

BCOT 116
DESKTOP PUBLISHING–
WORD FOR WINDOWS **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: BCOT 112 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: BCOT 51 or equivalent with a grade of Credit or "C" or higher.
This course is for students already familiar

with word processing. Applications of key concepts develop skills in critical thinking, decision making and creativity in planning, designing, and evaluating documents. These documents include letterheads, business cards, personal documents, flyers, brochures, promotional documents, charts, transparencies, presentation materials, newsletters, reports, manuals, and booklets. The visual appeal of business and personal documents is enhanced with variable page layouts using standardized type and graphic design techniques along with Word templates. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online environment. (This course is intended for the business office professional and not the graphic artist.) (Formerly BASS 16/BASS 116)
Transfer Credit: CSU

BCOT 117
DESKTOP PUBLISHING–
MICROSOFT PUBLISHER **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 105 or equivalent with a grade of Credit or "C" or higher.
This course provides an introduction to the functions of Microsoft Publisher software. Microsoft Publisher will be used to create camera-ready printed presentation materials. The course will cover the fundamentals required to develop presentation materials such as business forms, letterhead, business logos, advertisements, organization charts, mail-order catalogs, three-fold brochures, and newsletters. This course is intended for the business professional not the graphic artist. This course can be taken in a traditional classroom setting, in an individualized modular setting, or in an online environment. (Formerly BCIS 13, CIS 110)
Transfer Credit: CSU

BCOT 120
WORD PROCESSING
OFFICE SIMULATION **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BCOT 108 or BCOT 112 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment in BCOT 3T.
This course reinforces previously learned word processing keyboarding and language-arts skills. It introduces students to typical word processing procedures and activities in a realistic setting. It provides meaningful application materials for students who can operate word processing equipment. (Formerly BASS 20/BASS 120)
Transfer Credit: CSU

BCOT 131
BEGINNING TYPING /
KEYBOARDING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This is a basic course in typing designed to teach control of the keyboard by touch. The student will learn basic computer parts and terminology. This course can be taken in either a traditional or an on-line learning environment. (Formerly BASS 31/BASS 131)
Transfer Credit: CSU

BCOT 133
INTERMEDIATE TYPING /
KEYBOARDING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: Ability to type 30 wpm; BCOT 131 or BCOT 61 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment in BCOT 3T.
In this course the student develops speed and control in typing as well as attains a working knowledge of business papers, facility in tabulation, and skill in production typing. This course can be taken in either a traditional or an on-line learning environment. (Formerly BASS 33/BASS 133)
Transfer Credit: CSU

BCOT 134
ADVANCED TYPEWRITING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: Ability to type 40 wpm; BCOT 133 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment in BCOT 3T.
This advanced keyboarding class is taught on electronic typewriters. The emphasis is on advanced office skills which include editing, abstracting information, decision-making, prioritizing, planning work flow, following directions, and working under pressure and with interruptions. (Formerly BASS 34/ BASS 134)
Transfer Credit: CSU

BCOT 135
TYPEWRITING SPEED /
CONTROL BUILDING **1 UNIT**
Class hours: 2 lecture/1lab (9 weeks)
Prerequisite: Knowledge of keyboard and key strokes.
Recommendation: Concurrent enrollment in BCOT 3T.
This is a nine-week course designed to provide intensive training and practice in typewriting speed and control. The students will work independently toward their respective goals. This course may be taken for a maximum of 3 units. This course can be taken in either a traditional or an online environment. (Formerly BASS 35/BASS 135)
Transfer Credit: CSU

BCOT 155
ADMINISTRATIVE SECRETARIAL
PROCEDURES **4 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: BCOT 131 or equivalent with a grade of Credit or "C" or higher. Ability to type 30 wpm.
Recommendation: Concurrent enrollment in BCOT 3T.
This course will emphasize the planning, organizing, problem solving, and human relation skills needed by secretaries at the administrative level. Employed or re-entry office support personnel may use this class for a refresher course or for professional purposes. (Formerly BASS 55/BASS 155)
Transfer Credit: CSU

BCOT 161
PRINCIPLES OF FILING **1 UNIT**
Class hours: 2 lecture/1 lab (9 weeks)
Prerequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This is a computerized filing course that covers the principles of information processing, storage, and retrieval. Instruction is given in the rules of indexing and alphabetizing. A study will be made of geographic, numeric, subject, microfilming, and magnetic tape storage systems. Practice will be given in the processing of materials, filing, indexing, alphabetizing, coding, creating filenames and filename extensions for electronic files, and storing and retrieving electronic data to and from directories and subdirectories. (Formerly BASS 61/BASS 161)
Transfer Credit: CSU

BCOT 162
BUSINESS SPELLING AND
PROOFREADING SKILLS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
This course is designed to teach and reinforce accurate spelling, vocabulary, word usage, and proofreading skills with a distinct business orientation. It emphasizes the business context of these basic communications skills, which are needed for integration into other

courses such as typewriting, machine transcription, shorthand, office procedures, and court reporting. This course meets 54 hours of the English requirement for Court Reporting Certification. (Formerly BASS 62/BASS 162)
Transfer Credit: CSU

BCOT 163
MACHINE TRANSCRIPTION 4.5 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BCOT 61 or BCOT 131, BCOT 162 and BCOM 46 or equivalent courses with grades of Credit or "C" or higher. Ability to type 30 wpm.
Recommendation: Concurrent enrollment in BCOT 3T.
This is a course designed to teach the skills and knowledge necessary for the production of high-quality business documents through the total transcription concept (from handwritten copy, from machine dictation, or from shorthand dictation) and for the development of proper machine dictation skills/procedures. The emphasis is on the development of language arts skills, skillful keyboarding, and accurate proofreading in producing quality finished documents on electronic equipment/microcomputers. (Formerly BASS 63/BASS 163)
Transfer Credit: CSU

BCOT 173/174
BUSINESS COMPUTERIZED OFFICE TECHNOLOGIES OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: 1 hour/week coordination class.
Corequisite: Enrollment in 7 or more units, including Business Computerized Office Technologies Occupational Work Experience, in a declared business major. Three units of Business Computerized Office Technologies Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Computerized Office Technologies Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.
First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site.
Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BASS 73/74/BASS 171/174)
Transfer Credit: CSU

BUSINESS COURT REPORTING / COMPUTERIZED SHORTHAND

(Business Division)

BUSC 1T (Not degree applicable)
CAT TUTORIAL LAB 0 UNIT
Class hours: 1.5 lab
Prerequisite: BUSC 192 or equivalent with a grade of Credit or "C" or higher.
Corequisite: One or more of the following courses: BUSC 119A, BUSC 119B, BUSC 119C, BUSC 119D, BUSC 119E and/or BUSC 119F.
Recommendation: None.
This course assists development in computer-aided transcription applications in the court reporting courses. Students must attend 1.5 hours minimum per week and are limited to a maximum of three hours per week. (Formerly BUSC 8

BUSC 2T (Not degree applicable)
COMPUTER-AIDED TRANSCRIPTION LAB 0 UNIT
Class hours: 1 lab
Prerequisite: None.
Corequisite: Enrollment in any Business Court Reporting course.
Recommendation: None.
This required court reporting computer lab gives the students the opportunity to transcribe lessons and tests under supervision. Students must attend one hour per week multiplied by the number of court reporting courses in which the students are enrolled that require this lab. (Formerly BUSC 10)

BUSC 3T (Not degree applicable)
BUSINESS COURT REPORTING-TYPING LAB 0 UNIT
Class hours: 2 lab
Corequisite: One or more of the following courses: BUSC 57A, 57B, 114, 115,116, 118, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 156, 157, 158, 159, 180, 181, or 192.
This required court reporting typing lab gives the students the opportunity to transcribe lessons and tests under supervision. Students must attend two hours minimum per week multiplied by the number of court reporting courses in which the students are enrolled that require this lab. (Formerly BUSC 11)

BUSC 4T (Not degree applicable)
BUSINESS COURT REPORTING-TAPE LAB 0 UNIT
Class hours: 2 lab
Corequisite: One or more of the following courses: BUSC 114, 115,116, 118, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 152, 153, 154, 155, 156, 157, 158, 159, 180, 181, or 192.
This required court reporting tape lab gives the students an opportunity to increase speed and skill in practicing dictation from tapes and to gain exposure to increasingly difficult and specialized vocabularies. All Court Reporting students must enroll in this two-hour lab course. (Formerly BUSC 12)

BUSC 5T (Not degree applicable)
CSR QUALIFYING EXAM TRANSCRIPTION LAB 0 UNIT
Class hours: 1 hr. lab arr.
Prerequisite: Stenotype speed of 190 wpm, typing speed of 60 wpm, and completion of 60 hours of apprenticeship training.
Corequisite: BUSC 129, BUSC 149, or BUSC 159.
Recommendation: None.
This course assists development in transcription of the CSR Qualifying Exam for students preparing to take the State Certified Shorthand Reporters (CSR) Exam. Students must attend one hour minimum per week and are limited to a maximum of three hours per week. (Formerly BUSC 9)

BUSC 50
COMPUTER-AIDED PROOFREADING 2 UNITS
Class hours: 2 lecture/1lab
Prerequisite: BUSC 192 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: BUSC 57A and BUSC 142 or equivalent with grades of Credit or "C" or higher.
This course is designed to help students acquire the skills necessary to proofread accurately and correct computer transcripts of legal proceedings. Proofreading is an essential step in the production of all computer-aided transcripts, including court records and deposition transcripts. This course may be taken for a maximum of 4 units. (Formerly BUSC 92.1)

BUSC 57A
BEGINNING AURAL LANGUAGE SKILLS FOR COURT REPORTERS 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSC 140 and BUSC 141 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 2T and BUSC 3T.
Recommendation: BCOM 46 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes the grammar, punctuation, and capitalization of spoken language including vocabulary building with an emphasis on spelling, homophone differentiation, and stenotype machine outlines requisite for realtime computer transcription. (Formerly BUSC 17)

BUSC 57B
ADVANCED AURAL LANGUAGE SKILLS FOR COURT REPORTERS 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSC 57A, BUSC 140, and BUSC 141 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 2T and BUSC 3T.
Recommendation: BCOM 46 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the study of the grammar, punctuation, and capitalization of spoken language with emphasis on further developing the students' ability to analyze and correctly apply rules of punctuation, word usage, and spelling to increasingly complex sentence structures. Additional emphasis will be placed on the creation of stenotype machine outlines requisite for realtime computer translation. (Formerly BUSC 17.1)

BUSC 113
LEGAL TERMINOLOGY 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: BUSC 140 or equivalent with a grade of Credit or "C" or higher.
This course is designed to familiarize the students with legal terminology, which will prepare the students to become proficient in recognizing, using, and spelling legal terminology. This course will help the students master unfamiliar keying patterns and enhance the development of computerized shorthand skills. (Formerly BUSC 13)
Transfer Credit: CSU

BUSC 114
MEDICAL TERMINOLOGY FOR MACHINE SHORTHAND 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSC 142 or equivalent with a grade of Credit or "C" or higher.
Recommendation: MA 161 or equivalent with a grade of Credit or "C" or higher.
This course of study involves medical dictation at varying degrees of speed. Dictation will include words peculiar to the human anatomy, including the skeletal structure, and medical prefixes and suffixes. Definitions of these words, pronunciation, and accuracy of transcript will be stressed. Dictation will be given for examinations, diagnoses, laboratory investigations, patient case histories, operation reports, medical records, and autopsy reports. (Formerly BUSC 14)
Transfer Credit: CSU

BUSC 115
MEDICAL SHORTHAND FOR COURT REPORTERS 4 UNITS
Class hours: 4 lecture/1 lab
Prerequisite: BUSC 114 and BUSC 143 or equivalent with grades of Credit or "C" or higher.
Recommendation: MA 161 or equivalent with a grade of Credit or "C" or higher.
This course is designed to reinforce medical terminology and to build shorthand speed from dictation on familiar medical transcripts and other related material including medications, nuclear medicine, laboratory and X-ray procedures. (Formerly BUSC 15)
Transfer Credit: CSU

BUSC 116
INTRODUCTION TO COURTROOM PROCEDURES 4 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BUSC 144 or equivalent with a grade of Credit or "C" or higher.
This course is designed to give an overall view of the judicial system. In addition, the course content traces lawsuits and civil and criminal procedures from their inception through the trial and appeal. This course places emphasis on the court reporter's role at each phase of the trial. (Formerly BUSC 16)
Transfer Credit: CSU

BUSC 118
DEPOSITION PROCEDURES, CODES AND ETHICS 4 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BUSC 144 or equivalent with a grade of Credit or "C" or higher.
This course provides a thorough understanding of deposition procedures, ethics, reference techniques, management skills, and introduces the California Codes pertinent to depositions. This course provides an opportunity to develop management techniques and an understanding of professional practices. (Formerly BUSC 18)
Transfer Credit: CSU

BUSC 119A
BEGINNING COMPUTER-AIDED TRANSCRIPTION 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 141 or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 142 or equivalent.
This course introduces students to the Computer-Aided Transcription (CAT) process. It includes some history of CAT and some computer terminology. Students receive instruction in basic English text entry and nontechnical dictionary building. Students will be required to have an electronic stenotype machine or purchase a Prowriter attachment for their stenotype machine to create personal dictionaries of approximately 20,000 words. This course may be taken for a maximum of 4 units. (Formerly BUSC 19.1)
Transfer Credit: CSU

BUSC 119B
INTERMEDIATE COMPUTER-AIDED TRANSCRIPTION 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 119A or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 143 or equivalent.
This CAT course includes scoping, editing, transcribing, spell checking, formatting, and printing a document. Students use the Prowriter attachment or electronic stenotype machine to continue preparing their personal dictionaries on a disk. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.2)
Transfer Credit: CSU

BUSC 119C
ADVANCED COMPUTER-AIDED TRANSCRIPTION 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 119B or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 144 or equivalent.
This advanced CAT course integrates taking verbatim proceedings with the Prowriter attachment or an electronic stenotype machine, sending the notes to the computer, then scoping, editing, printing, and electronically filing the final document. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.3)
Transfer Credit: CSU

BUSC 119D
BASIC CONCEPTS OF REALTIME 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 119C or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSC 1T.
Recommendation: None.
This course introduces students to the principles of realtime writing for computer-aided transcription (CAT). It provides a complete plan for analyzing personal writing techniques, developing a consistent writing style, and implementing a step-by-step plan to reinforce realtime writing using a current court reporting CAT software system. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.4)
Transfer Credit: CSU

BUSC 119E
COMPUTER-AIDED MEDICAL DICTIONARY BUILD 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 114 and BUSC 119B or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 1T.
Recommendation: MA 161 or equivalent with a grade of Credit or "C" or higher.
This course is for students proficient in computerized machine shorthand writing skills and who are interested in a stenographic computer-aided medical transcribing career. It provides a systematic approach toward building a basic personal medical dictionary. The dictionary entries include Latin and Greek prefixes, roots, suffixes and combining forms as well as medical terminology that will be created using a computer-aided transcription (CAT) software system. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.5)
Transfer Credit: CSU

BUSC 119F
COMPUTER-AIDED LEGAL DICTIONARY BUILD 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 119B or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSC 1T.
Recommendation: None.
This course is for students proficient in computerized machine shorthand writing skills and who are interested in a career path in legal transcribing or court reporting. It provides a systematic approach toward building a basic legal computer-aided transcription (CAT) dictionary. Entries into the CAT dictionary include Latin and Greek prefixes, suffixes, roots, and combining forms of legal terminology used in various aspects of the legal system. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.6)
Transfer Credit: CSU

BUSC 125
COMPUTERIZED SHORTHAND REALTIME PRACTICUM I (100-130 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 143 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or "C" or higher.
This course continues intensive sustained dictation to improve realtime writing and computer transcription ability. Latin and French words, Congressional Record, multiple-voice testimony, legal opinions, and expert opinion materials in realtime are included. This course may be taken for a maximum of 6 units. (Formerly BUSC 25)
Transfer Credit: CSU

BUSC 126
COMPUTERIZED SHORTHAND REALTIME PRACTICUM II (120-150 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 144 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or "C" or higher.
This course continues intensive sustained dictation to improve realtime writing and computer transcription ability. Latin and French words, Congressional Record, multiple-voice testimony, Final Argument, Opening Statement and Conference at the Bench broaden keying vocabulary. This course may be taken for a maximum of 9 units. (Formerly BUSC 26)
Transfer Credit: CSU

BUSC 127
COMPUTERIZED SHORTHAND REALTIME PRACTICUM III (140-170 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 145 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or "C" or higher.
This course develops realtime stenotype techniques and speed through the use of sustained dictation consisting of Congressional Record, literary, jury charge, and multiple-voice testimony. This course may be taken for a maximum of 9 units. (Formerly BUSC 27)
Transfer Credit: CSU

BUSC 128
COMPUTERIZED SHORTHAND REALTIME PRACTICUM IV (160-190 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 146 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or "C" or higher.
This course develops realtime stenotype techniques and speed through the use of sustained dictation consisting of Congressional Record, literary, jury charge, and multiple-voice testimony. In addition, this course prepares advanced students for various state and city hearing reporter examinations and employment. This course may be taken for a maximum of 12 units. (Formerly BUSC 28)
Transfer Credit: CSU

BUSC 129
COMPUTERIZED SHORTHAND REALTIME PRACTICUM V (180-210 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 147 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 1T, BUSC 2Tand BUSC 5T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or "C" or higher.
This course offers intensive sustained dictation to increase realtime capability and to prepare advanced students for the Certified Realtime Reporter (CRR) examination and various positions. Simulated courtroom proceedings will be used as a means to qualify for the State Boards. This course may be taken for a maximum of 12 units. (Formerly BUSC 29)
Transfer Credit: CSU

BUSC 130
COMPUTERIZED SHORTHAND REALTIME PRACTICUM VI (190-225 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 148 or equivalent with grades of Credit or "C" or higher.

Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or "C" or higher.
This course offers the student intensive, sustained dictation to increase realtime accuracy, endurance, and speed. The student is prepared for the National Court Reporters Certified Realtime Reporter Examination (CRR). This course may be taken for a maximum of 12 units. (Formerly BUSC 30)
Transfer Credit: CSU

BUSC 139
EXPLORING CAREER OPPORTUNITIES IN COURT REPORTING **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the new and continuing student an overview of the various career paths and emerging opportunities available to students who are interested in studying court reporting. Students are guided through an overview of current career paths available and through the process of developing a personalized education plan in court reporting. This course may be taken for a maximum of 2 units. (Formerly BUSC 39)
Transfer Credit: CSU

BUSC 140
COMPUTERIZED SHORTHAND THEORY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BCOM 46 or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSC 3T, BUSC 4T and BUSC 141.
Recommendation: Minimum typing speed of 35 wpm or enrollment in a typing class.
This first semester course covers the basic theory of computer compatible shorthand and mastery of the stenotype keyboard. (Formerly BUSC 40)
Transfer Credit: CSU

BUSC 140A
COMPUTERIZED SHORTHAND THEORY A **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: BUSC 141A.
Recommendation: Minimum typing speed of 35 wpm or enrollment in a typing class.
This first-semester course covers the basic theory of computer compatible shorthand and mastery of the stenotype keyboard. This course is not open to students with credit in BUSC 140 or prior credit in BUSC 140A and BUSC 140B.
Transfer Credit: CSU

BUSC 140B
COMPUTERIZED SHORTHAND THEORY B **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: BUSC 141B.
Recommendation: Minimum typing speed of 35 wpm or enrollment in a typing class.
This second-semester course covers the basic theory of computer compatible shorthand and mastery of the stenotype keyboard. This course is not open to students with credit in BUSC 140 or prior credit in BUSC 140A and BUSC 140B.
Transfer Credit: CSU

BUSC 141
COMPUTERIZED SHORTHAND THEORY REVIEW / SKILL DEVELOPMENT **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: BUSC 3T, BUSC 4T and BUSC 140.
Recommendation: Minimum typing speed of 35 wpm or enrollment in a typing class.
This course is an intensive review of the basic theory of computer compatible shorthand and is designed to complement the corresponding theory class through review of the lessons as they are completed. This course may be taken for a maximum of 6 units. This course may be taken for a maximum of 3 units if a student has previously received credit in BUSC 141A and BUSC 141B. (Formerly BUSC 41)
Transfer Credit: CSU

BUSC 141A
COMPUTERIZED SHORTHAND THEORY REVIEW / SKILL DEVELOPMENT A **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: BUSC 140A.
Recommendation: Minimum typing speed of 35 wpm or enrollment in a typing class.
This course is an intensive review of the first semester of the basic theory of computer compatible shorthand and is designed to complement the corresponding theory class through review of the lessons as they are completed. This course may be taken for a maximum of 3 units. Student with prior credit in BUSC 141 may enroll in this course for a maximum of 1.5 units.
Transfer Credit: CSU

BUSC 141B
COMPUTERIZED SHORTHAND THEORY REVIEW / SKILL DEVELOPMENT B **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: BUSC 140B.
Recommendation: Minimum typing speed of 35 wpm or enrollment in a typing class.
This course is an intensive review of the second semester of the basic theory of computer compatible shorthand and is designed to complement the corresponding theory class through review of the lessons as they are completed. This course may be taken for a maximum of 3 units. Students with prior credit in BUSC 141 may enroll in this course for a maximum of 1.5 units.
Transfer Credit: CSU

BUSC 142
INTERMEDIATE COMPUTERIZED SHORTHAND **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 140 and BUSC 141 or equivalent with grades of Credit or "C" or higher. May be taken concurrently with BUSC 141 and BUSC 143.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119A.
Recommendation: Minimum typing speed of 40 wpm or enrollment in a typing class.
This course provides basis for developing, refining, and improving machine skill and speed. Emphasis is placed on frequently used words and phrases, word families, number drills, legal terms, literary and business dictation, and two-voice question and answer testimony. This course may be taken for a maximum of 6 units. (Formerly BUSC 42)
Transfer Credit: CSU

BUSC 143
COMPUTERIZED SHORTHAND SPEED BUILDING I **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 142 or equivalent with a grade of Credit or "C" or higher.
May be taken concurrently with BUSC 142 and BUSC 144.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119B.
Recommendation: Minimum typing speed of 43 wpm or enrollment in a typing class.
This course provides a continuing basis to further develop, refine, and improve machine shorthand skill and speed. In addition to the areas emphasized in previous classes, jury charge and multiple-voice colloquy are included. This course may be taken for a maximum of 6 units. (Formerly BUSC 43)
Transfer Credit: CSU

BUSC 144
COMPUTERIZED SHORTHAND SPEED BUILDING II **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 143 or equivalent with a grade of Credit or "C" or higher.
May be taken concurrently with BUSC 143 and BUSC 145.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119C.
Recommendation: Minimum typing speed of 47 wpm or enrollment in a typing class.
This course continues intensive sustained dictation to increase machine shorthand speed and to improve transcription ability. Latin and French words, Congressional Record, multiple-voice testimony, legal opinions, and expert opinion materials are included. This course may be taken for a maximum of 6 units. (Formerly BUSC 44)
Transfer Credit: CSU

BUSC 145
COMPUTERIZED SHORTHAND SPEED BUILDING III **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 144 or equivalent with a grade of Credit or "C" or higher.
May be taken concurrently with BUSC 144 and BUSC 146.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119D.
Recommendation: Minimum typing speed of 50 wpm or enrollment in a typing class.
This course continues intensive sustained dictation to increase machine shorthand speed and to improve transcription ability. Latin and French words, Congressional Record, Multiple-voice testimony, Final Argument, Opening Statement, and Conference at the Bench broaden keying vocabulary. This course may be taken for a maximum of 9 units. (Formerly BUSC 45)
Transfer Credit: CSU

BUSC 146
COMPUTERIZED SHORTHAND SPEED BUILDING (140-170 WPM) **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 145 or equivalent with a grade of Credit or "C" or higher.
May be taken concurrently with BUSC 145 and BUSC 147.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Minimum typing speed of 55 wpm or enrollment in a typing class.
This course is designed to develop stenotype techniques and speed through the use of sustained dictation consisting of Congressional Record, literary, jury charge, and multiple-voice testimony. This course may be taken for a maximum of 9 units. (Formerly BUSC 46)
Transfer Credit: CSU

BUSC 147
COMPUTERIZED SHORTHAND SPEED BUILDING (160-190 WPM) **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 146 or equivalent with a grade of Credit or "C" or higher.
May be taken concurrently with BUSC 146 and BUSC 148.
Corequisite: BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 185.
Recommendation: Minimum typing speed of 60 wpm or enrollment in a typing class.
This course is designed to develop stenotype techniques and speed through the use of sustained dictation consisting of Congressional Record, literary, jury charge, and multiple-voice testimony. In addition, this course is designed to prepare advanced students for various state and city hearings reporter examinations and employment. This course may be taken for a maximum of 12 units. (Formerly BUSC 47)
Transfer Credit: CSU

BUSC 148
COMPUTERIZED SHORTHAND SPEED BUILDING (180-210 WPM) **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 147 and BUSC 185 or equivalent with grades of Credit or "C" or higher.
May be taken concurrently with BUSC 147 and BUSC 149.
Corequisite: BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 173.
Recommendation: Minimum typing speed of 60 wpm or enrollment in a typing class.
This course offers intensive sustained dictation to increase machine shorthand speeds and to prepare advanced students for the CSR examination and various positions. Simulated courtroom proceedings will be used as a means to qualify for the State Boards. This course may be taken for a maximum of 12 units. (Formerly BUSC 48)
Transfer Credit: CSU

BUSC 149
COMPUTERIZED SHORTHAND SPEED BUILDING (190-225 WPM) **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 148 and BUSC 185 or equivalent with grades of Credit or "C" or higher.
May be taken concurrently with BUSC 148.
Corequisite: BUSC 2T, BUSC 3T, BUSC 4T and BUSC 5T.
Recommendation: Minimum typing speed of 60 wpm and completion of 60 hours of apprenticeship training.
This course is designed to offer intensive sustained dictation to increase endurance and speed. In addition, this course offers a comprehensive academic review in preparation for the Certified Shorthand Reporters and the National Court Reporters examinations. This course may be taken for a maximum of 12 units. (Formerly BUSC 49)
Transfer Credit: CSU

BUSC 152
INTRODUCTION TO JURY CHARGE INTERMEDIATE COMPUTERIZED SHORTHAND **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: BUSC 140 and BUSC 141 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 40 wpm.
This short-term, intensive course is designed to introduce methodology of reporting and transcribing jury charge material and to develop punctuation skills, formatting techniques, and stenotype speed for this aspect of reporting. Sustained dictation consists of jury charge and two-voice testimony. This course develops proficiency in recording jury charge material at speeds ranging from 60-90 wpm. This course may be taken for a maximum of 6 units. (Formerly BUSC 52)
Transfer Credit: CSU

BUSC 153
MULTIPLE-VOICE COLLOQUY I COMPUTERIZED SHORTHAND SPEED BUILDING I **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 70 wpm.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 43 wpm.
This short-term, intensive course promotes the development of speed, accuracy, and formatting techniques in reporting and transcribing multiple-voice colloquy. This course develops proficiency in recording colloquy at speeds ranging from 80-110 wpm. Sustained dictation consists of multiple-voice colloquy, jury charge, and two-voice testimony. This course may be taken for a maximum of 6 units. (Formerly BUSC 53)
Transfer Credit: CSU

BUSC 154
INTRODUCTION TO CONGRESSIONAL RECORD COMPUTERIZED SHORTHAND SPEED BUILDING II **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 90 wpm.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 47 wpm.
This short-term, intensive course introduces methodology of reporting and transcribing Congressional Record material and develops punctuation skills, formatting techniques, and stenotype speed for this aspect of reporting. Sustained dictation consists of Congressional Record, jury charge, and two-voice testimony. This course develops proficiency in recording Congressional Record material at speeds ranging from 100-130 wpm. This course may be taken for a maximum of 6 units. (Formerly BUSC 54)
Transfer Credit: CSU

BUSC 155
MULTIPLE-VOICE COLLOQUY II COMPUTERIZED SHORTHAND SPEED BUILDING III **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 110 wpm.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 50 wpm.
This short-term, intensive course further promotes the development of speed, accuracy, and formatting techniques in reporting and transcribing increasingly complex multiple-voice colloquy. This course develops proficiency in recording colloquy at speeds ranging from 120-150 wpm. Sustained dictation consists of multiple-voice colloquy, jury charge, Congressional Record, and two-voice testimony. This course may be taken for a maximum of 9 units. (Formerly BUSC 55)
Transfer Credit: CSU

BUSC 156
JURY VOIR DIRE PROCEDURES COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (140-170 WPM) **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 130 wpm.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Minimum typing speed of 55 wpm.
This short-term, intensive course is designed to introduce methodology of reporting jury voir dire and to develop management techniques and stenotype speed for this aspect of reporting. The course develops proficiency in recording jury voir dire proceedings and jury charge at speeds ranging from 150-160 wpm. This course may be taken for a maximum of 9 units. (Formerly BUSC 56)
Transfer Credit: CSU

BUSC 157
CONGRESSIONAL TESTIMONY COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (160-190 WPM) **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 150 wpm.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Minimum typing speed of 60 wpm.
This short-term, intensive course promotes the development of speed and accuracy in taking dictation at the machine. Sustained dictation consists of Congressional Record, literary, jury charge, and multiple-voice testimony. This course also prepares advanced students for various state and city hearing reporter examinations. This course may be taken for a total of 9 units. (Formerly BUSC 57)
Transfer Credit: CSU

BUSC 158
PROFESSIONAL PRACTICES HEARINGS / CONFERENCES COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (180-210 WPM) **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 170 wpm.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Minimum typing speed of 60 wpm.
This short-term intensive course is designed to introduce methodology of reporting hearings and conferences with multiple-speaker identification symbols and to develop management techniques and stenotype speed for this aspect of reporting. This course provides for the development of proficiency in writing multiple-voice dictation with an emphasis on hearings and conferences at speeds ranging from 180-210 wpm. This course may be taken for a maximum of 9 units. (Formerly BUSC 58)
Transfer Credit: CSU

BUSC 159
IN CURIA / IN CAMERA PROCEDURES COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (190-225 WPM) **3 UNITS**
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 180 wpm.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T; or BUSC 3T, BUSC 4T, and BUSC 5T.
Recommendation: Minimum typing speed of 60 wpm and completion of 60 hours of apprenticeship training.
This course offers an overall view of the mechanics of trials and applications of court procedures. Students are assisted in acquiring a mastery of creating verbatim records. In addition, the course offers sustained dictation on all aspects of criminal and civil trials to develop professionalism. This course may be taken for a maximum of 9 units. (Formerly BUSC 59)
Transfer Credit: CSU

BUSC 173 / 174
BUSINESS COURT REPORTING / COMPUTERIZED SHORTHAND OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Court Reporting/ Computerized Shorthand Occupational Work Experience, in a declared business major. Three units of Business Court Reporting/ Computerized Shorthand Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Court Reporting/ Computerized Shorthand Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BUSC 73/BUSC 74)
Transfer Credit: CSU

BUSC 180
COMPUTERIZED SHORTHAND SPEED BUILDING (225 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: Minimum stenotype speed of 190 wpm and typing speed of 60 wpm.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Strongly recommend completion of CSR academic requirements and Court Reporting CAT computer classes.
This course is designed for potential Certified Shorthand Reporter Examination candidates and Registered Professional Reporter Examination candidates. It will provide intensive sustained dictation at 225-240 wpm to develop speed and endurance on the steno machine. This course may be taken for a maximum of 12 units. (Formerly BUSC 80)
Transfer Credit: CSU

BUSC 181
COMPUTERIZED SHORTHAND SPEED BUILDING (240 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: Minimum stenotype speed of 225 wpm and typing speed of 60 wpm.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Strongly recommend completion of CSR academic requirements and Court Reporting CAT computer classes.
This course is designed for candidates for the Certified Shorthand Reporter examination, the Registered Professional Reporter examination, and the Registered Merit Reporter examination. It will provide intensive, sustained dictation at 240-260 wpm to develop speed, accuracy, and endurance on the steno machine. (Formerly BUSC 81)
Transfer Credit: CSU

BUSC 185
CSR / RPR EXAMINATION PREPARATION 1.5 UNITS
Class hours: 1.5 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend completion of Certified Shorthand Reporter's academic requirements.
This course is designed for potential Certified Shorthand Reporter Examination candidates and Registered Professional Reporter Examination candidates. It will provide academic preparation and reinforcement in selected subject areas. This course may be taken for a maximum of 4.5 units. (Formerly BUSC 85)
Transfer Credit: CSU

BUSC 190
MEDICAL TRANSCRIPTION I / COURT REPORTING METHOD 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSC 114 and BUSC 142 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 119E.
Recommendation: MA 161 or equivalent with a grade of Credit or "C" or higher.
This course matches the skilled stenotypist with the computer to generate typical and atypical medical reports for the medical and insurance industries. The course introduces the student to medical transcription format, equipment, and procedures, as well as standardized terminology in the areas of radiology, pathology, gerontology, obstetrics, physical therapy, hearing impairments, and pharmacology. Medico-legal ethics and medical reference books are also covered. This course may be taken for a maximum of 6 units. (Formerly BUSC 90)
Transfer Credit: CSU

BUSC 191
MEDICAL TRANSCRIPTION II / COURT REPORTING METHOD 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: BUSC 119E, BUSC 190, and A&P 120 or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 143 and BUSC 174 or equivalent.
Recommendation: MA 161 or equivalent with a grade of Credit or "C" or higher.
This course is for the advanced stenotypist using the computer to generate medical reports for the medical and insurance industries. This course incorporates acquisition and maintenance of equipment; modems as utilized by the medical transcriptionist; professional organizations and certifications; professional development; advanced medical transcription; as well as standardized terminology in the areas of pharmacology, surgery, nuclear medicine, oncology and/or chemotherapy, dentistry, and emergency room procedures. This course may be taken for a maximum of 6 units. (Formerly BUSC 91)
Transfer Credit: CSU

BUSC 192
TRANSCRIPTION PROCEDURES 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: BUSC 141 or equivalent with a grade of Credit or "C" or higher and the ability to type 40 wpm.
This course is designed to help students acquire the skills necessary to properly format transcript data of court proceedings. This formatting relates to all types of legal and court documents including deposition transcripts. This course may be taken for a maximum of 4 units. (Formerly BUSC 92)
Transfer Credit: CSU

BUSC 193
BASIC CAPTIONING 4.5 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BUSC 144 and BUSC 119B or equivalent with grades of Credit or "C" or higher.
Corequisite: BUSC 1T
Recommendation: None.
This course is designed to teach students the basics of realtime captioning as applied to broadcast captioning; captioning of video and other media; captioning for hearing impaired at public gatherings, meetings, and in the classroom; captioning over the Internet; students will develop new applications for this new and emerging technology which includes online and offline captioning, as well as open and closed captioning. This course includes hands-on captioning assignments designed to familiarize students with captioning software and application. This course may be taken for a maximum of 9 units.
Transfer Credit: CSU

BUSINESS ENGLISH / WRITING

SEE BCOM
(Business Communications)

BUSINESS FINANCE

(Business Division)

BUSF 50
ELECTRONIC CALCULATORS / BUSINESS APPLICATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to teach students how to properly operate electronic calculators. Students will learn how electronic display calculators work, how to properly enter data using the ten-key keyboard, and how electronic calculators are used in business to solve practical problems. Techniques learned in this class can be applied to data processing and accounting classes. (Formerly BUSF 15)

BUSF 51
RETIREMENT PLANNING
AND INVESTING **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces methods of computing amounts to be saved and invested in order to fund retirement. The course also discusses various retirement plans available. Additionally, students will learn techniques to research and evaluate mutual fund investment opportunities. (Formerly BUSF 30)

BUSF 125
PERSONAL FINANCE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This survey course will cover the following topics: the management of personal income and expenditures; commercial and savings accounts; budgets; charge accounts; installment buying; and borrowing money; property, income, estate, inheritance, and gift taxes; life, health, accident, property, and miscellaneous insurance; pension plans and social security; owning a home; investing in securities and trust funds; and wills. This course can be taken in either a traditional or an on-line learning environment. (Formerly BUSF 25)
Transfer Credit: CSU

BUSF 126
INTRODUCTION TO STOCK
MARKET AND INVESTMENTS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course will cover the following subject areas: how to invest in the stock market; the various kinds of stocks, bonds, warrants, and rights; investment objectives; investment systems; the Broker's part in investment; stock exchanges; how stocks are traded and reported in the newspaper; investment vocabulary, mutual funds, and investment companies. (Formerly BUSF 26)
Transfer Credit: CSU

BUSINESS PARALEGAL

(Business Division)

BL 1T (Not degree applicable)
LEGAL-COMPUTER TUTORIAL **0 UNIT**
Class hours: 1 hour per week as arranged
Prerequisite: BL 56 or CIS 102 or equivalent with a grade of Credit or "C" or higher.
Corequisite: Concurrent enrollment in one or more advanced Business Paralegal (BL) course.
This course is designed to assist development in computer applications in the advanced Business Paralegal courses. Students must attend one hour minimum per week and are limited to a maximum of three hours per week. (Formerly BL 21)

BL 52
LAW OFFICE MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: BL 56 or prior completion with a grade of Credit or "C" or higher.
Recommendation: None.
This course is a study of law office management and organization. Roles, activities, and responsibilities in timekeeping and accounting systems for law offices, as well as legal calendaring, file organization, and retrieval systems, will be taught. Law office computers and their functions in the law office will be utilized. (Formerly BL 5)

BL 56
INTRODUCTION TO COMPUTERIZED
LEGAL SOFTWARE **3 UNITS**
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
This is an introductory course in the utilization of legal software. The student will use software in conjunction with a document control system that will include applications for the following law office functions: document maintenance, document retrieval, document construction, document billing, and document calendaring. (Formerly BL 9)

BL 57
LEGAL DOCUMENT
PRODUCTION **3 UNITS**
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56 or BCOT 108 or equivalent with a grade of Credit or "C" or higher.
This is a course in the production of legal documents using WordPerfect. Topics covered include the development and production of client worksheets, fee agreements, fax forms, interrogatories, legal briefs, office newsletters, deposition summaries, pleadings, and trial notebooks. Students will create these legal documents on a computer. (Formerly BL 9.1)

BL 65A
EXCEL SPREADSHEET
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of spreadsheet software for the legal applications using Excel. Students will learn to calculate and manipulate numbers using labels, values, and formulas in the legal environment. Through hands-on practice, students will learn to track figures, anticipate income and expenses, prepare financial documents, and maintain information for the law office. Students will learn how to plan and create a spreadsheet and how spreadsheets are used in the legal environment.

BL 65B
MICROSOFT WORKS SPREADSHEET
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of spreadsheet software for the legal applications using Microsoft Works. Students will learn to calculate and manipulate numbers using labels, values, and formulas in the legal environment. Through hands-on practice, students will learn to track figures, anticipate income and expenses, prepare financial documents, and maintain information for the law office. Students will learn how to plan and create a spreadsheet and how spreadsheets are used in the legal environment.

BL 65C
QUATRO PRO SPREADSHEET
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of spreadsheet software for the legal applications using Quatro Pro. Students will learn to calculate and manipulate numbers using labels, values, and formulas in the legal environment. Through hands-on practice, students will learn to track figures, anticipate income and expenses, prepare financial documents, and maintain information for the law office. Students will learn how to plan and create a spreadsheet and how spreadsheets are used in the legal environment.

BL 65D
LOTUS SPREADSHEET
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of spreadsheet software for the legal applications using Lotus 1-2-3. Students will

learn to calculate and manipulate numbers using labels, values, and formulas in the legal environment. Through hands-on practice, students will learn to track figures, anticipate income and expenses, prepare financial documents, and maintain information for the law office. Students will learn how to plan and create a spreadsheet and how spreadsheets are used in the legal environment.

BL 66A
ACCESS DATABASE
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Access database software for the legal environment applications. Through hands-on experience, students will learn to collect, track, analyze, and maintain information in the legal environment. Students will learn what a database is and how a database is structured. This course provides an overview of database functions and covers how a database can be used in the legal environment.

BL 66B
PARADOX DATABASE
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Paradox database software for the legal environment applications. Through hands-on experience, students will learn to collect, track, analyze, and maintain information in the legal environment. Students will learn what a database is and how a database is structured. This course provides an overview of database functions and covers how a database can be used in the legal environment.

BL 66C
APPROACH DATABASE
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Approach database software for the legal environment applications. Through hands-on experience, students will learn to collect, track, analyze, and maintain information in the legal environment. Students will learn what a database is and how a database is structured. This course provides an overview of database functions and covers how a database can be used in the legal environment.

BL 66D
WORLDOX DATABASE
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of WORLDOX presentations software for the legal environment applications. Students will design, create, and edit slide shows with outlines and clip art to enhance presentations. Through hands-on practice, students will learn to combine text and graphic images to develop computerized slide shows, transparencies, and charts for group presentations in the legal environment only.

BL 66E
INMAGIC DATABASE
FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of iManage database software for the legal environment applications. Through hands-on experience, students will learn to collect, track, analyze, and maintain information in the legal environment. Students will learn what a database is and how a database is structured. This course provides an overview of database functions and covers how a database can be used in the legal environment.

BL 66F
MICROSOFT WORKS
DATABASE FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Microsoft Works database software for the legal environment applications. Through hands-on experience, students will learn to collect, track, analyze, and maintain information in the legal environment. Students will learn what a database is and how a database is structured. This course provides an overview of database functions and covers how a database can be used in the legal environment.

BL 67A
POWERPOINT GRAPHICS
PRESENTATIONS FOR
THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of PowerPoint presentations software for the legal environment applications. Students will design, create, and edit slide shows with outlines and clip art to enhance presentations. Through hands-on practice, students will learn to combine text and graphic images to develop computerized slide shows, transparencies, and charts for group presentations in the legal environment only.

BL 67B
PRESENTATION 8 GRAPHICS
PRESENTATIONS FOR
THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Presentation 8 presentations software for the legal environment applications. Students will design, create, and edit slide shows with outlines and clip art to enhance presentations. Through hands-on practice, students will learn to combine text and graphic images to develop computerized slide shows, transparencies, and charts for group presentations in the legal environment only.

BL 67C
PERSUASION GRAPHICS
PRESENTATIONS FOR
THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Persuasion presentations software for the legal environment applications. Students will design, create, and edit slide shows with outlines and clip art to enhance presentations. Through hands-on practice, students will learn to combine text and graphic images to develop computerized slide shows, transparencies, and charts for group presentations in the legal environment only.

BL 67D
LOTUS GRAPHICS
PRESENTATIONS FOR
THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Lotus presentations software for the legal environment applications. Students will design, create, and edit slide shows with outlines and clip art to enhance presentations.

Through hands-on practice, students will learn to combine text and graphic images to develop computerized slide shows, transparencies, and charts for group presentations in the legal environment only.

BL 67E
ASTOUND GRAPHICS PRESENTATIONS FOR THE LAW OFFICE **1 UNIT**
Class hours: 3 lecture/.5 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the introductory aspects of Astound presentations software for the legal environment applications. Students will design, create, and edit slide shows with outlines and clip art to enhance presentations. Through hands-on practice, students will learn to combine text and graphic images to develop computerized slide shows, transparencies, and charts for group presentations in the legal environment only.

BL 100
INTRODUCTION TO CALIFORNIA CIVIL PROCEDURES **3 UNITS**
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: BL 56 or prior completion with a grade of Credit or "C" or higher.
This course is an introduction to civil procedures in litigation, including pre-suit claims and notices, jurisdiction, service of process, venue, statutes of limitations, parties, and joinder. Rules governing pleading in complaints and answers are covered, as well as demurrers and amended pleadings. Computerized legal forms are introduced. (Formerly BL 2)
Transfer Credit: CSU

BL 101
INTRODUCTION TO LAW **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to careers in the legal field including the role of the paralegal/legal assistant in the law office and the rules of ethics which govern lawyers and legal assistants. The course also covers substantive law in the areas of crimes and torts and describes the structure of the legal system in the federal and state settings. An introduction to the law library and legal resources is provided. (Formerly BL 1)
Transfer Credit: CSU

BL 102
ADVANCED CALIFORNIA CIVIL PROCEDURES **3 UNITS**
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 100 and BL 56 or equivalent with grades of Credit or "C" or higher.
This course continues the study of California Civil Procedures through the trial of a civil matter. Students will study the elements of discovery and develop a written discovery plan. Students will draft motions, judicial arbitration materials, trial briefs, and settlement proceedings. This is an optional course concentrating in advanced civil litigation and writing. (Formerly BL 3)
Transfer Credit: CSU

BL 103
LEGAL RESEARCH **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: BL 101 and BL 56 or equivalent with grades of Credit or "C" or higher.
This course is designed to introduce students to the basic techniques of legal research. Emphasis will be placed upon techniques of modern legal research which include the use of the law library and the specific techniques of how to use the primary and secondary sources of the law, legal terms, research aids; and introduction to legal writing. Primary emphasis will be on the legal research in the state of California. (Formerly BL 4.1)
Transfer Credit: CSU

BL 104
ADVANCED LEGAL RESEARCH **3 UNITS**
Class hours: 3 lecture
Prerequisite: BL 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: BL 56 or equivalent with a grade of Credit or "C" or higher.
This is an advanced legal research course for the paralegal student. This course will utilize legal research skills to develop sophisticated techniques in the use of legal research materials both at the state and federal levels. Computerized legal research (Westlaw) and traditional research methods will be utilized in preparing complex legal research projects. Analysis of the law through practical application of legal research will be developed. Memorandums, points and authorities, and comprehensive briefs will be required. (Formerly BL 4.2)
Transfer Credit: CSU

BL 105
INTRODUCTION TO FEDERAL AND CALIFORNIA EMPLOYMENT, LABOR, AND WORKERS' COMPENSATION LAW **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to Federal and California State employment, labor, and workers' compensation laws that affect the relationship between employers and employees in the work place. It provides an understanding for both employers and employees of their rights and obligations under these laws. (Formerly BL 14)
Transfer Credit: CSU

BL 106
BANKRUPTCY LAW **3 UNITS**
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Recommendation: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or "C" or higher.
This course is an introduction to the Federal Bankruptcy law, with emphasis on Chapter 7 Bankruptcies, and discussions and introduction to Chapter 11 and 13 proceedings. The student will complete an entire Chapter 7 Bankruptcy petition and other documents and motions involving a bankruptcy case under the Bankruptcy Code. Included will be creditors' claims and motions for relief of automatic stay. (Formerly BL 6)
Transfer Credit: CSU

BL 107
PROBATE PROCEDURES **3 UNITS**
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Recommendation: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or "C" or higher.
This course acquaints the student with the procedures and laws governing the probate of estates, both testate and intestate, and with procedures to transfer decedent's property without probate. Emphasis is placed upon correct completion of probate forms, notice requirements, and time limits. Procedures governing guardianship and conservatorship will also be covered. (Formerly BL 7)
Transfer Credit: CSU

BL 108
FAMILY LAW PROCEDURES 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Recommendation: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or "C" or higher.
This course acquaints the student with the laws governing family relations and procedures for dissolution of marriage actions. These are: Order to Show Cause Hearings, Trials, and Post Dissolution Proceedings. Preparation of marital termination agreements, types of judgments, adoptions and custody agreements are also presented. (Formerly BL 8)
Transfer Credit: CSU

BL 109
TORTS AND PERSONAL INJURY LAW AND PROCEDURES 3 UNITS
Class hours: 3 lecture/1 hr.lab.arr.
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a study of the major areas of torts and personal injury law including interviewing, claims investigation, claims adjustment techniques, and litigation procedures.
Transfer Credit: CSU

BL 112
ESTATE PLANNING FOR THE PARALEGAL 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Recommendation: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or "C" or higher.
This course is an introduction to estate administration. The student will learn the legal theories relating to wills, trusts, succession, taxation, and probate. Document preparation will be required in the areas of wills, trusts, and estate plans. (Formerly BL 10)
Transfer Credit: CSU

BL 113
FUNDAMENTALS OF ALTERNATE DISPUTE RESOLUTIONS 3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: BL 100 or equivalent with a grade of Credit or "C" or higher.
This course is the study of the techniques that resolve disputes to avoid or circumvent a trial in the California Court system. Students will draft the documents utilized in negotiations, mediation, neutral fact finding, contractual arbitration, judicial arbitration, and private judging. (Formerly BL 11)
Transfer Credit: CSU

BL 114
LAW ON THE INTERNET 1.5 UNITS
Class hours: 3 lecture +1 hr. lab arr. (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the students to the basic techniques of using the Internet for legal research and career information. Students learn how to access and use the Internet. Emphasis is placed on search techniques including refining search queries and performing legal and career searches utilizing several web search engines. Federal and multi-state research materials will be used. (Formerly BL 12)
Transfer Credit: CSU

BL 115
ELDER LAW 3 UNITS
Class hours: 3 lecture +1 lab. hr. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to the expanding legal area of elder law. Topics include ethical considerations, government benefits, health care decision making, Medicare and Medi-Cal benefits, home care versus residential care facilities, and protection from physical and/or fiduciary abuse. Upon completion of the course, students will be able to direct the elderly or their families to the appropriate government or private agency for assistance. (Formerly BL 13)
Transfer Credit: CSU

BL 116
CRIMINAL LAW 3 UNITS
Class hours: 3 lecture/1 hr.lab.arr.
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is an introduction to criminal law. Concepts covered include the legal system, elements of a crime, crimes against persons and property, defenses, searches and seizures, pre-trial and trial process, sentencing, corporate and white-collar crimes.
Transfer Credit: CSU

BL 120
LEGAL ETHICS 1.5 UNITS
Class hours: 1.5 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a study of the major areas of legal ethics and rules of professional responsibility as they affect paralegal/legal assistants. The course also focuses on legal ethics as they apply to attorneys. The course will cover the substantive rules regarding the regulation of lawyers/paralegals, the unauthorized practice of law, issues of confidentiality and conflicts of interest, as well as advertising and solicitation. (Formerly BL 20)
Transfer Credit: CSU

BL 171
BUSINESS PARALEGAL OCCUPATIONAL WORK EXPERIENCE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Paralegal Occupational Work Experience, in a declared business major. One unit of Business Paralegal Occupational Work Experience requires 60 non-paid hours or 75 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 3 units. (Formerly BL 71)
Transfer Credit: CSU

BL 172
BUSINESS PARALEGAL OCCUPATIONAL WORK EXPERIENCE 2 UNITS
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Paralegal Occupational Work Experience, in a declared business major. Two units of Business Paralegal Occupational Work Experience require 120 non-paid hours of work or 150 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to

related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 6 units. (Formerly BL 72)
Transfer Credit: CSU

BL 173/174
BUSINESS PARALEGAL OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: 1 hour/week coordination class.
Corequisite: Enrollment in 7 or more units, including Business Paralegal Occupational Work Experience, in a declared business major. Three units of Business Paralegal Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Paralegal Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.
First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site.
Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BL 73/74)
Transfer Credit: CSU

BL 220
LANDLORD AND TENANT LAW 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an introduction to landlord and tenant law including the nature of the tenancy relationship, rental agreements, rights and obligations during tenancy, premises liability and unlawful detainer litigation. Rules governing preparation of the unlawful detainer summons and complaint and answer are covered as well as obtaining default judgment and possession of property. (Formerly BL 22)
Transfer Credit: CSU

BL 230
CORPORATE LAW 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an introduction to corporate law. Concepts covered include substantive law considerations in choosing a business entity, pre-incorporation planning, forming a corporation, advantages and disadvantages of incorporating, issuance of shares and securities law considerations, corporate taxation, corporate structure, dividends and dissolution. (Formerly BL 23)
Transfer Credit: CSU

BL 240
TORT LAW 1.5 UNITS
Class hours: 1.5 lecture
Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
Corequisite: BL 1T.
Recommendation: None.
This course includes the study of major areas of tort law. It includes detailed exploration of negligence, strict product liability, selected intentional torts, and special instances of negligence law. Class discussion and reading will emphasize study of the elements of proof of the prime facie case for each tort and application of tort rules to factual situations. (Formerly BL 24)
Transfer Credit: CSU

BL 250
LEGAL INTERVIEWING 1.5 UNITS
Class hours: 1.5 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is the study of techniques for conducting client interviews, investigative strategies and tactics with emphasis on learning and avoiding evidence problems. Research evidence issues on various legal fields will be studied. (Formerly BL 25)
Transfer Credit: CSU

BL 260
IMMIGRATION LAW 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56
This is an introduction to immigration law including history and administration of U.S. Immigration law, citizenships, nationality, immigrant and non-immigrant categories, admission rules to U.S., removal procedures and refugees and asylum. Rules governing preparation of the various immigration forms will also be discussed and reviewed.
Transfer Credit: CSU

BUSINESS REAL ESTATE

(Business Division)

BUSR 1T (Not degree applicable)
BUSINESS REAL ESTATE COMPUTER TUTORIAL 0 UNIT
Class hours: 1 lab
Prerequisite: None.
Corequisite: BUSR 50.
Recommendation: None.
This course develops proficiency in computer applications in Business Real Estate. Students must attend one hour minimum per week and are limited to a maximum of three hours per week. (Formerly BUSR 13)

BUSR 50
INTRODUCTION TO REAL ESTATE SOFTWARE 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course covers hands-on training using form filling of real estate contracts, rent versus buy, inputting properties into the Board of Realtors' Multiple Listing Service, downloading available real estate offerings for presentation to buyers, amortization schedules, and cash flow projections of income producing properties (with emphasis on the manipulation of real property values with the changes of loan interest rates, overall capitalization rates, and gross rent multiplier). (Formerly BUSR 12)

BUSR 51
REAL ESTATE PRE-LICENSE 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
This course covers materials used by the State of California Department of Real Estate in preparing test questions for Real Estate License examinations. The major topics studied are real estate law, real estate practice, real estate principles, real estate finance, real estate appraisal, real estate taxations, and real estate economics. (Formerly BUSR 15)

BUSR 52
MORTGAGE LOAN BROKERING AND LENDING 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course introduces the student to the principles and operations of the loan brokering field. The emphasis is on the lending rules for residential property, disclosures, maximum fees and charges, agency relationships, advertising laws, HUD/RESPA calculations and the loan process. This course partially satisfies the requirements of the Real Estate Salesperson and California Real Estate Broker's licenses. (Formerly BUSR 21)

BUSR 53
ADVANCED REAL ESTATE APPRAISAL 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 131 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in real estate appraisal devoted to current techniques of estimating value. An income property will be chosen, visited, analyzed, and appraised. The creative development of a Narrative Appraisal Report will be taught, and its completion will be the goal of each student. All examples are or have been real life situations. Great emphasis is placed on preparing the student to be able to walk into an appraisal office and begin appraising. Capitalization, reciprocals, Inwood Methods, land and building residual techniques, and Hoskold Theories are covered. (Formerly BUSR 32)

BUSR 54
COMPUTERS IN REAL PROPERTY APPRAISAL PRACTICE 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSR 53 or BUSR 131 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None
Recommendation: None.
This course covers hands-on computer training for students involved in the appraisal certificate courses or for real estate licensees interested in the appraisal end of the real estate business. This course emphasizes appraisal techniques using form fill programs for Universal Residential Appraisal Report (URAR), Small Income Property Analysis and Report of Value, Large Income Property Analysis and Report of Value, Land Valuation Analysis and Report, Discounted Cash Flow Values (DCF's), and the manipulation and practical application and use of the six functions of $1. (Formerly BUSR 33)

BUSR 55
REAL ESTATE OFFICE ADMINISTRATION 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course is designed to acquaint the real estate licensee with skills necessary to manage a profitable and stable business. These skills include techniques in research; office organization; managerial decision making; establishing controls systems and policies; recruiting, selecting, and training of personnel; product marketing and other skills related to financing, expansion, and growth. (This course may be taken as a broker's license requirement.) (Formerly BUSR 41)

BUSR 56
PRACTICES OF ESCROW 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 151 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the practices and procedures followed in processing escrows, with emphasis on real estate, familiarization and drawing of documents, title company practices and reports, taking an escrow, prorations and closing statements. (Formerly BUSR 52)

BUSR 101
REAL ESTATE PRINCIPLES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a beginning course in real estate, which introduces the student to real estate fundamentals and principles. Major topics covered are: history of real estate in California, contracts, agency, introduction to financing, deeds, liens and encumbrances, escrow and title insurance, land descriptions, and real estate math. (Formerly BUSR 11)
Transfer Credit: CSU

BUSR 120
REAL ESTATE FINANCE 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course is designed to be of assistance to real estate brokers, salesmen, college students majoring in real estate, and others who may have a special interest in real estate financing. Actual case illustrations demonstrating lending policies, problems, and risks involved in financing transactions in residential apartment, commercial, and special purpose properties will be used. (Required by law for applicants for Broker's License.) (Formerly BUSR 20)
Transfer Credit: CSU

BUSR 125
LEGAL ASPECTS OF REAL ESTATE 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or BA 111 or equivalent with a grade of Credit or "C" or higher.
This course is designed to be of material assistance to real estate licensees, college students majoring in real estate, and others interested in real estate. This is a practical, applied study of California real estate law intended to be of help in avoiding legal difficulties which can arise with real estate transactions. (Required by law for applicants for Broker's License.) (Formerly BUSR 25)
Transfer Credit: CSU

BUSR 130
REAL ESTATE PRACTICES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to acquaint the students with everyday real estate practice; to familiarize them with forms used and with on-the-job problems; to keep them abreast of change in conditions in the real estate business, notably the money market, land utilization, and zoning; and to inform them of modern selling practices and techniques. (Required by law for applicants for Broker's License.) (Formerly BUSR 30)
Transfer Credit: CSU

BUSR 131
INTRODUCTION TO REAL ESTATE APPRAISAL 4 UNITS
Class hours: 4 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the field of real property appraisal. It includes the hands-on evaluation of a single family residence and a multi-family income unit. This course includes preparation of and finalization of the Uniform

Residential Appraisal Report. Students will learn to use the Uniform Residential Appraisal Report (URAR) with addendums for the single family residence report and will use the Small Residential Income Report for multiple units. This class includes the mandatory 15 hours of Uniform Standards of Professional Appraisal Practice (USPAP). The completion of 15 hours of study of Uniform Standards of professional Appraisal Practices (USPAP) is required for every classification of State Appraisal Licensing or Certification. This course will qualify for 69 hours of basic Appraisal Education toward the 90 hours necessary for Trainee License, the 120 hours required for Licensed or Certified Residential classification, and the 180 hours required for the Certified General classification. (Formerly BUSR 31)
Transfer Credit: CSU

BUSR 140
REAL ESTATE PROPERTY MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
The course illustrates how skilled management practice can assure the production of maximum financial yield to investment real estate. The students gain an overview of the many different types of properties in which they might become involved. The course considers the specific duties of management, including the establishment of rental schedule, merchandising available space, collecting rent, creating and supervising maintenance schedules and repairs, supervising all purchasing, developing a tenant relationship policy, and maintaining proper accounting records. In addition, the course includes Trust Fund Handling and Fair Housing, both required three-hour courses for real estate agent licenses. The course is additionally approved for 45 hours of continuing education for real estate licenses, 51 hours of continuing education for certified and licensed Appraisers or 54 hours of basic education for real estate appraisers. Course may be taken as a broker's license requirement. (Formerly BUSR 40)
Transfer Credit: CSU

BUSR 151
FUNDAMENTALS OF ESCROW **3 UNITS**
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This is a basic course covering the principles and fundamentals of escrow procedure, with emphasis on the duties and responsibilities of escrow personnel. Attention is given to the value of an escrow as a means of facilitating the transfer of property and for protection of the interests of the principals. This is a background course for real estate students and a prerequisite for more advanced courses in escrow. Course may be taken as a broker's license requirement. (Formerly BUSR 51)
Transfer Credit: CSU

BUSR 157
REAL ESTATE INVESTMENTS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to acquaint the students with real estate investments. Content will include commonly used forms, solving on-the-job problems, cash flow analysis including calculation of cash-on-cash return, net present value and internal rate of return, analysis of the client's needs, and modern practices and techniques used in industry today.
Transfer Credit: CSU

BUSR 160
REAL ESTATE ECONOMICS **3 UNITS**
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course covers principles and problems in urban development: basic methods of statistical analysis and interpretation, controlling land use, patterns of land use for commercial and industrial facilities, economic aspects of real estate investment theory, economic utilization and land resources, public housing, urban renewal and rehabilitation, and impact of environment controls. (Required for California Real Estate Broker's License.) (Formerly BUSR 60)
Transfer Credit: CSU

BUSR 172
BUSINESS REAL ESTATE OCCUPATIONAL WORK EXPERIENCE / CAREER INTERNSHIP **2 UNITS**
Class hours: 1 hr./wk coordination class
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: Enrollment in 7 or more units, including Business Real Estate Occupational Work Experience/Career Internship, in a declared business major. Two units of Business Real Estate Occupational Work Experience/Career Internship require 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to exacting experiences in the workplace. The aim of the course is to assist students in becoming more productive workers. In the process of doing so, it creates greater communication with increased understanding between the broker/sponsors, student/trainees, and the college. First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a
program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second-, third-, and fourth-semester students must meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 6 units. (Formerly BUSR 72)
Transfer Credit: CSU

BUSR 173 / 174
BUSINESS REAL ESTATE-OCCUPATIONAL WORK EXPERIENCE / CAREER INTERNSHIP **3-4 UNITS**
Class hours: 1 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: Enrollment in 7 or more units, including Business Real Estate Occupational Work Experience, in a declared business major. Three units of Business Real Estate Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Real Estate Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to exacting experiences in the workplace. The aim of the course is to assist students in becoming more productive workers. In the process of doing so, it creates greater communication with increased understanding between the broker/sponsors, student/trainees and the college.
First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site.
Second, third, and fourth semester students must meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BUSR 73/74)
Transfer Credit: CSU

BUSR 174A
BUSINESS REAL ESTATE OCCUPATIONAL WORK EXPERIENCE ALTERNATE PLAN 4 UNITS
Class hours: 1 hour/week coordination class
Prerequisite: Completion of 12 units in Business Administration, Business Real Estate or Paralegal or equivalent.
Corequisite: None.
Recommendation: None.
The Business Real Estate Occupational Work Experience Alternate Plan is supervised employment of students designed to offer students opportunities to attend college full-time one semester and work full-time the following semester. Job experience must relate directly to the student's educational goals. Up to eight (8) units may be earned in one semester. Occupational work internship is supervised employment of students designed to extend their classroom-based occupational learning at an on-the-job learning station in fields directly related to their educational or occupational goals. This course may be taken for a maximum of 16 units.
Transfer Credit: CSU

CHEMISTRY

(Science / Engineering / Math Division)

CHEM 9T (Not degree applicable)
CHEMISTRY-TUTORIAL 0 UNIT
Class hours: 2 lab
Corequisite: Enrollment in any chemistry course.
This course is designed to facilitate the learning of chemical knowledge, skills, and concepts through individualized and mediated instruction. It is open to any student enrolled in any chemistry course. (Formerly CHEM 99)

CHEM 100 (CAN CHEM 6)
INTRODUCTORY CHEMISTRY 4 UNITS
Class hours: 3 lecture/2 lab/1 quiz
Prerequisite: MATH 40 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of Math Placement Process.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 100.
This course is an introduction to the basic principles of inorganic and organic chemistry and biochemistry with their application to problems encountered in our everyday lives. The course includes the metric system, atomic structure, bonding, solutions, chemical reactions, hydrocarbons, functional groups, carbohydrates, lipids, and proteins. It is designed to give a general introduction to fundamental concepts and to prepare students for majors in nursing, dental hygiene, physician assistant, physical therapy assistant, liberal arts, and technical fields. (Not open to those with credit in more advanced courses.) (Formerly CHEM 10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: CHEM 110 and CHEM 100 combined: maximum credit, one course. No credit for CHEM 110 or CHEM 100 if taken after CHEM 111.*

CHEM 105
CHEMISTRY FOR ELEMENTARY SCHOOL TEACHERS 1.5 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: MATH 105 or MATH 110A or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
This course is an introduction to the basic principles of chemistry with application to problems encountered in everyday lives. The course includes the metric system, atomic structure, bonding, solutions, chemical reactions, simple and complex molecules, everyday organic and biochemical compounds. It is designed to give a general introduction to fundamental concepts and to prepare students for teaching at the elementary level.
Transfer Credit: CSU

CHEM 110
ELEMENTARY CHEMISTRY 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or "C" or higher, or satisfactory completion of the Math Placement Process.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 110.
This introductory inorganic chemistry course emphasizes basic principles, formulas, equations, and chemical math problems. It is designed for students with little or no previous chemistry and prepares students for CHEM 111, General Chemistry. (Formerly CHEM 2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: CHEM 110 and CHEM 100 combined: maximum credit, one course. No credit for CHEM 110 or CHEM 100 if taken after CHEM 111.*

CHEM 111 (CAN CHEM SEQ A)(CAN CHEM 2)
GENERAL CHEMISTRY 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 110 or equivalent with a grade of Credit or "C" or higher and MATH 80 (or MATH 80B) or equivalent with grades of Credit or "C" or higher (satisfactory completion of the Math Placement Process may be substituted for MATH 80).
Recommendation: It is strongly recommended that all of the preceding prerequisites be completed within four years prior to the date of enrollment in CHEM 111.
This course is designed for science majors. It includes stoichiometry; properties and changes of state for gases, liquids and solids; solutions; colloids; equilibria of gases, weak acids and bases, and slightly soluble compounds. (Formerly CHEM 1.1)
Transfer Credit: CSU; UC

CHEM 112 (CAN CHEM SEQ A)(CAN CHEM 4)
GENERAL CHEMISTRY 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or "C" or higher or equivalent.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 112.
This course is designed for science majors and is a continuation of CHEM 111. It includes oxidation-reduction; electrochemistry; modern atomic structure and bonding; molecular geometry; coordination chemistry; nuclear chemistry; thermodynamics; kinetics and organic chemistry. The laboratory includes some qualitative analysis. (Formerly CHEM 1.2)
Transfer Credit: CSU; UC

CHEM 205 (CAN CHEM 12)
QUANTITATIVE ANALYSIS CHEMISTRY 4 UNITS
Class hours: 2 lecture/2 quiz/4 lab
Prerequisite: CHEM 112 or equivalent with a grade of Credit or "C" or higher.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 205.
This course is an introduction to theories and techniques of gravimetric, volumetric, colorimetric, and electro-analytic methods of analysis. The course is designed for majors in chemistry, engineering, medicine, dentistry, pharmacy, and laboratory technology. (Formerly CHEM 5)
Transfer Credit: CSU; UC

CHEM 211-212
ORGANIC CHEMISTRY 5-5 UNITS
Class hours: 3-3 lecture/2-2 quiz/4-4 lab (211-F; 212-S)
Prerequisite: CHEM 112 or equivalent with a grade of Credit or "C" or higher.
Recommendation: It is strongly recommended that the preceding prerequisites be completed within four years prior to the date

of enrollment in CHEM 211-212.
A year course in the properties and reactions of aliphatic and aromatic organic compounds with emphasis being placed on reaction mechanisms, fundamental principles and modern instrumental methods. The Laboratory will stress synthesis, techniques, and spectroscopic and qualitative analysis. (Formerly CHEM 7.1-7.2)
Transfer Credit: CSU; UC

CHEM 250L
SPECIAL TOPICS IN CHEMISTRY 1 UNIT
Class hours: 3 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or "C" or higher.
This course is primarily for chemistry or related science majors. Individual research problems are explored using materials, equipment and techniques not available to larger classes. This course may be taken for a maximum of 2 units. (Formerly CHEM 30.16)
Transfer Credit: CSU; UC

CHILD DEVELOPMENT

(Health Occupations Division)

CD 50
ARTS AND CRAFTS FOR SCHOOL-AGE CHILDREN 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: None.
This course will present the principles and application of arts and crafts activities for school-age children. A variety of media and techniques will be explored and applied to projects that are meaningful to children. Exposure to art by master artists is used to facilitate the learning and appreciation of different forms and styles of art. This course meets the Department of Social Service Classification Indicator DS 5. (Formerly CD 21)

CD 110
CHILD DEVELOPMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will familiarize the student with principles of child development from conception through adolescence including behavior patterns and group interaction of children. The student will also learn the effect of family, peers, and society upon children at different ages and cultures. This course meets the Department of Social Service Classification Indicator DS 1. (Formerly CD 10)
Transfer Credit: CSU; UC

CD 115
PARENT SCHOOL PARTNERSHIPS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CD 110 and CDEC 113 or equivalent with grades of Credit or "C" or higher.
This course is designed to introduce students to various current family, school, and community partnership models and approaches. Students will acquire knowledge and skills toward fostering two-way partnerships with families and communities of diverse backgrounds from primary through high school. Historical, legal, social, and political perspectives regarding educational access and equity for diverse student populations found in contemporary classrooms will be addressed. Teacher candidates will also broaden their knowledge and understanding of ethnically and linguistically diverse families and communities to be more effective in building relationships with them.
Transfer Credit: CSU

CD 124
THE CHILD IN A PLURALISTIC SOCIETY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers the principles of implementing a bias-free, anti-bias, and multicultural curriculum for young children. Race, ethnicity, class, gender, exceptionality, and age will be discussed along with the social and cultural conditions that influence a young child's education. Emphasis will be placed on helping the child understand one's own culture as well as the culture of others. (Formerly CD 24)
Transfer Credit: CSU

CD 139
OBSERVATION, ASSESSMENT, AND POSITIVE GUIDANCE OF CHILDHOOD BEHAVIOR 3 UNITS
Class hours: 3 lecture
Prerequisite; None.
Corequisite: None.
Recommendation: CDEC 111 and CD 110 or equivalent with grades of Credit or "C" or higher.
This course covers the theories of behavior, guidance techniques, and effective communication, observational, assessment, and documentation of young and school-age children. The emphasis will be on developing an understanding of children's behavior and encouraging positive self-esteem while helping the child work toward self-control. Content will cover understanding observation as an integral part of appropriate instruction and intervention. This course is not open to students who have received credit for CD 137 and CD 138. (Formerly CD 137 and CD 138)
Transfer Credit: CSU

CHILD DEVELOPMENT / EARLY CHILDHOOD

(Health Occupations Division)

CDEC 61
NUTRITION, HEALTH AND SAFETY IN CHILDREN'S PROGRAMS 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course offers an opportunity to study the attitudes and habits essential for the general physical health, mental health, and safety of teacher, parent, and child. Topics covered are nutrition, school menus, common childhood diseases, California State safety regulations, and other special health problems of Early Childhood Education Programs. Instruction includes health-protection resources provided by home, school, and community. This course meets the Department of Social Services Classification Indicator DS 7. (Formerly CDEC 25)

CDEC 62
CREATIVITY AND THE PRE-SCHOOL CHILD 2 UNITS
Class hours: 2 lecture, 1 lab
Prerequisite: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course explores expressive art activities for the pre-school child presented experientially and through lecture, discussion, and practicum. The major focus will be on facilitating personal self-expression through creative means, with the emphasis on the process as opposed to the product of the child's experiences. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 30)

CDEC 63
EARLY CHILDHOOD EXPERIENCES IN LANGUAGE ARTS AND SOCIAL SCIENCES 2 UNITS
Class hours: 2 lecture, 1 lab
Prerequisite: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course will acquaint the student with language, literature, social sciences, and dramatic activities for pre-kindergarten children. Instruction will cover pre-reading,

pre-writing, and the development of listening skills. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 32)

CDEC 64
EARLY CHILDHOOD EDUCATION PRACTICUM 3 UNITS
Class hours: 2 lecture, 3 lab
Prerequisite: CDEC 111 and CDEC 112 or equivalent with grades of Credit or "C" or higher.
This course is designed to provide opportunities for the student to observe children in a model child care program. It includes instruction and application of techniques of working with young children, parents, and staff. Weekly observations of curriculum applications are evaluated. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 35)
Transfer Credit: CSU

CDEC 65
MUSIC AND MOVEMENT FOR YOUNG CHILDREN 2 UNITS
Class hours: 2 lecture, 1 lab
Prerequisite: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course focuses on principles and methods of providing creative musical and movement experiences for young children. The student will also have the opportunity to learn how to use simple musical instruments suitable for use in Early Childhood Education programs. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 40)

CDEC 66
ADMINISTRATION AND SUPERVISION OF EARLY CHILDHOOD EDUCATION PROGRAMS 3 UNITS
Class hours: 3 lecture
Prerequisite: CD 110, CDEC 111, CDEC 112, and CDEC 113 or equivalent with grades of Credit or "C" or higher.
This course will acquaint the student with the role of the director/supervisor in a child care program. Content includes laws governing child care in California, admission procedures, recordkeeping, budget, finance, the physical plant, and staffing concerns. This course meets the Department of Social Services Classification Indicator DS 6. (Formerly CDEC 50)

CDEC 67
ADVANCED ADMINISTRATION AND SUPERVISION OF EARLY CHILDHOOD EDUCATION PROGRAMS 3 UNITS
Class hours: 3 lecture
Prerequisite: CDEC 66 or equivalent with a grade of Credit or "C" or higher or equivalent.
Corequisite: None.
Recommendation: Teaching experience
This course offers advanced information for administrators or directors in the child care professions. The student will explore legislative updates, current issues, families at risk, professionalism, Child Development Associates, National Association for the Education of Young Children Accreditation, and marketing strategies. This course meets the Department of Social Services Classification Indicator DS 6. (Formerly CDEC 51)

CDEC 111
PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD EDUCATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a survey of the field of Early Childhood Education emphasizing history and recent trends. It includes an introduction to different types of programs and the vocational opportunities available. Field trips to schools for young children will be featured. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 10)
Transfer Credit: CSU

CDEC 112
EARLY CHILDHOOD EDUCATION CURRICULUM 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This introductory course presents current concepts in childhood curriculum development and implementation. Emphasis is placed on developmentally appropriate curricular practices for an effective program for young children. The student will construct curriculum and assess its appropriateness in meeting diverse needs, levels of functioning and interest of children. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 20)
Transfer Credit: CSU

CDEC 113
THE CHILD, FAMILY, AND COMMUNITY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a course for anyone who deals with children: parents, teachers, and professionals in human services. Topics discussed are the influences on children's growth by the family, the school, day-care facilities, the peer group, the mass media, and the community. Also examined are how these forces interact to socialize and produce the child's values, morals, attitudes, behavior and self-esteem. This course meets the Department of Social Service Classification Indicator DS 2. (Formerly CDEC 21)
Transfer Credit: CSU

CDEC 133
EARLY CHILDHOOD EXPERIENCES IN MATHEMATICS AND SCIENCE 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course will acquaint the student with developmentally appropriate mathematics and science activities for pre-kindergarten children. Activities for this age group in counting, sets, earth and life sciences, classification of objects, and cooking experiences will be presented. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 33)
Transfer Credit: CSU

CDEC 134A
HEADS UP! READING-EARLY STEPS TO READING SUCCESS COMPONENT A 1 UNIT
Class hours; 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course will acquaint the students with research based principles and practices for providing children birth through age five with a strong foundation in early reading and writing within a developmentally appropriate approach. Component A emphasizes language acquisition and the developmental continuum for listening, speaking, reading and writing. Students will be introduced to the concepts of goal setting for literacy. Completion of any two of three components of this course sequence meets the Department of Social Services Classification DS 3 Indicator. Any two of the three components of this course sequence in combination are equivalent to CDEC 63 – Early Childhood Experiences in Language Arts and Social Studies.
Transfer Credit: CSU

CDEC 134B
HEADS UP! READING-
EARLY STEPS TO READING
SUCCESS COMPONENT B **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course will acquaint the students with research based principles and practices for providing children birth through age five with a strong foundation in early reading and writing within a developmentally appropriate approach. Component B emphasizes language development and how children's books can add vocabulary and comprehension skills. Dramatic play situations will be introduced as well as field trips to increase language opportunities. Use of pre-writing and writing skills will also be included. Completion of any two of three components of this course sequence meets the Department of Social Services Classification DS 3 Indicator. Any two of the three components of this course sequence in combination are equivalent to CDEC 63 – Early Childhood Experiences in Language Arts and Social Studies.
Transfer Credit: CSU

CDEC 134C
HEADS UP! READING –
EARLY STEPS TO READING
SUCCESS COMPONENT C **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course will acquaint the students with research based principles and practices for providing children birth through age five with a strong foundation in early reading and writing within a developmentally appropriate approach. Component C emphasizes the importance of the home school connection. Diversity issues involved in both receptive and expressive language are introduced. Students will develop and use materials that meet the children's reading needs in a variety of ways. Completion of any two of three components of this course sequence meets the Department of Social Services Classification DS 3 Indicator. Any two of the three components of this course sequence in combination are equivalent to CDEC 63 – Early Childhood Experiences in Language Arts and Social Studies.
Transfer Credit: CSU

CDEC 173/174
EARLY CHILDHOOD
EDUCATION OCCUPATIONAL
WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Early Childhood Education work experience 173 or 20 hours of employment per week for Early Childhood Education work experience 174. The employment must be in a job related to the student's educational goal.
Prerequisite: None.
Corequisite: Enrollment in Child Development vocational program of 7 or more units in major including Occupational Work Experience.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 73/74)
Transfer Credit: CSU

CDEC 230
ADULT SUPERVISION IN
CHILD CARE PROGRAMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: CD 110, CDEC 111, CDEC 112, and CDEC 113 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a study of the methods and principles of supervising student teachers, assistant teachers, parents and volunteers in early childhood education/child development classrooms. Emphasis is on the role of the classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents, and other staff. This course meets the requirement for a course in adult supervision for the California Child Development Permit. (Formerly CDEC 52)
Transfer Credit: CSU

CHILD DEVELOPMENT / FAMILY CHILD CARE

(Health Occupations Division)

CDFC 10 (Not degree applicable)
FAMILY CHILD CARE PROVIDERS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed for a person interested in or already managing a child care business in the home. Licensing procedures, appropriate standards, recruitment of children, cultural issues, provision and maintenance of a safe and stimulating environment, nutrition programs, community resources, record keeping and other business aspects are covered. Emphasis is on nurturing children, working cooperatively with parents, and the importance of a good self-concept for the child and the family child care provider.

CHILD DEVELOPMENT / INFANT TODDLER

(Health Occupations Division)

CDIT 50
INFANT/TODDLER
CARE GIVING **3 UNITS**
Class hours: 3 lecture
Prerequisite: CD 110 or equivalent with a grade of Credit or "C" or higher.
The principles of a sound infant/toddler care program are explored. The course content includes roles of the director, teacher and aide, laws and regulations, and considerations relating to learning objectives, developmental needs and other key factors. This course meets the Department of Social Service Classification Indicator DS 4. (Formerly CDIT 10)

CDIT 51
INFANT AND TODDLER
DEVELOPMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CD 110 or equivalent with a grade of Credit or "C" or higher.
This course is an in-depth investigation of the social, emotional, physical, and cognitive development patterns of infants and toddlers, both theoretically and through direct observation. This course meets the Department of Social Service Classification Indicator DS4.

CDIT 52
INFANT AND TODDLER PROGRAMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: CDIT 51 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: CD 110 or equivalent with a grade of Credit or "C" or higher.
This course explores program models for children from birth to three years of age, addressing program goals, philosophies, curriculum, building relationships with infants, toddlers and families, safety routines, physical space and equipment, as well as infant and family needs especially in a group setting. This course meets the Department of Social Service Classification Indicator DS 4.

CHILD DEVELOPMENT / SCHOOL AGE

(Health Occupations)

CDSA 152
SCHOOL-AGE CHILD CARE SUPERVISION AND ADMINISTRATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: CD 110 or equivalent with a grade of Credit or "C" or higher.
This course presents the principles of administration and supervision of school-age child care programs. Emphasized are the role of the director, teacher, and aide; laws and regulations; and a study of objectives, curricula, developmental needs, and other key factors for operating such programs. The unique features of before-and-after-school care as opposed to the regular school day will be stressed. This course meets the Department of Social Service Classification Indicator DS 6. (Formerly CDSA 10)
Transfer Credit: CSU

CDSA 155
SCHOOL-AGE CHILD CARE ACTIVITIES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course presents activities for the 6-12 year-old child in an extended day care setting. Focus is on cognitive, physical, psychosocial, and creative aspects of development, as well as positive approaches to guidance. This course meets the Department of Social Service Classification Indicator DS 5. (Formerly CDSA 20)
Transfer Credit: CSU

CDSA 259
SCHOOL-AGE CHILD CARE PRACTICUM **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: CDSA 155 or equivalent with a grade of Credit or "C" or higher.
This course provides practical experiences in an extended day care program. It includes observation of behaviors exhibited by the school-age child and the opportunity to assist the teacher in the Center. Basic instruction includes guidance, room environment, tutoring, record keeping and other extended day care responsibilities. This course meets the Department of Social Service Classification Indicator DS 5. (Formerly CDSA 35)
Transfer Credit: CSU

CHILD DEVELOPMENT / PARENT EDUCATION

(Health Occupations Division)

CDPE 10 (Not degree applicable)
INTRODUCTION TO FAMILY DEVELOPMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course offers the student a comprehensive introduction to the process of parenting from conception through adolescence. It offers an appreciation of challenges and pleasures of parenting as well as practical solutions to common problems.

CHILD DEVELOPMENT / SPECIAL EDUCATION

(Health Occupations Division)

CDSE 50
SURVEY OF SPECIAL EDUCATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of the field of special education emphasizing the role of the Special Education Assistant in the training of the exceptional individual. It will include an introduction to the types of handicapped children and adults, the function of the assistant and the vocational opportunities available. Field trips will be an important part of the instructional program. (Formerly CDSE 10)

CDSE 52
SPECIAL EDUCATION INCLUSION IN EARLY CHILDHOOD PROGRAMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a comprehensive overview of early childhood inclusion as it applies to children from birth to age eight. It offers a broad study of early childhood special education as it relates to inclusion. The course will cover federal and state laws and regulations, terminology and definitions, appropriate practices and interventions, behavioral issues, family support and guidance and "whole child/whole family" approach to inclusion success.

CDSE 73 / 74
SPECIAL EDUCATION ASSISTANT OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Special Education Assistant work experience 73 or 20 hours of employment per week for Special Education Assistant work experience 74. The employment must be in a job related to the student's educational goal.
Prerequisite: None.
Corequisite: Enrollment in the Special Education Assistant vocational program with 7 or more units including occupational work experience.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. These courses may be repeated for a maximum of 8 units based on the number of hours on the job.

COMPUTER AND INFORMATION SCIENCES

(Science, Engineering and Math Division)

CIS 2L (Not degree applicable)
AS / 400 TUTORIAL LAB **0 UNIT**
Class hours: 2 hrs. arr. (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Students must attend two hours minimum per

week and are limited to a maximum of six hours per week multiplied by the number of AS/400 courses in which the students are enrolled. (Formerly BCIS 23.3)

CIS 3L (Not degree applicable)
COMPUTER UTILIZATION **0 UNIT**
Class hours: 1 hour per week as arranged.
Students must attend one hour minimum per week and are limited to a maximum of three hours per week multiplied by the number of data processing courses in which the students are enrolled that require this lab. (Formerly BCIS 77)

CIS 5C (Not degree applicable)
BUSINESS COMPUTER INFORMATION SYSTEMS
DATABASE MODULE **0.5 UNITS**
Class hours: 1.5 lecture/2.5 lab (4 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Fluency in Spanish is strongly recommended.
This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and Powerpoint). Students learn basic aspects of microcomputer software applications using a modular approach. The module will include topics in file management, creation/maintenance of backups, formatting disks, and the basic concepts and use of a database application. This course may be taken for a maximum of 1.0 unit. (Not open to students with credit in CIS 102). (Formerly BCIS 15.3)

CIS 50
BASIC COMPUTER LITERACY **0.5 UNIT**
Class hours: 4 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the student with a basic overview of the components of a computer and application software. This course is for the student who is not familiar with the use of the computer and its applications. Topics will include a basic introduction to computer systems hardware, Windows, Word, Excel, and PowerPoint. The class stresses hands-on use of the computer with its applications. (Formerly BCIS 69.30/BCIS 1)

CIS 52
DATA PROCESSING MATHEMATICS **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This course will provide students with an understanding of basic mathematical concepts, as used in computer applications. Students will solve problems in fundamental algebra using linear and nonlinear functions, study inventory statistics and probability and their relationships to each other, and learn to set up and solve formula relationships, including direct and indirect proportions. Other topics will include number systems, logic, mathematics of elementary finance, table structures, Boolean algebra, and basic geometric concepts, including some coordinate geometry. (Formerly BCIS 30)

CIS 54A
EXCEL FOR WINDOWS - PART 1 **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 105 or equivalent with a grade of Credit or "C" or higher.
This course provides an introduction to the functions of Microsoft Excel for Windows spreadsheet. The fundamentals of building worksheets include creating worksheets, cell formatting, functions, formulas, Wizards, and the creation of basic charts. Techniques to deal with large worksheets are covered. Templates, macros and database functions are previewed. Hands-on exercises are used to reinforce the functions of Excel. (Formerly BCIS 11.1)

CIS 54B
EXCEL FOR WINDOWS - PART 2 **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 54A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course continues to explore the functions of the Microsoft Excel for Windows spreadsheet. The fundamentals of building worksheets will include creating worksheets, formatting, functions, formulas, macros, data tables, analysis tools, and the creation of charts. Techniques to deal with multiple worksheets and large worksheets will be covered. The database functions of Excel will include: sorting, filtering, queries, macros, and record retrieval. Hands-on exercises will be used to reinforce the functions of Excel. (Formerly BCIS 11.2)

CIS 56
MICRO DISK OPERATING SYSTEMS **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Recommendation: CIS 101 or CIS 102 or equivalent with a grade of Credit of "C" or higher.
This course is designed to acquaint students with the functions of the MS-DOS operating system. Students will learn the basics of the MS-DOS operating system required to prepare them for the MS-DOS portion of the MS-DOS/Windows exam for the A+ and Network+ certifications. (Formerly BCIS 69.6/BCIS 20)

CIS 57
ADVANCED TOPICS IN MICROCOMPUTER DISK OPERATING SYSTEMS **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 56 or equivalent with a grade of Credit or "C" or higher.
This course is designed to extend the student's knowledge and skills in dealing with advanced aspects of disk operating systems in the business environment for IBM-type microcomputer hardware platforms. Coursework will include designing custom working environments using the tools included with the operating systems as well as those provided by outside vendors. This course will also involve creating and using small customized utilities written with DEBUG and assembler. (Formerly BCIS 21)

CIS 58
WINDOWS FOR COMPTIAA+ CERTIFICATION EXAMS **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Student should be familiar with any Windows environment, version 3.0 or higher. The student preparing for this exam should also enroll in CIS 56.
This course is designed to help the student prepare for the Windows portion of the DOS/Windows certification test for the CompTIAA+ certification exam. The A+ certification consists of two exams: (1) a basic knowledge of PC hardware; (2) familiarity with installing and maintaining DOS, Windows 3.x, and Windows 95/98. The hardware portion is covered in EL 54.

CIS 70A
NETWORKING FUNDAMENTALS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a survey course about the computer networking and telecommunications industry. Topics covered include the seven layers of the Open Systems Interconnection Model (OSI), network architectures, internetworking, and telecommunications. (Formerly NTO 5.1)

CIS 70B
LOCAL AREA NETWORKS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 70A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course introduces the concepts, technologies, components and protocols inherent in today's local area networking environments. Students will learn how computers are connected together to form peer-to-peer and server-based networks, and discover the functionality and uses of a router, bridge, switch, hub and repeater. The three most commonly used network operating systems for LANs today, Microsoft Windows-based operating system, Unix, and Novell NetWare, are also covered in this course. In addition, it explains the latest LAN technologies such as VLANs, fast Ethernet, and other new technical developments in the LAN area. (Formerly NTO 5.2)

CIS 70D
INTRODUCTION TO TCP/IP **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 70C or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course offers an overview of the most widely used networking architecture in the networking industry – Transport Control Protocol/Internet Protocol (TCP/IP). Students will learn the underlying applications, components and protocols of TCP/IP and its necessary link to the Internet, and how to identify TCP/IP layers, components and functions. Navigation tools, TCP/IP applications, structure of TCP/IP and IP routing, TCP/IP addressing and subnetting, how TCP/IP addresses are discovered and used in computer networks, IP routing and router usage, and troubleshooting a TCP/IP network.

CIS 70E
ROUTER CONFIGURATIONS AND PROTOCOL **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 70A or equivalent with a grade of Credit or "C" or higher or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is the second course of four on Cisco networking technologies. It covers the OSI reference model, routers and their use, router components, router start-up and set-up, configurations, and the Cisco Internetworking Operating Systems (IOS). (Formerly NTO 5.6)

CIS 70F
ADVANCED SWITCHING AND ROUTING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 70E or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is the third in a series of courses that prepares students for certification as a Cisco Certified Network Associate (CCNA). This class covers LAN (Local Area Network) Switching, VLANs (Virtual Local Area Networks), LAN design, IGRP (Interior Gateway Routing Protocol), Access lists, and Novell IPX. (Formerly NTO 5.7)

CIS 70G
WIDE AREA NETWORKS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 70E or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is the fourth in a series of courses that prepare students for certification as a Cisco Certified Network Associate (CCNA). It covers Wide Area Network (WAN) design, Point-to-Point Protocol (PPP), Integrated Services Digital Network (ISDN), Frame Relay, and CCNA exam review. (Formerly NTO 5.3/CIS 70C)

CIS 70H
NETWORKING ANALYSIS AND DESIGN **2.5 UNITS**
Class hours: 5 lecture (9 weeks)
Prerequisite: CIS 70F or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course focuses on the design process for computer networking. Concepts and skills developed in previous courses in this series form the foundation for approaching the task of defining network requirements, writing specifications, designing, and implementing a computer network. (Formerly NTO 5.8)

CIS 72
TCP/IP ON MICROSOFT WINDOWS NT **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 70A, CIS 212 or CIS 212A and or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides students with the knowledge and skills required to set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on Microsoft Windows NT operating system. It is intended for those who support or administer Microsoft Windows NT Server and Windows NT Workstation in a TCP/IP environment. This course is compliant with current industry certification. (Formerly BCIS 82.1)

CIS 75
SQL ADMINISTRATION AND IMPLEMENTATION **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 212 or equivalent with a grade of Credit or "C" or higher is strongly recommended.
This course provides students with the knowledge and skills required to install, configure, administer, trouble-shoot, and implement the Microsoft SQL server database management system. (Formerly BCIS 68)

CIS 80
PROGRAMMING IN ACCESS **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 155 and CIS 171 or equivalent with grades of Credit or "C" or higher are strongly recommended.
This course provides students with the knowledge and skills required to program Access applications using Visual Basic for Application. The students will design and create real-world business applications. (Formerly BCIS 25)

CIS 82
VISUAL BASIC SCRIPTING **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 171 and CIS 205 or equivalent with grades of Credit or "C" or

higher are strongly recommended.
This course provides students with the knowledge and skills required to create interactive web pages using Microsoft Internet technologies. The students will learn how to program in VBScript. (Formerly BCIS 48)

CIS 84
MICROSOFT INTERNET INFORMATION SERVER **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 212 or CIS 212B and CIS 72 or equivalent with grades of Credit or "C" or higher.
This course covers the support of the various features of Microsoft Internet Information Server (IIS). Students will learn how to install, configure, and implement the key components that comprise IIS. They will also have hands-on experience setting up a Web site. The course is intended for those who support or administer Microsoft Internet Information Server. The course uses a combination of lectures, demonstrations, discussions, online assignments, and hand-on labs. This course is compliant with current industry certification. (Formerly BCIS 94.1)

CIS 85
UNIX PRODUCTIVITY TOOLS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 56 with a grade of Credit or "C" or higher is strongly recommended.
This course is designed for students in computer science to introduce them to basic productivity tools that are available on the UNIX platform. These tools include the basic command-line and menu-driven utilities such as vi, emacs, mail and pine; the GUI (Graphical User Interface) tools such as GNUwrite and GNUmeric; and the advanced, integrated productivity suites such as StarOffice, whichi will be discussed in detail. Other advanced tools such as the GIMP (GNU Image Manipulation Program) will be presented so that students will be able to use, configure and support these applications.

CIS 101 (CAN BUS 6)
INTRODUCTION TO COMPUTER INFORMATION SYSTEMS **3 UNITS**
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
This course provides the student with the essential knowledge required for a well-rounded understanding of the use of the computer as a tool to produce useful information in small and large work environments. The course allows the student to achieve an understanding of computer technology, computer hardware, computer software and how computers can be used to produce meaningful information. The student will solve applied problems in spreadsheet preparation and analysis using Microsoft EXCEL and in database programming using Access. (Formerly BCIS 40)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. CIS 101 and 102 combined: maximum credit, one course.*

CIS 102
INTRODUCTION TO MICROCOMPUTER HARDWARE AND APPLICATIONS SOFTWARE **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
This course instructs the students in the use of microcomputers within an organizational environment using the Microsoft Windows interface and current applications software. Software topics include file management, elementary word processing, applications in spreadsheet use, database management, and presentation graphics. (Formerly BCIS 15)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: CIS 101 and 102 combined: maximum credit, one course.*

CIS 103
COMPUTER PROGRAMMING LOGIC **3 UNITS**
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in or completion of CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in computer program flowcharting and programming languages. Computer program flowcharting concepts will be developed, beginning with the most basic of programs and gradually developing the acumen to handle complex business applications. In addition, the BASIC programming language will be utilized to code and debug flowcharting logic on the computer. (Formerly BCIS 56)
Transfer Credit: CSU; UC

CIS 105
USING MICROSOFT WINDOWS **1.5 UNITS**
Class hours: 3 lecture +1 hr. lab. arr. (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 102 or equivalent with a grade of Credit or "C" or higher.
This course covers the use of Microsoft Windows. Currently available Windows Operating Systems will be explored, including Windows 95, 98, NT, Millennium Edition, and Windows 2000. Topics include file and application management, personalizing the system, using the productivity tools, connecting to the Internet, and exchanging data. Current topics of interest relating to Windows will also be discussed. (Formerly BCIS 69.27/BCIS 34).
Transfer Credit: CSU

CIS 120
WEB DESIGN WITH MICROSOFT FRONTPAGE **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 121 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course covers the features and capabilities of FrontPage. Students learn how to create Web pages with FrontPage. The Web designing projects provide a practical application of Web developments with a real world environment. (Formerly BCIS 76)
Transfer Credit: CSU

CIS 121
INTERNET FOR INFORMATION SYSTEM / INFORMATION TECHNOLOGY **1.5 UNITS**
Class hours: 3 lecture +1 hr. lab. arr. (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will cover the fundamental features of the Internet and represents a foundation class for Information Technology. Students will learn how to access and use the Internet. Topics covered will include electronic mail, File Transfer Protocols, Telnet, Search tools for various Internet resources, World Wide Webs, newsgroups, Listserv, BBS (Bulletin Board Service) and other resources. The Internet as a Wide Area Network will be reviewed. (Formerly BCIS 69.24/BCIS 82)
Transfer Credit: CSU

CIS 125
JAVASCRIPT FOR PROGRAMMERS **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 205 and a knowledge in one programming language or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course covers the JavaScript programming language. Students learn how to enhance the Web pages to be interactive, intelligent, and

exciting with JavaScript. The course projects provide a practical application of Web page developments with a real world environment. (This course is not open to students who have taken CIS 126.) (Formerly BCIS 91)
Transfer Credit: CSU

CIS 126
JAVASCRIPT FOR NONPROGRAMMERS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 205 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a course in programming Web pages on the client-side using the JavaScript programming language. It is for beginning to intermediate level students who know how to create Web pages and now want to add interactivity to their Web pages. This course is designed for the students who are not familiar with programming language. Programming concepts and terminology will be taught using the JavaScript programming language. (This course is not open to students with credit in CIS 125).
Transfer Credit: CSU

CIS 140
QUERY / 400 **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 141 or equivalent with a grade of Credit or "C" or higher.
This course will cover the fundamental operation and functions of data manipulation on the IBM AS/400. Query/400 will be used to select, arrange, and analyze information (data) stored in one or more databases. (Formerly BCIS 31)
Transfer Credit: CSU

CIS 141
ISERIES 400 OPERATIONS **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the operations of the IBM iSeries 400 Computer System using the OS/400 operating systems. The course includes the following topics: navigating around the system, command structure, message handling, Operation Navigator, trouble shooting, system security, job scheduling, backup/restore, work management, library management, object management, control management, and control language programming.
Transfer Credit: CSU

CIS 141A
OPERATIONS NAVIGATOR I SERIES (AS / 400) **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation; CIS 141 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course will introduce the student to operating an iSeries 400 (AS/400) through the graphical interface Operations Navigator (ON). Operations Navigator will be used to configure, monitor, and manage the iSeries 400 (AS/400). Topics include basic operations, printing, job management, device configuration, security, database management, file systems, backup, and user/groups. This course is primarily for Information Technology professionals with some background in the AS/400 operations.
Transfer Credit: CSU

CIS 142A
AS / 400 OPERATIONS-PART 1 **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the operations of the IBM AS/400 Computer System using the OS/400 operating system. The course includes the following topics: system security, job scheduling, job management, back/restore, work management, library management, object management, hardware architecture and configuration, software, device management, and control language. (Formerly BCIS 23.1)
Transfer Credit: CSU

CIS 142B
AS / 400 OPERATIONS / FACILITIES-PART 2 **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the IBM AS/400 Computer System OS/400 database and file structure. This course will use IBM AS/400's Application Development Tools. The course includes the following topics: Source Editor Utility (SEU), Data File Utility (DFU), Program Development Manager (PDM), Screen Design Aid (SDA), Data Description Specifications, Data file structure and design, physical source file, Library, object, member structure, logical files, display files, menus and simple control language program. (Formerly BCIS 23.2)
Transfer Credit: CSU

CIS 151
MICROSOFT EXCEL FOR INFORMATION SYSTEMS / INFORMATION TECHNOLOGY **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the skill and concepts needed to use the functions of the spreadsheet Microsoft EXCEL for Windows. This course is a foundation class for Information Technology. The fundamentals of building worksheets include: creating worksheets, formatting, functions, formulas, macros, data tables, analysis tools, templates, Wizards, and the creation of charts. Techniques to deal with multiple worksheets and large worksheets are covered. The database functions of EXCEL will include sorting, filtering, queries, macros, and record retrieval. This course covers the topics required in industry certifications. Hands-on exercises are used to reinforce the function of EXCEL. This course is not open to students who have taken both CIS 54A and CIS 54B. (Formerly BCIS 69.29/BCIS 11).
Transfer Credit: CSU

CIS 155
MICROSOFT ACCESS **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 102 or equivalent with a grade of Credit or "C" or higher.
This is a foundation course in database management using Microsoft Access. It covers relational database concepts and design, techniques for building a database using queries, forms, reports, and expressions. Topic also include multiple-table queries and reports and the user interface to a database. This course covers the topics in the Microsoft Office User Specialist (MOUS) certifications. (Formerly BCIS 69.25/BCIS 14).
Transfer Credit: CSU

CIS 155A
MICROSOFT ACCESS CORE LEVEL **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to database

function on IBM compatible personal computers using Microsoft Access for Windows software. Topics include Core Level MOUS Skills for Microsoft Access functions such as creating a database table; creating relationships between database tables, creating forms, reports, mailing labels, and charts; using Database Wizards and OfficeLinks. This course prepares the student for Microsoft Office User (MOUS) Access Core Certification.
Transfer Credit: CSU

CIS 155B
MICROSOFT
ACCESS EXPERT LEVEL 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 155A or equivalent with a grade of Credit or "C" or higher or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course emphasizes advanced database functions on the IBM compatible personal computers using Microsoft Access for Windows software. Topics include Expert Level MOUS Skills for Microsoft Access functions such as building and modifying advanced tables, building and modifying forms, refining queries, using advanced report features, defining relationships, and using Access tools. This course prepares the student for Microsoft Office User (MOUS) Access Expert Certification, which is in the process of being prepared by Microsoft Office.
Transfer Credit: CSU

CIS 170
PROGRAMMING IN BASIC 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in programming microcomputers for business applications. Using Microsoft BASIC, students will develop the skills necessary to convert appropriate information processing requirements into workable computer programs. Discipline, structure and modularity will be stressed throughout the course. Students will learn how to follow a task from problem definition through the successful implementation of a computer program. Business applications will provide the framework upon which programming skills will be built. Students will have "hands-on" access to business oriented microcomputer systems in a lab setting. Lab problems will be assigned and coded in Microsoft BASIC. Implementation of other languages on microcomputers will also be discussed. (Formerly BCIS 16)
Transfer Credit: CSU; UC

CIS 171
VISUAL BASIC PROGRAMMING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 103 or equivalent with a grade of Credit or "C" or higher.
This is a course in designing and programming of the MS-Windows graphical user interface. Topics include standard interface design, event processing and control focus, data exchange, debugging and error handling. (Formerly BCIS 84/CIS 179)
Transfer Credit: CSU;UC

CIS 175
RPG PROGRAMMING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This is a basic course in applying the principles of data processing to standard business applications. The Report Program Generator language will be used, with emphasis on report preparation and file organization. The class introduces the student to CODE/400, a client-server pc-based application development environment; Operations Navigator, a graphical user interface used to create, change and maintain iSeries/400 objects; and also to the Integrated Language Environment (ILE). (Formerly BCIS 57)
Transfer Credit: CSU

CIS 176
COBOL PROGRAMMING 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: CIS 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This is an introductory course in computer programming, utilizing the most frequently used procedural language for business applications--COBOL. COBOL is a "near English" language which provides for thorough documentation of the program, and enables programmers to program on all major manufacturers' equipment with minimum of adjustment. The purpose, structure, content and specific rules of the language will be considered in detail. Business applications will be analyzed, flowcharted, coded and debugged using the computer. Structured programming concepts will be introduced. COBOL lab problems will be assigned. (Formerly BCIS 58)
Transfer Credit: CSU; UC

CIS 177
PROGRAMMING IN PASCAL 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: MATH 80 or equivalent with a grade of Credit or "C" or higher and satisfactory score on the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" of higher.
This is an introductory level computer programming course using the Pascal language. Topics include design of computer programs, data types, input and output, program control, structured data types, files, debugging techniques, functions, procedures, and data structures. (Formerly CPSC 87)
Transfer Credit: CSU; UC

CIS 178 (CAN CSCI 4)
PROGRAMMING IN FORTRAN 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: MATH 140 or equivalent with a grade of Credit or "C" or higher and satisfactory score on the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This is an introductory level programming course using the Fortran programming language. Emphasis is placed on engineering and mathematics applications. Topics include input/output techniques, declaration statements, data types, branching, looping, arrays, subroutines, functions, passing parameters, sorting and searching. (Formerly CPSC 80)
Transfer Credit: CSU; UC

CIS 180
PROGRAMMING IN C/C++ 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This course introduces C and C++ programming language structures. Topics include data types, operators, program control flow, arrays, functions, pointers, character strings, structures and pointers. This course also includes an introduction to object-oriented programming design. (This course is not open to students who have taken BCIS 95.) (Formerly BCIS 83)
Transfer Credit: CSU; UC

CIS 181 A
UNIX PROGRAMMING
IN C/C++ 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite; None.
Recommendation: CIS 180 and CIS 214 (or CIS 215A) with grades of Credit or "C" or higher, or appropriate work experience.
This course introduces the student to

programming on the Unix platform. Topics include the programming environment, editing, preprocessing, compiling, linking, static and dynamic binding, debugging, and the application programming interface (API) to the Unix operating system. Topics specific to the Unix API include standard I/O (input/output), the Unix file system interface, Unix signal processing, process management, and terminal I/O.
Transfer Credit: CSU

CIS 182
JAVA PROGRAMMING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 180 or equivalent with a grade of Credit or "C" or higher.
This course covers the fundamentals of the JAVA programming language used to develop internet, intranet, and world wide web applications. Features of JAVA programming covered in this course include basic JAVA programming constructs, object-oriented programming, and graphical user interface. (Formerly BCIS 92)
Transfer Credit: CSU; UC

CIS 195
BUSINESS DATA COMMUNICATIONS SYSTEMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in data communications and distributed data processing. The course will include discussion on such subjects as types of communications links, data communication codes used in business, data transmission, business uses of multiplexing and concentrators, intelligent data networks and intelligent terminals, system configurations designed for business, and business uses of satellite communications. (Formerly BCIS 81)
Transfer Credit: CSU

CIS 201
SYSTEMS ANALYSIS AND DESIGN **3 UNITS**
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
This course is a detailed study of business data processing systems analysis and design theory and application techniques including: interviewing techniques, systems functions, surveys, flowcharting, analysis, and design. Attention is given to the role of the analyst within the business environment. (Formerly BCIS 61)
Transfer Credit: CSU

CIS 202A
PROJECT MANAGEMENT FOR INFORMATION TECHOLOGY **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 102 and CIS 105 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
This course covers the principles of project management as it applies to the field of Information Technology (IT). Students learn how to plan, execute, and control complex IT systems projects using Microsoft Project. Information technology projects are used to practice and gain "real world" exposure to the complexities and challenges of managing an IT systems development project.
Transfer Credit: CSU

CIS 205
PROGRAMMING IN HTML FOR THE WORLD WIDE WEB **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 103 or CIS 121 or equivalent with a grade of Credit or "C" or higher.
This course covers the fundamentals of the HTML (Hypetext Markup Language) language used to construct pages and documents on the World Wide Web. Features of HTML covered in this course include basic page structure, formatting, linking, handling images, handling color, tables, frames, forms, external media, plug-ins, linked windows, dynamic documents, and image maps. (Formerly BCIS 97.1/BCIS 75)
Transfer Credit: CSU

CIS 206
XML SCRIPTING **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 205 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course introduces the purpose and scope of extensible Markup Language (XML). Topics includes XML structure and syntax, document classes, XML as data, linking mechanism, extensible Style Sheet (XSL), data addressing with XSL patterns, Data Scheme Language, and the Document Object Model.
Transfer Credit: CSU

CIS 207
DATABASE DESIGN AND SQL **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 105 or equivalent with a grade of Credit or "C" or higher.
This course covers the concepts of designing, creating, and accessing Relational Data Base Management Systems using Structured Query Language (SQL). The database programming is based on Microsoft SQL. (Formerly BCIS 36)
Transfer Credit: CSU

CIS 208A
ORACLE SQL AND PL/SQL **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 103 and CIS 155 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
This course covers the concepts of Structured Query Language (SQL) in the SQL *Plus environment, and Oracle's Procedural Language/Structured Query Language (PL/SQL) programming languages for working with relational databases. The students will learn the creation of database objects and the storage, retrieval, and manipulation of data using the Oracle database management system.
Transfer Credit: CSU

CIS 208B
ORACLE DATABASE APPLICATIONS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 208A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course covers the concepts needed to develop database applications using the Oracle database and application development utilities. Students will learn how to create and modify database tables and queries and how to design user interfaces, reports, forms, and graphical charts for database applications.
Transfer Credit: CSU

CIS 209
ORACLE DATABASE ADMINISTRATION AND IMPLEMENTATION **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 212, or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course provides a hands-on knowledge of planning, configuring, and managing an Oracle database system. The student will learn how to configure a server, manage system

resources, create a database, manage users, provide backup and recovery practices, and develop a security model.
Transfer Credit: CSU

CIS 210
NOVELL NETWARE ADMINSTRATION **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 56, CIS 70A, and CIS 101 with grades of Credit or "C" or higher.
This course provides a study of various architectures, topologies, and protocols which combine to create local area networks (LANs), and the Novell NetWare Operating System which controls network functionality, and the Novell Directory Services (NDS) which organizes and controls access to resources. The students will learn Novell Client installation and its features and benefits, workstation and server utilities, Novell Directory Services (NDS) functionality and security, file and print system features and security, customization of the network, troubleshooting techniques, and network connections. (Formerly BCIS 80)
Transfer Credit: CSU

CIS 212
WINDOWS 2000 PROFESSIONAL AND SERVER **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 56 and CIS 105 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a course for system administrators who are responsible for installing and administrating networks based on Windows 2000. Students will learn to install, configure, and optimize Windows 2000, including network inter-operability and trouble shooting. (Formerly BCIS 78)
Transfer Credit: CSU

CIS 212A
MICROSOFT WINDOWS NT – PART 1 **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 56 and CIS 105 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides students with the knowledge and skills necessary to perform post-installation and day-to-day Microsoft NT administrative tasks in single-domain and multiple-domain networks. In addition, it provides students the background to prepare them for the technical support of NT workstations and servers. This course incorporates a hands-on approach to learning the material. This course is intended for those who administer Microsoft Windows NT Server and Windows NT Workstation. This course is compliant with current industry certification. (Formerly BCIS 78.1)

CIS 212B
MICROSOFT WINDOWS NT – PART 2 **1.5 UNITS**
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 212A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides students with the knowledge and skills necessary to install, configure, customize, and troubleshoot Microsoft Windows NT in a single-domain Microsoft Windows NT-based network. This course incorporates a hands-on approach to learning this material. The course is intended for those who support or administer Microsoft Windows NT Server and Windows NT Workstation 4.0. This course is compliant with concurrent industry certification. (Formerly BCIS 78.2)

CIS 213A
MICROSOFT WINDOWS ACTIVE DIRECTORY SERVICES **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 212 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course provides an overview of Microsoft Windows Active Directory Services, used in the latest Microsoft network operating systems. It helps students develop knowledge and skills to install, configure, and administer Windows 2000 Active Directory Services, implement Group Policy, and perform the Group Policy-related tasks that are required to centrally manage users and computers. Students learn to set up and administer domain user accounts and groups, delegate administrative control of Active Directory objects in Windows 2000, create and manage trees and forests in a Windows 2000 network, administer forest-wide resources, manage Active Directory replication and operation master, manage and restore the Active Directory database, and implement an Active Directory infrastructure. The course also prepares students for the Microsoft Certified Professional (MCP) Exam 70-217- a core requirement on the Windows 2000 Microsoft Certified Systems Engineer (MCSE) track.
Transfer Credit: CSU

CIS 213B
IMPLEMENTING A WINDOWS 2000 NETWORK INFRASTRUCTURE **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 212 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course provides instruction in implementing and administering a Windows® 2000 network infrastructure. Topics include installing, configuring, managing, monitoring, and troubleshooting Domain Name System (DNS), Windows Internet Naming Service (WINS), Internet Protocol (IP) routing, Network Address Translation (NAT) and Certificate Services. This course covers the knowledge and skills needed for the Microsoft® 2000 Certified Professional (MCP) certification examination 70-216, Implementing and Administering a Microsoft Windows® 2000 Network Infrastructure, which is a core component for the Microsoft® Certified Systems Engineer (MCSE).
Transfer Credit: CSU

CIS 213C
DESIGNING A MICROSOFT WINDOWS DIRECTORY SERVICES INFRASTRUCTURE **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 212 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course provides student with the knowledge and skills necessary to design a Microsoft® Windows® 2000 directory services infrastructure in an enterprise network. Strategies are presented to assist the student in identifying the information technology needs of an organization, and then designing an Active Directory™ structure that meets those needs.
Transfer Credit: CSU

CIS 213D
DESIGNING A MS WINDOWS 2000 NETWORK INFRASTRUCTURE 2.5 UNITS
Class hours: 5 lecture (9 weeks)
Prerequisite: CIS 212 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course provides students with the information and skills needed to create a networking services infrastructure design that supports the required network applications. It covers Microsoft® Windows® 2000 network solutions, such as Dynamic Host Configuration Protocol (DHCP), Open Shortest Path First (OSPF), Routing Information Protocol (RIP), and Internet Group Management Protocol (IGMP).
Transfer Credit: CSU

CIS 213E
MANAGING WINDOWS 2000 NETWORK ENVIRONMENT 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 212 or equivalent with a grade of Credit or "C" or higher or appropriate work experience.
This course is to provide the knowledge required by System Administrators, Network Administrators, and Information Technology (IT) professionals who implement, manage and troubleshoot existing network and server environments based on the Microsoft Windows® 2000 platform. These skills are generally required in medium to large size organizations via Local Areas Networks (LANs) and the Internet or Intranets. Additionally, this course provides the skills and knowledge that Microsoft Certified Systems Administrator (MCSA) certification candidates need to prepare for the Microsoft Certified Professional (MCP) Exam 70-218: Managing a Microsoft Windows 2000 Network Environment, a core component for the Microsoft® Certified Systems Administrator (MCSA) certification.
Transfer Credit: CSU

CIS 213F
MICROSOFT WINDOWS NET ENTERPRISE SERVER ADMINISTRATION 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is to provide the knowledge required by system administrators, network administrators, and IT (Information Technology) professionals who implement, manage and troubleshoot network and server environments based on the Microsoft Windows® .Net platform. It offers up-to-date information on core system administration topics such as Active Directory services, security, disaster planning and recover, and interoperability with NetWare and UNIX. It includes information on Microsoft Internet Security and Acceleration (ISA) Server and scripting. Additionally, this course prepares students for the Microsoft Certified Professional (MCP) Exam 70-275, a core requirement on both the Microsoft Certified System Engineer (MCSE) and Microsoft Certified System Administrator (MCSA) tracks.
Transfer Credit: CSU

CIS 214
UNIX 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Knowledge of one operating system.
This course is a comprehensive study of the UNIX operating system and its administration. Topics include UNIX commands, file manipulation and maintenance, user management, shell programming, configurations, back-up, security, and networking. (Formerly BCIS 39)
Transfer Credit: CSU

CIS 215
UNIX INTERNET SERVICES 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 214 with a grade of Credit or "C" or higher is strongly recommended.
This course is designed for students in computer science to introduce basic installation, configuration, operation and support of intranet and Internet services hosted on the UNIX platform. Topics include LAN (Local Area Network) protocols such as DHCP (Dynamic Host Configuration Protocol), NIS (Network Information Service), NFS (Network File System), and UUCP (Unix to Unix CoPy) and WAN (Wide Area Network) protocols such as DNS (Domain Name Service), FTP (File Transfer Protocol), SMTP (Simple Message Transfer Protocol), IMAP Internet Message Access Protocol), POP (Post Office Protocol), HTTP (HyperText Transfer Protocol), and NNTP (Network News Transfer Protocol). Necessary supporting systems such as the UNIX kernel's process structure hierarchy, file system and print services are also covered.
Transfer Credit: CSU

CIS 215A
SOLARIS FUNDAMENTALS 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 56 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
An introduction to the Solaris[tm] Operating Environment for System Administrators teaches the beginning student how to use UNIX® operating system commands and basic Solaris Operating Environment commands. This class is for new users of the Solaris environment. Students will learn fundamental command-line features of the Solaris Operating Environment including file system navigation, file permissions, the Visual(vi) Text Editor, command shells, and basic network use. This course is equivalent to Sun Microsystems course number SA-118.
Transfer Credit: CSU

CIS 215B
SOLARIS ADMINISTRATION I 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 214 or CIS 215A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is an introduction to the essential tasks of stand-alone host operating system installation, file system management, backup procedures, process control, user administration, and device management on the Solaris™ Operating Environment for Sun workstations. This class is equivalent to Sun Microsystems course number SA-238 and leads to Sun certification.
Transfer Credit: CSU

CIS 215C
SOLARIS ADMINISTRATION II 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 215B or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is an introduction to the essential skills necessary to administer Sun systems running Solaris in a network environment including maintenance of Sun Systems, configuring and troubleshooting the Network File System (NFS), and configuring the Network Information Service (NIS) environment. This class is equivalent to Sun Microsystems course number SA-288 and leads to Sun certification.
Transfer Credit: CSU

CIS 220
WINDOWS PROGRAMMING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 180 or equivalent with a grade of Credit or "C" or higher.
This course covers the development of basic windows operations using Windows development tools and object-oriented languages. Topics include keyboard/mouse input, system timer, memory management, graphics interface, data exchange, and message model. (Formerly BCIS 89)
Transfer Credit: CSU

CIS 221
ADVANCED VISUAL BASIC 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 171 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course familiarizes the students with client/server database programming, OLE (Object Linking and Embedding), DDE (Dynamic Data Exchange), API (Application Programming Interface), ActiveX controls, multimedia, and object-oriented programming design. The students develop practical business applications. (Formerly BCIS 88)
Transfer Credit: CSU

CIS 222
ADVANCED RPG PROGRAMMING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 175 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This is a second course in the use of the RPG programming language in which emphasis is placed on using the more advanced features of the language. Students are introduced to modular programming, static and dynamic binding, and the use of service programs in the Integrated Language Environment (ILE). Students are also introduced to coding using IBM's CODE/400, a client-server pc-based application development environment. Other topics include Operations Navigator, a Graphical User Interface (GUI), used to create, change, and maintain iSeries/400 objects and traditional iSeries/400 application development tools such as Source Entry Utility (SEU), Screen Design Aid (SDA), and Data File Utility (DFU). The emphasis is on the creation of interactive programs versus batch programs. Advanced topics include the use of subfiles for interactive programs and an introduction to SQL's Data Definition Language (DDL) and Data Manipulation Language (DML). Programming is done both on a stand-alone pc-compatible workstation and on an iSeries midrange computer. (Formerly BCIS 67)
Transfer Credit: CSU

CIS 223
VISUALAGE RPG PROGRAMMING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 175 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a second course in the use of the RPG programming language. Students are introduced to modular programming in procedural and event-driven programs. They are also introduced to static and dynamic binding, and the use of service programs in the Integrated Language Environment (ILE) and dynamic link libraries (DLL's) for pc-based standalone applications. VisualAge RPG is part of a suite of application development tools called WebSphere Development Tools/400.
Transfer Credit: CSU

CIS 223B
BUILDING ISERIES / 400 WEB APPLICATIONS WITH ILE RPG 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 175 and CIS 205 or equivalent with grades of Credit or "C' or higher.
Corequisite: None.
Recommendation: None.
This is a course on designing web applications on an IBM (International Business Machines) iSeries/400 midrange computer using knowledge of HTML (Hyper Text Marjup Language) and ILE RPG (Integrated Language Environment Report Program Generator). The course topics include configuring the HTTP (Hyper Text Transfer Protocol) server on the iSeries/400 and declaring HTTP server instances, JavaScript, TCP/IP (Transport Control Protocol/Internet Protocol), the iSeries/400 IFS (Integrated File System) and the use of API's (Application Program Interfaces). The language RPG is used to create CGI (Common Gateway Interface) programs that "web enable" existing RPG programs that produce output to terminal screens or spooled files for later printing.
Transfer Credit: CSU

CIS 224
ADVANCED COBOL PROGRAMMING 3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: CIS 176 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This course is designed to extend both the students' skills in computer programming and their knowledge of the most frequently used language in business data processing. The emphasis will be on file processing and the advanced features of a high level implementation of COBOL including: COBOL Sort, Report Writer, Subroutine and Subprogram Linkage, COBOL Library, etc. (Formerly BCIS 71)
Transfer Credit: CSU; UC

CIS 230
ASSEMBLY PROGRAMMING FOR MICROCOMPUTERS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: CIS 177 (Pascal) and CIS 180 ("C" Language),or CIS 178 (Fortran) or equivalent with grades of Credit or "C" or higher.
This course is a detailed coverage of microcomputer architecture and instruction sets and how to use them to design and write assembly language programs. Topics will cover principles of assembly programming including functions, stacks, recursion, macros, input/output devices, precision arithmetic and logic design. (Formerly CPSC 82)
Transfer Credit: CSU; UC

CIS 240
ISERIES 400 CONTROL LANGUAGE PROGRAMMING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 141 or equivalent with a grade of Credit or "C" or higher is strongly recommended.
This course covers the fundamental concepts required to develop control language programs for use on an IBM iSeries 400. Topics include: structured programming, program control, error handling, OS/400 concepts, and when to use CL programs. (Formerly BCIS 66)
Transfer Credit: CSU

CIS 251
ADVANCED SYSTEMS ANALYSIS AND DESIGN 3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: CIS 201 or equivalent with a grade of Credit or "C" or higher.
This course is a study of theory and application of business data processing systems including the use of administrative tools and techniques. Emphasis is placed on planning practical computer information systems for information retrieval, business applications, operations research, and management control. (Formerly BCIS 62)
Transfer Credit: CSU

CIS 253
CLIENT / SERVER DEVELOPMENT WITH POWERBUILDER 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 171 or CIS 180 and CIS 105 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a course in building client/server applications combining a windows-based graphical-user interface and a relational database using PowerBuilder. The students will learn the client/server development methodology and techniques, create applications and forms, and access data in relational databases. (Formerly BCIS 86)
Transfer Credit: CSU

CIS 271
COMPUTER AND INFORMATION SCIENCES OCCUPATIONAL WORK EXPERIENCE 1 UNIT
Class hours: 1 hr/wk coordination class
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Computer and Information Sciences Occupational Work Experience or at least one other course during summer, in a computer-related major. One unit of Computer and Information Sciences Occupational Work Experience requires 60 non-paid hours of work or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second-, third-, and fourth-semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This may be taken for a maximum of 3 units. (Formerly BCIS 72.1/CIS 171)
Transfer Credit: CSU

CIS 272
COMPUTER AND INFORMATION SCIENCES OCCUPATIONAL WORK EXPERIENCE 2 UNITS
Class hours: 1 hr/wk coordination class
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Computer and Information Science Occupational Work Experience, or at least one other course during summer, in a computer-related major. Two units of Computer and Information Sciences Occupational Work Experience require 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second-, third-, and fourth-semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This may be taken for a maximum of 6 units. (Formerly BCIS 172/CIS 172)
Transfer Credit: CSU

CIS 273
COMPUTER AND INFORMATION SCIENCES OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: 1 hour/week coordination class.
Corequisite: Enrollment in 7 or more units, including Computer and Information Sciences Occupational Work Experience, or at least one other course during summer, in a computer-related major. Three units of Computer and Information Sciences Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.
First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site.
Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BCIS 73/74)
Transfer Credit: CSU

CIS 274
COMPUTER AND INFORMATION SCIENCES OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: 1 hour/week coordination class.
Corequisite: Enrollment in 7 or more units, including Computer and Information Sciences Occupational Work Experience, or at least one other course during summer, in a computer-related major. Four units of Computer and Information Sciences Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.
First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site.
Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BCIS 73/74)
Transfer Credit: CSU

CIS 280
OBJECT-ORIENTED PROGRAMMING IN C++ **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 180 or equivalent with a grade of Credit or "C" or higher.
This is a course in Object-Oriented Programming (OOP) using the C++ programming language. Topics presented include abstract data types, objects and classes, operator overloading, inheritance, constructors and destructors, pointers, member functions, virtual functions, the theory of object-oriented programming, and the techniques of object-oriented design. (Formerly BCIS 90)
Transfer Credit: CSU; UC

CIS 282
ADVANCED JAVA PROGRAMMING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 182 or equivalent with a grade of Credit or "C" or higher.
This course covers the JAVA Abstract Window Toolkit (AWT). Topics will include graphical user interface, graphics, multimedia, system management, networking, security, and database connectivity. (Formerly BCIS 93)
Transfer Credit: CSU

CIS 284
CGI AND PERL PROGRAMMING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 180 and CIS 205 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course covers the Common Gateway Interface (CGI) and Perl programming. Students learn how CGI works and how to write CGI Perl scripts to generate dynamic Web pages, process forms, search information, and provide informative responses. This course is not open to students who have already taken BCIS 94. (Formerly BCIS 79)
Transfer Credit: CSU

CIS 285
ACTIVE SERVER PAGES PROGRAMMING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 171 or equivalent with a grade of Credit or "C" or higher.
This course covers the different approaches for creating server-side scripts using Active Server Pages (ASP). The student will learn how to build, implement and execute scripts which create fully-functional Web applications.
Transfer Credit: CSU

CIS 292
DATA STRUCTURES **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: CIS 180 or equivalent with a grade of Credit or "C" or higher.
Corequisite: MATH 140 or prior completion.
This course is designed for students in computer science to cover elementary data structures and advanced programming techniques using C++. Topics include arrays, stacks, queues, linked lists, trees, recursion, sorting, searching, and advanced applications. (Formerly BCIS 85/CPSC 89)
Transfer Credit: CSU; UC

COMPUTERS IN BUSINESS

SEE CIS
(Computer and Information Sciences)

COSMETOLOGY

(Technology Division)

COS 1 (Not degree applicable)
COSMETOLOGY SALON PREPARATION **1 UNIT**
Class hours: 56 semester lab hours(9 weeks)
Prerequisite: COS 50 or COS 60A and COS 60B or equivalent with grades of Credit or "C" or higher.
Corequisite: Enrollment in any one of the following: COS 51, 52, 61A, 61B, 62A or 62B.
This course is designed to permit the student to complete 1600 hours necessary to take the State Board of Cosmetology examination. It provides an opportunity for the student to continue developing manipulative skills in hair styling, hair coloring, permanent waving, chemical straightening, scalp treatments, facials, waxing, manicuring, pedicures, and thermal styling. This course may be taken for a maximum of 4 units. (Formerly COS 50)

COS 50A
INTRODUCTORY COSMETOLOGY I **6.5 UNITS**
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: Limitation on enrollment: Completion of 10th.grade or equivalent.
Corequisite: None.
Recommendation: None.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint students with and to develop their ability to perform the basic skills in hairstyling, hairsculpting, permanent waving, and hair color. Emphasis will be placed on the Bureau of Barbering and Cosmetology Rules and Regulations, and the Cosmetology Act, as well as health, safety, sanitation, anatomy, and chemistry as they relate to the cosmetology profession.

COS 50B
INTRODUCTORY COSMETOLOGY II **6.5 UNITS**
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: COS 50A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint the students with and to develop their ability to perform the basic skills in haircoloring, permanent waving, skin care, manicuring and pedicuring. Emphasis will be placed on the Cosmetology Act, State Board Rules and Regulations, as well as health, safety, sanitation, anatomy, and chemistry as they relate to the cosmetology profession.

COS 50C
INTRODUCTORY COSMETOLOGY III **6.5 UNITS**
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: COS 50B or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint the students with and to develop their ability to perform the basic skills in hair design, hairsculpting, permanent waving, and people skills. Emphasis will be placed on the Cosmetology Act, State Board Rules and Regulations, as well as safety, nail tips and wraps, sanitation, and chemistry as they relate to cosmetology profession.

COS 51A
INTERMEDIATE
COSMETOLOGY I 6.5 UNITS
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: COS 50C or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an intermediate course in theory as it pertains to cosmetology. Students continue to develop manipulative skills in makeup, electric facials, facial waxing, arching, haircoloring, hair lighteners, color weaves, chemical restructuring, soft perm and conditioning to gain knowledge of tricology, anatomy, skin care, nail care, chemistry, health and safety as they relate to cosmetology. Emphasis is placed on professionalism and client relationships.

COS 51B
INTERMEDIATE
COSMETOLOGY II 6.5 UNITS
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: COS 51A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an intermediate course in theory as it pertains to cosmetology. Students continue to develop manipulative skills in air forming, wet hairstyling, chemical waving, hairsculpturing, salesmanship, long hairstyling, chemical relaxing, conditioning, and to gain knowledge of tricology and chemistry, as they relate to cosmetology. Emphasis is placed on professionalism and client relationships.

COS 51C
INTERMEDIATE
COSMETOLOGY III 6.5 UNITS
Class hours: 9.75 lecture/29.25 lab
Prerequisite: COS 51B or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an intermediate course in theory as it pertains to cosmetology. Students continue to develop manipulative skills in facial waxing, acrylic nails, acrylic overlays, hair augmentation and to gain knowledge of tricology, dermatology, electricity, hair color, chemistry, health and safety, as they relate to cosmetology. Emphasis is placed on professionalism and client relationships.

COS 52A
ADVANCED COSMETOLOGY I 6.5 UNITS
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: COS 51C or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an advanced course in theory as it pertains to cosmetology. Students continue to develop manipulative skills in thermal hairstyling, competition styling, hair sculpturing, conditioning, reconstruction, chemical waving, chemical straightening, skin care, European facials, and manicuring. Emphasis is placed on professionalism, client relationships, people skills, salon management, and State Board examination preparation.

COS 52B
ADVANCED COSMETOLOGY II 6.5 UNITS
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: COS 52A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an advanced course in theory as it pertains to cosmetology. Students continue to develop manipulative skills in thermal hairstyling, competition styling, hair sculpturing, conditioning, reconstruction, chemical waving and chemical straightening and hair coloring. Emphasis is placed on professionalism, client relationships and State Board examination preparation.

COS 52C
ADVANCED COSMETOLOGY III 6.5 UNITS
Class hours: 9.75/29.25 lab (6 weeks)
Prerequisite: COS 52B or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is an advanced course in theory as it pertains to cosmetology. Students continue to develop manipulative skills in thermal hairstyling, styling, hair sculpturing, conditioning, reconstruction, chemical waving, chemical straightening, make-up, skin care, European facials, light therapy, skin diseases, skin disorders, acrylic nails and artificial nail tips nail wraps. Emphasis is placed on health and safety, professionalism, client relationships and State Board examination preparation.

COS 53
ADVANCED COSMETOLOGY
MANIPULATION 6.5 UNITS
Class hours: 9.75 lecture/29.25 lab (6 weeks)
Prerequisite: COS 52C or equivalent with a grade of Credit or "C" or higher.
This is an advanced course designed to permit the student to complete 1600 hours necessary to take the State Board of Cosmetology examination. It provides an opportunity for the student to continue developing manipulative skills in hairstyling, hair coloring, permanent waving, chemical straightening, scalp treatments, facials, waxing, manicuring, pedicuring, and thermal styling. This course may be repeated for a maximum of 19.5 units as necessary to complete 1600 hours. (Formerly COS 34.1)

COS 54
INTRODUCTORY ESTHETICIAN 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: Limitation on enrollment: Completion of 10th grade or equivalent.
Corequisite: None.
This is an introductory course designed to develop basic skills and theoretical knowledge necessary to enter the licensed esthetician vocation. Students develop knowledge in theories of cosmetic chemistry, products, and their use and effect on skin. Students' knowledge and ability are achieved in a minimum of 300 hours, through lecture, demonstrations and laboratory in a salon atmosphere. (Formerly COS 96.01/COS 83)

COS 54A
ADVANCED ESTHETICIAN 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 54 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This class is an advanced portion of the esthetic program. It develops skills in electrical modalities, depilatory waxing, paraffin waxing, advanced massage techniques, and corrective make-up. Students develop skills in selecting appropriate facial treatments. The students' ability and knowledge are to be achieved in a minimum of 300 hours through lecture and demonstration by working in a salon atmosphere. (Formerly COS 96.02/COS 84)

COS 60A
INTRODUCTORY
COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Limitation on enrollment: 10th grade education or equivalent.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint the student with, and to develop their ability to perform the basic skills in hairstyling, hairsculpturing, haircoloring, permanent waving, and manicuring. Emphasis will be placed on the Cosmetology Act, State Board Rules and Regulations, safety, sanitation, anatomy, and chemistry as they relate to the cosmetology profession. (Formerly COS 41)

COS 60B
INTRODUCTORY
COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 60A or equivalent with a

grade of Credit or "C" or higher.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It provides an opportunity for the student to perform basic skills in chemical relaxer, soft perms, press and curl, facials and people skills. It provides an opportunity for the student to continue developing manipulative skill in hairstyling, hairsculpturing, haircoloring, permanent waving, manicuring, and pedicuring. Emphasis will be placed on the safety and sanitation as it relates to the cosmetology profession, professionalism and client relationships. (Formerly COS 42)

COS 61A
INTERMEDIATE COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 60B or equivalent with a grade of Credit or "C" or higher.
This is an intermediate course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in thermal hairstyling, wet hairstyling, chemical waving, hairsculpturing, salesmanship, long hairstyling, chemical relaxing, make-up, conditioning, manicuring, and to gain knowledge of tricology, dermatology, and chemistry, as they relate to cosmetology. People skills, press and curl, hair design, and men's hairstyling will also be studied. Emphasis is placed on professionalism and client relationships. (Formerly COS 43)

COS 61B
INTERMEDIATE COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 61A or equivalent with a grade of Credit or "C" or higher.
This is an intermediate course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing people skills, manipulative skills in haircolor, manicuring, scalp treatments, chemical waving, hairsculpturing, and chemistry, hairdesign, permanent wave, press and curl, and chemical relaxing. Emphasis is placed on professionalism, client relationships, and people skills. (Formerly COS 44)

COS 62A
ADVANCED COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 61B or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in haircoloring, thermal hairstyling, competition styling, hairsculpturing, conditioning, reconstruction, chemical waving, chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. (Formerly COS 45)

COS 62B
ADVANCED COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 62A or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in haircoloring, thermal hairstyling, competition styling, hairsculpturing, conditioning, reconstruction, chemical waving, chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. (Formerly COS 46)

COS 70A (Summer only)
INTRODUCTORY COSMETOLOGY 8 UNITS
Class hours: 9.38 lecture/28.13 lab (8 weeks)
Prerequisite: None.
Limitation on enrollment: 10th grade education or equivalent.
Corequisite: None.
Recommendation: None.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint the student with and to develop their ability to perform the basic skills in hairstyling, hairsculpturing, haircoloring, permanent waving, manicuring, and facials. Emphasis will be placed on the Cosmetology Act, State Board Rules and Regulations, safety, sanitation, anatomy, and chemistry as it relates to the cosmetology industry. (Formerly COS 15.1)

COS 70B (Summer only)
INTERMEDIATE COSMETOLOGY 8 UNITS
Class hours: 9.38 lecture/28.13 lab (8 weeks)
Prerequisite: COS 50 or equivalent with a grade of Credit or "C" or higher.
This is an intermediate course in technical and related theory as it pertains to cosmetology. It provides an opportunity for the student to consider developing manipulative skills in hair coloring, thermal hairstyling, chemical waving, chemical straightening, facials, make-up, manicuring. Emphasis is placed on professionalism and personal/client relationships. (Formerly COS 15.2)

COS 70C (Summer only)
ADVANCED COSMETOLOGY MANIPULATION 8 UNITS
Class hours: 9.38 lecture/28.13 lab (8 weeks)
Prerequisite: COS 51 or equivalent with a grade of Credit or "C" or higher.
This is a course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skill in haircoloring, thermal hairstyling, competition styling, hairsculpturing, conditioning, reconstruction, chemical waving, chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. This course may be taken for a maximum of 16 units as necessary to complete 1600 hours. (Formerly COS 15.3)

COS 71A (Summer only)
INTRODUCTORY COSMETOLOGY 4 UNITS
Class Hours: 4.5 lecture/13.5 lab (8 weeks)
Prerequisite: None.
Limitation on enrollment: 10th grade education or equivalent.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It provides an opportunity for the student to perform basic skills in chemical relaxer, soft perms, press and curl, facials, and people skills. Emphasis will be placed on the safety and sanitation as it relates to the cosmetology profession. (Formerly COS 23.1)

COS 71B (Summer only)
INTERMEDIATE COSMETOLOGY 4 UNITS
Class hours: 4.5 lecture/13.5 lab (8 weeks)
Prerequisite: COS 60B or equivalent with a grade of Credit or "C" or higher.
This is an intermediate course in technical and related theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in hair coloring, thermal hairstyling, chemical waving, chemical straightening, facials, make-up, manicuring. Emphasis is placed on professionalism and personal/client relationships. (Formerly COS 23.2)

COS 71C (Summer only)
ADVANCED COSMETOLOGY I 4 UNITS
Class hours: 4.5 lecture/13.5 lab (8 weeks)
Prerequisite: COS 61B or equivalent with a grade of Credit or "C" or higher.
This is a course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in haircoloring, thermal hairstyling, competition styling, hairsculpturing, conditioning, reconstruction, chemical waving,

chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. This course may be taken for a maximum of 8 units as necessary to complete 1600 hours. (Formerly COS 23.3)

COUNSELING AND GUIDANCE

(Counseling Division)

CG 1 (Not degree applicable)
CAREER PLANNING **1 UNIT**
Class hours: 2 hours per week (9 weeks)
Prerequisite: None.
This course is designed to help the student approach career decisions in a systematic way. A variety of techniques are used to assess individual characteristics and relate these to occupational information. At times, sections may be offered which emphasize particular types of situations such as the person making initial career decisions, mid-life career changes, and minority programs. (Formerly CG 2)

CG 2 (Not degree applicable) (Summer only)
SELF AWARENESS TOWARDS EDUCATIONAL READINESS **2 UNITS**
Class hours: 6 lecture/10 lab (6 weeks)
Prerequisite: None.
This course is designed to aid the student in identifying and evaluating individual, educational, and vocational ability. Self-awareness techniques will be used to enhance this assessment process. This class is designed primarily for the EOPS summer students, but is open to all interested students. Field work experience will assist the student to develop skills that enhance his/her work performance. (Ten hours field work for those employed as work study or equivalent volunteer experience as approved by instructor. This course may be taken for a maximum of 4 units. (Formerly CG 4)

CG 3 (Not degree applicable)
ORIENTATION FOR THE STUDENT WITH DISABILITIES **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
This course is designed to orient the disabled student to the varied programs and services offered by Cerritos College. An IEP/learning contract will be developed for each student who enrolls in this course. Emphasis is on assisting the disabled student to successfully integrate into all aspects of the college. (Formerly CG 7)

CG 4 (Not degree applicable)
CAREER EXPLORATION FOR THE STUDENT WITH DISABILITIES **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
This course is designed to assist the disabled student in the process of developing goals for future employment. An Individual Educational Plan (IEP)/learning contract will be developed for each student who enrolls in this course. Emphasis is upon exploring career choices, assessment of interests, and the development of employment seeking skills. (Formerly CG 8)

CG 5 (Not degree applicable)
PERSONAL ASSESSMENT FOR THE STUDENT WITH DISABILITIES **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: CG 3 or equivalent with a grade of Credit or "C" or higher.
This course is designed to assist the student with disabilities to develop personal assessment techniques. The course will present concepts and methods of self-evaluation and personal action including goal setting, time management, making choices, achieving objectives and self advocacy. (Formerly CG 9)

CG 6 (Not degree applicable)
FAMILY LIVING FOR THE STUDENT WITH DISABILITIES **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
This class is designed to explore the various aspects of family life from the viewpoint of the disabled person. An Individual Educational Plan (IEP)/learning contract will be developed for each student who enrolls in this course. Sexuality, marriage and parenting will be addressed. This course may be taken for a maximum of 4 units. (Formerly CG 11)

CG 50
ORIENTATION AND EDUCATIONAL PLANNING **0.5 UNITS**
Class hours: 1.5 lecture (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to introduce students to services offered at Cerritos College; the history and mission of the system of post-secondary education system in California; policies and procedures which affect students at Cerritos College; educational planning, including major and general education requirements, course sequencing, and transfer requirements for the California State University and University of California systems. As part of the course, students will tour the Cerritos College campus, acquainting themselves with the location and function of various offices and service providers. Each student will produce an educational plan specific to her or his educational goal. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 2 units. (Formerly CG 3)

CG 100
COUNSELOR AIDE IN THE COMMUNITY COLLEGE **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course is designed to familiarize the student with the functions and training in the techniques of the student counselor aide in a community college setting. (Formerly CG 10)
Transfer Credit: CSU

CG 200
SUCCESS IN COLLEGE AND CAREER **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide students with knowledge, information, and skills to better understand themselves as students, people, and members of the working world. It will assist them to establish life, career, educational, and personal goals and to develop plans and strategies to successfully meet those goals. (Formerly CG 20)
Transfer Credit: CSU

CG 210
JOB SEARCH STRATEGIES **1 UNIT**
Class hours: 2 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Completion or near completion of a degree program or certificate program or be actively seeking a new employment opportunity.
This is an open entry/open exit, self-paced course designed to prepare students to manage their transition from college-to-work and/or work-to-work situations. Students will learn the fundamentals of the job search process. Students will learn to develop job search strategies, prepare print and electronic resumes and improve their interview skills. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 2 units. (Formerly CG 21)
Transfer Credit: CSU

COURT REPORTING
SEE BUSC

(Business Court Reporting / Computerized Shorthand)

CULINARY ARTS

(Health Occupations Division)

CA 15
CERTIFICATION FOR FOOD HANDLERS **0.5 UNIT**
Class hours: 3 lecture (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course covers the principles of food handling. It is a National Restaurant Association ServSafe course and meets current requirements established by regulatory agencies for a certified food handler. This course is offered on a credit/no credit basis only. (Formerly CA 1.5)

CA 43 / 44 (Not degree applicable)
OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Culinary Arts work experience 43 or 20 hours of employment per week for Culinary Arts work experience 44. The employment must be in a job related to the student's educational goal.
Prerequisite: None.
Corequisite: (1) Enrollment in the Culinary Arts vocational program with 7 or more units including occupational work experience.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job. (Formerly CA 73/74)

CA 50
DINING ROOM SERVICE **2 UNITS**
Class hours: 3 lecture/4 lab (9 weeks)
Prerequisite: A tuberculosis test, within the last six months, validating absence of infection.
Corequisite: None.
Recommendation: CA 15 or CA 101 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to professional waiter/waitress service. The student will develop basic skills utilized in all areas in front of the house restaurant operations including service, guest relations, classic styles, and etiquette. (Formerly CA 5)

CA 50A
DINING ROOM MANAGEMENT **2 UNITS**
Class hours: 3 lecture/4 lab (9 weeks)
Prerequisite: CA 50 or equivalent with a grade of Credit or "C" or higher. A tuberculosis test, within the last six months, validating absence of infection.
Corequisite: None.
Recommendation: CA 15 or CA 101 or equivalent with a grade of Credit or "C" or higher.
This course continues the students' training to professional dining room management level. The student will develop further guest relations skills in a real restaurant setting. Extensive knowledge of bar and beverage service and cash handling will be emphasized. (Formerly CA 5.1)

CA 52
FOOD PRODUCTION **9.5 UNITS**
Class hours: 3 lecture/20 lab
Prerequisite: CA 101 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
This course introduces the beginning student to food products and ingredients and develops basic cooking skills used in commercial kitchens. An introduction to dining room service is also included. The preparation and uses of meats, vegetables, fruits, salads, sandwiches, garnishes, dressing, grilling, deep-fat frying, pan frying, and broiling are included. (Formerly CA 2)

CA 53
COMMERCIAL FOOD PRODUCTION: PANTRY ITEMS **9.5 UNITS**
Class hours: 3 lecture/20 lab
Prerequisite: CA 52 and CA 101 or equivalent with grades of Credit or "C" or higher.
This is a basic course in fundamentals of hotel and restaurant dinner cooking and methods of preparing special pantry items. Lecture/demonstrations and practical experience in varied methods of cooking techniques are an essential part of this course. (Formerly CA 3)

CA 54
COMMERCIAL FOOD PRODUCTION: MEATS & POULTRY **9.5 UNITS**
Class hours: 3 lecture/20 lab
Prerequisite: CA 53 or equivalent with a grade of Credit or "C" or higher.
This course is designed to familiarize the student with the principles and procedures of hotel restaurant butchering, meat purchasing, and the carving of meats and poultry. Includes lecture/demonstration and practical experience in carving procedures, trimming, boning, rolling, tying, and cutting of steaks and chops. (Formerly CA 4)

CA 60
FOODS PURCHASE AND CONTROL **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed to familiarize the student with all aspects of purchasing and cost control within the foodservice industry. Instruction and experience in the areas of forecasting operational needs, menu pricing, food purchasing, and cost control are included. (Formerly CA 6)

CA 80
INTRODUCTION TO BAKING SKILLS **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: CA 101 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
This course introduces the student to basic baking techniques and basic ingredients utilized in the industry. The course will cover developing a variety of breads, sweet doughs, roll varieties, pie dough and fillings, cakes, and cookies. A negative T.B. test for food service personnel is a State regulation. (Formerly CA 10)

CA 81
PROFESSIONAL BAKING AND PASTRY PRODUCTION I **5 UNITS**
Class hours: 3 lecture/7 lab
Prerequisite: CA 80 and CA 101 or equivalent with grades of Credit or "C" or higher.
This course introduces the student to the baking industry, baked products, and ingredients. The student will develop basic skills utilized in professional bakeries. Demonstration and practical experiences in the preparation and use of doughs, pastries and creams, adjusting standard recipes, and interpretive use of weights and measures are included. A negative T.B. test for food service personnel is a State regulation. (Formerly CA 11)

CA 82
PROFESSIONAL BAKING AND PASTRY PRODUCTION II **5 UNITS**
Class hours: 3 lecture/7 lab
Prerequisite: CA 81 or equivalent with a grade of Credit or "C" or higher.
Corequisite: CA 85
This advanced baking course provides the

opportunity to increase skills in producing a more uniform product, with high eye appeal, and improved taste and structure. These products include cakes, pastries, icings, fillings, and specialty breads and rolls. Processed frozen dough, fried products, and frozen baked products are introduced. Maintaining product freshness is emphasized. A negative T.B. test for food service personnel is a State regulation. (Formerly CA 12)

CA 85
ADVANCED PROFESSIONAL PASTRY DESIGN AND DECORATING **3 UNITS**
Class hours: 3 lecture
Prerequisite: CA 81 or equivalent with a grade of Credit or "C" or higher.
Corequisite: CA 82
This advanced professional baking course emphasizes different preparation and decorating techniques utilized in the baking industry. It includes formulation and mixing of icing materials and presentation of design. A negative T.B. test for food service personnel is a State regulation. (Formerly CA 13)

CA 101
INTRODUCTION TO FOOD SERVICE, SAFETY & SANITATION **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course covers the principles of food microbiology, important foodborne diseases, standards that are enforced by regulatory agencies, and applied measures for the prevention of foodborne diseases and other microbiological problems. This course meets current food protection standards for regulatory agents. This course may be taken for a maximum of 4 units. (Formerly CA 1)
Transfer Credit: CSU

CA 120
INTRODUCTION TO HOSPITALITY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an overview of the hospitality industry and its various segments. Course content will include history, organizations, trends, and job opportunities.
Transfer Credit: CSU

DENTAL ASSISTING

(Health Occupations Division)

DA 1 (Not degree applicable)
DENTAL RADIATION SAFETY LICENSING **1.5 UNITS**
Class hours: 4 lecture/5 lab (6 weeks)
Prerequisite: Verification of a minimum of 480 hours of work experience as a dental assistant.
Corequisite: None.
Recommendation: None.
This course prepares the working dental assistant with theories and techniques of intra-oral and extra-oral radiography including application to a variety of patients. Upon satisfactory completion of this course, the student will receive a California Radiation License. This course may be taken for a maximum of 3 units. This course is offered on a credit/no credit basis only. (Formerly DA 40)

DA 51
APPLIED DENTAL SCIENCE I **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: Admission to the Dental Assisting Program.
This course is an introduction to the application of basic dental sciences and infection control. It includes dental terminology, microbiology, anatomy of the head and neck, oral physiology, tooth morphology, preliminary oral examination, taking impressions for study models, pouring models, and bleaching techniques. It also includes procedures in managing asepsis, infection and hazard control consisting of maintenance, disinfection and sterilization of equipment, supplies, and disposal of hazardous waste pertaining to patient care.

DA 52
DENTAL RADIOGRAPHY I **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: Admission to the Dental Assisting Program.
This course is a study of the dental x-ray, the characteristics and methods of controlling x-radiation, types of film used, methods of processing, identifying, and mounting radiographs, radiation safety procedures, interpretation of radiographs, and an analysis of technique errors. It includes modern intra-oral dental and extra-oral radiographic techniques, arrangement and care of the darkroom equipment, composition and preparation of solutions, procedures for processing films, and mounting films. The student will practice on the manikin exposing films using radiation protection and safety guidelines.

DA 53
INTRODUCTION TO CHAIRSIDE ASSISTING **3 UNITS**
Class hours: 2 lecture, 3 lab
Prerequisite: Admission to the Dental Assisting Program.
Corequisite: DA 54.
This course involves instruction in the role and responsibilities of the chairside assistant. It includes basic qualifications, preparing patient for treatment, taking of a health history, charting, terminology, positioning of patient-operator-auxiliary for four-handed dental procedures, assisting with administration of local anesthetic agents, placement of a rubber dam, instrument exchange, oral evacuation, retraction, illumination, and assisting with endodontic procedures. Cardiopulmonary resuscitation is included as part of the course content.

DA 54
INTRODUCTION TO OPERATORY PROCEDURES **4 UNITS**
Class hours: 2 lecture, 6 lab
Prerequisite: Admission to the Dental Assistant Program.
Corequisite: DA 53.
This course includes manikin instruction in the techniques, materials, and instrumentation for assisting in operative dental procedures such as amalgam and composite restorations, gold inlays and crowns, and fixed bridges. An introduction to intra-oral tasks delegated to registered dental assistants which are related to operative dentistry, such as matrix placement, placement of bases and liners, placement of plastic temporary restorations, and removal of excess cement is also provided.

DA 61
APPLIED DENTAL SCIENCE II **3 UNITS**
Class hours: 2 lecture, 3 lab
Prerequisite: DA 51 or equivalent with a grade of Credit or "C" or higher.
Corequisite: DA 63.
This course includes a study of oral pathology, nitrous oxide, pharmacology and the influences of dental medicines on the body systems. Post-injection complications and medical emergencies are included. Emphasis is also placed on preventive dentistry with instruction in four preventive measures: use of fluorides, regular dental examinations, daily practice of effective oral hygiene, good nutrition, and control of food habits. Instruction and supervision of a plaque control program will be achieved through clinical experience with focus on the identification of calculus,

plaque, and stains, applying disclosing agents, and polishing exposed surfaces of the teeth. The student will also develop and implement a community dental health project.

DA 62
DENTAL RADIOGRAPHY II 2 UNITS
Class hours: 1 lecture, 3 lab
Prerequisite: DA 52 or equivalent with a grade of Credit or "C" or higher.
The student will be instructed in advance techniques of dental radiography, anatomical landmarks and dental anatomy pertaining to dental radiography with emphasis placed on evaluation of films. The student will practice taking full mouth radiographs for diagnosis by a dentist. Operation of panoramic equipment will also be included.

DA 63
ADVANCED CHAIRSIDE ASSISTING 4 UNITS
Class hours: 2 lecture, 6 lab
Prerequisite: DA 53 and DA 54 or equivalent with grades of Credit or "C" or higher.
Corequisite: DA 65.
This course includes instruction in the specialties of dentistry and armamentarium required in each specialty. Laboratory content includes development of preclinical skills in the extended functions which are required for the Registered Dental Assistant.

DA 64
DENTAL OFFICE MANAGEMENT 2 UNITS
Class hours: 1 lecture, 3 lab
Prerequisite: DA 51 or equivalent with a grade of Credit or "C" or higher.
This course includes instruction in the non-clinical functions which are integral to the dental office. Subject areas include office communications, scheduling appointments, making financial arrangements, recall, completing insurance forms, record keeping, inventory, bookkeeping, marketing strategies, the use of computers, and other related skills required of a secretarial dental assistant.

DA 65
CLINICAL I DENTAL SCHOOLS 3 UNITS
Class hours: 1 lecture, 7 lab
Prerequisite: DA 53, DA 54 or equivalent with grades of Credit or "C" or higher.
Corequisite: DA 61, 62, and 63.
This course includes the practice of dealing with patients and working with dental students in four-handed dental procedures. The clinical instruction in this course is conducted at dental schools. Emphasis is placed on general operative dentistry, endodontics, and treating emergency patients. Weekly seminars are devoted to the evaluation of the clinical experience which includes techniques, patients' special needs, and communicating with patients and staff.

DA 75
CLINICAL II COOPERATIVE OFFICE TRAINING 5 UNITS
Class hours: Lecture total semester hours 20, lab total semester hours 192.
Prerequisite: DA 65 or equivalent with a grade of Credit or "C" or higher.
This course includes the practice of working as a member of the dental team in community dental offices under the direct supervision of dentists. Emphasis is placed on general practice procedures, specialty areas, and the clinical application of intraoral tasks assigned to the registered dental assistant. Proficiency of all skills in the use of equipment is emphasized. The students will develop a professional attitude in all phases of dental assisting, including legal and ethical aspects of dental practice. Weekly seminars are held to evaluate and review clinical applications. Preparation for the certification and Registered Dental Assistant examinations will be included.

DENTAL HYGIENE

(Health Occupations Division)

DH 110
PREVENTIVE DENTISTRY I 2 UNITS
Class hours: 2 lecture
Prerequisite: Admission to the Dental Hygiene Program. A valid adult, child and infant CPR card including two-person CPR.
This course introduces the student to the concept of optimum oral health care through plaque control, preventive dentistry and the role of the auxiliaries on the dental health team. Emphasis is placed on oral hygiene practices and patient motivation. Also included are etiology of soft and hard deposits, and patient instruction in plaque control care. (Formerly DH 10)
Transfer Credit: CSU

DH 111
INFECTION CONTROL AND DENTAL OFFICE EMERGENCIES 2 UNITS
Class hours: 2 lecture
Prerequisite: Acceptance into Dental Hygiene Program.
Corequisite: DH 115C.
This course covers the basic principles of infection control and the application of "universal precautions" in the dental health care setting. Included in this course is the selection and use of procedures and products to prevent the spread of infectious diseases in the practice of dental hygiene. Specific step-by-step procedures and current regulatory mandates related to infection control and the management of hazardous materials will be covered in detail. In addition, knowledge and skills related to preparedness for the prevention of medical emergencies in the dental setting will be covered. (Formerly DH 11)
Transfer Credit: CSU

DH 112
DENTAL HYGIENE RADIOGRAPHY 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: Admission to the Dental Hygiene Program.
Corequisite: DH 116 and DH 119.
This course is a study of the dental x-ray, the characteristics and methods of controlling x-radiation, types of film used, methods of processing, identifying, and mounting radiographs, radiation safety procedures, interpretation of radiographs for preliminary evaluation and the use of photographic equipment for case study. It includes the theories and techniques of intra-oral and extra-oral radiography with laboratory experience and analysis of technique errors. (Formerly DH 12)
Transfer Credit: CSU

DH 114
DENTAL HYGIENE CLINICAL SCIENCES I 2 UNITS
Class hours; 2 lecture
Prerequisite: Admission to the Dental Hygiene Program.
Corequisite: DH 115C.
This course introduces the student to the methodology and rationale for patient assessment and data collection. It includes patient histories, determination of vital signs, extraoral and intraoral examination, examination of the gingival and periodontal tissues, examination of the teeth and appropriate documentation of the data. The student will receive essential information for assessment of a patient prior to the formulation of the dental hygiene treatment service plan. (Formerly DH 14)
Transfer Credit: CSU

DH 115C
PRE-CLINICAL DENTAL HYGIENE I 2 UNITS
Class hours: 6 lab
Prerequisite: Admission to the Dental Hygiene Program.
Corequisite: DH 114.
This course provides the student with the pre-clinical and clinical experience designed to develop thorough and efficient dental instrumentation techniques for comprehensive oral hygiene services. (Formerly DH 15)
Transfer Credit: CSU

DH 116
HEAD AND NECK ANATOMY 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: Admission to the Dental Hygiene Program.
Corequisite: DH 119.
This course is a detailed study of the anatomy and physiology of the human head and neck. Emphasis is placed on the correlation of structure and function especially where applicable to clinical dental hygiene. (Formerly DH 16)

DH 119
DENTAL EMBRYOLOGY, HISTOLOGY, AND ANATOMY 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: Admission to the Dental Hygiene Program.
Corequisite: DH 115C and DH 116.
Recommendation: None.
This course covers an introduction to orofacial structures and the study of orofacial embryology, oral histology, and dental anatomy. Clinical considerations relevant to dental hygiene practice and root morphology to enhance instrumentation are included. (Formerly DH 19)
Transfer Credit: CSU

DH 120
PREVENTIVE DENTISTRY II 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 114 and HO 152 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 125C.
Recommendation: DH 110 or equivalent with a grade of Credit or "C" or higher.
This course offers clinical information in the areas of patient motivation for plaque control, including periodontal disease, and dietary analysis. Techniques in nutritional counseling for the dental patient will be emphasized. (Formerly DH 20)
Transfer Credit: CSU

DH 125
DENTAL HYGIENE CLINICAL SCIENCES II 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: DH 114 and DH 115C or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 125C.
This course is designed to support Clinical Dental Hygiene II. It is extended to allow for weekly discussions pertinent to clinical skills and related subjects which can be applied in the dental clinic setting. An overview of the technique and procedures particular to each dental specialty is presented. Dental clinic policies and procedures for clinic operation will be emphasized. (Formerly DH 25.1)
Transfer Credit: CSU

DH 125C
CLINICAL DENTAL HYGIENE II 3 UNITS
Class hours: 9 lab/clinic
Prerequisite: DH 115C or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 125.
This course provides the student with clinical experiences in the practical application of dental procedures to perform comprehensive oral hygiene services. Students are scheduled at off campus dental clinics with supervision from the Cerritos College Dental Hygiene Faculty and will have the opportunity to observe the various dental specialties at the UCLA School of Dentistry. (Formerly DH 25)
Transfer Credit: CSU

DH 126
GENERAL AND ORAL PATHOLOGY 2 UNITS
Class hours: 3 lecture/lab
Prerequisite: DH 112, DH 116 and DH 119 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 125C.
This course includes an in-depth study of the principles of general pathology and the specifics of oral pathology. Emphasis is placed on the clinical recognition, differential diagnosis, and treatment of oral pathologic conditions and associated systemic disorders. (Formerly DH 26)
Transfer Credit: CSU

DH 127
PHARMACOLOGY 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 115C, DH 116, and DH 119 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 125C, DH 126, and DH 128.
This course covers the general principles of pharmacology, use of therapeutic agents utilized in dental practice, an overview of medically prescribed drugs used by dental patients and a background of contemporary pharmacologic issues which concern the consumer. (Formerly DH 27)
Transfer Credit: CSU

DH 128
MANAGEMENT OF PAIN 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: DH 116 or equivalent with a grade of Credit or "C" or higher, and current certification in CPR.
Corequisite: DH 125C and DH 127.
This course is designed to teach the student management of pain control through the use of local anesthetic agents and the administration of nitrous oxide and oxygen when used as a sedative. The physiology and pharmacology agents, indications and contraindications for use, and the treatment of complications and emergencies are stressed. Other modalities of pain control will be discussed. (Formerly DH 28)
Transfer Credit: CSU

DH 129
APPLIED PERIODONTICS 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 114 or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 125C.
This course is designed to provide the student with a thorough understanding of the role of the hygienist in the treatment of periodontal disease. The normal periodontium, the pathogenesis of periodontal disease, etiology, and therapy are studied in detail. Soft tissue curettage and root planing are emphasized. (Formerly DH 29)
Transfer Credit: CSU

DH 150C
CLINICAL DENTAL HYGIENE IIA 1 UNIT
Class hours: 3 lab
Prerequisite: DH 125C or equivalent with a grade of Credit or "C" or higher.
This course provides the student with clinical experiences in the delivery of dental services on patients, utilizing instructor assisted guided discovery learning methodology. Students are scheduled at select contract dental facilities. (Formerly DH 25.2)
Transfer Credit: CSU

DH 232L
DENTAL MATERIALS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: DH 245C.
This course emphasizes the reasons specific dental materials are employed and the ways in which they react to the oral environment. Biological considerations in the selection and utilization of various dental materials are stressed. The course is designed to provide the dental hygiene student with an understanding of laboratory techniques and chairside procedures commonly encountered in dentistry. (Formerly DH 32)
Transfer Credit: CSU

DH 234
DENTAL CARE FOR THE SPECIAL PATIENT 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 125C and DH 127 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 235C.
This introductory course for dental hygiene

care of the medically compromised and older adult patient covers basic information on disease entities which cause disabilities and are common in the older person. Emphasis will be on recognition of medical precautions, medications which affect oral health, barriers and access to oral health care, and prevention and treatment of oral diseases. (Formerly DH 34)
Transfer Credit: CSU

DH 235
DENTAL HYGIENE
CLINICAL SCIENCES III 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 125C or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 235C.
This course is designed to support Clinical Dental Hygiene III. It is intended to allow for further studies in advanced periodontal treatment. (Formerly DH 35.1)
Transfer Credit: CSU

DH 235C
CLINICAL DENTAL HYGIENE III 4 UNITS
Class hours: 12 lab/clinic
Prerequisite: DH 125C or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 235.
This course is designed to provide the student with the continuation of clinical experiences in performing comprehensive dental hygiene services. Students are scheduled at the UCLA Dental Clinic and selected Los Angeles County dental facilities. Under the supervision of the Cerritos College Dental Hygiene faculty, the student will perform traditional dental hygiene functions increasing in complexity through the sequence of clinical courses. (Formerly DH 35)
Transfer Credit: CSU

DH 238
COMMUNITY DENTAL
HEALTH LABORATORY I 1 UNIT
Class hours: 3 lab
Prerequisite: DH 110 or equivalent with a grade of Credit or "C" or higher.
This course provides a basic introduction to the principles of health education, including discussion of the teaching/learning process, and effective pedagogy for the diverse population of elementary school-aged child. Application of principles learned will be applied in the delivery of dental health education to elementary school children in the community. Students will prepare lesson plans, behavioral objectives, and visual media to be used in presenting subject matter to the children. (Formerly DH 38)
Transfer Credit: CSU

DH 239
DENTAL HEALTH
EDUCATION AND RESEARCH I 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 110 or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 120 and DH 238.
This course provides an introduction to research methodology and biostatistics. Emphasis will be placed on reading and interpreting scientific literature and using technology in searching for and developing a scientific table clinic suitable for presentation in the dental community. (Formerly DH 39)
Transfer Credit: CSU

DH 244
ETHICAL ISSUES
IN DENTAL HYGIENE 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 235C or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 245C.
This course investigates ethical issues, dilemmas, and the State Dental Practice Act that affect the standards of behavior for the dental hygienist. Principles of general and biomedical ethics are applied to common examples of situations faced by dentists and hygienists in today's dental practice. (Formerly DH 44)
Transfer Credit: CSU

DH 245
DENTAL HYGIENE
CLINICAL SCIENCES IV 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 235C or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 245C.
This course is designed to support Clinical Dental Hygiene IV and prepare the students for the National Board Dental Hygiene Examination. Current dental treatment philosophies and technological advances in dentistry are presented through case-base problem simulations. In addition, the subject of myofuncitonal evaluation and therapeutic treatment modalities will be introduced. (Formerly DH 45.1)
Transfer Credit: CSU

DH 245C
CLINICAL DENTAL HYGIENE IV 4 UNITS
Class hours: 12 lab/clinic
Prerequisite: DH 235C or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 245
This course is designed to provide the student with the continuation of clinical experiences in performing comprehensive dental hygiene services to patients with complex periodontal problems. Increased opportunities are experienced at multiculturally diverse community settings. With supervision from the Cerritos College Dental Hygiene faculty, the student will perform traditional dental hygiene functions to a greater number of patients with increased efficiency and complexity and will provide services in a geriatric nursing home. (Formerly DH 45)
Transfer Credit: CSU

DH 248L
COMMUNITY DENTAL
HEALTH LABORATORY II 1 UNIT
Class hours: 3 lab
Prerequisite: DH 238 and DH 239 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 249.
This course is designed to provide the student with an opportunity to deliver dental health education to a variety of age groups in the community. Emphasis will be on student knowledge and initiative in the design, implementation, and evaluation of a dental health program of his/her choice for an adult group in the community. Additionally, table clinics on a current dental topic of interest will be presented in the community. (Formerly DH 48)
Transfer Credit: CSU

DH 249
DENTAL HEALTH
EDUCATION AND RESEARCH II 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 239 or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 248L.
This course introduces basic concepts of dental public health including oral epidemiology, health care delivery and related research. Teaching/learning philosophies and strategies appropriate for dental health education of diverse adult populations are stressed. (Formerly DH 49)
Transfer Credit: CSU

DH 250C
CLINICAL DENTAL HYGIENE V 1 UNIT
Class hours: 3 lab
Prerequisite: DH 245C or equivalent with a grade of Credit or "C" or higher.
This course is designed to provide clinical experiences and class discussion in preparation for the California State Board Dental Hygiene Licensure Examination. Emphasis will be placed on utilization of State Board criteria to determine eligibility of acceptable patients. (Formerly DH 55)
Transfer Credit: CSU

DIRECTED STUDIES

Directed Studies in any combination may be taken for a maximum of 6 units

DIRECTED STUDIES 98 1 UNIT
Class hours: 3 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).

DIRECTED STUDIES 99 2 UNITS
Class hours: 6 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).

DIRECTED STUDIES 298 1 UNIT
Class hours: 3 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).
Transfer Credit: CSU

DIRECTED STUDIES 299 2 UNITS
Class hours: 6 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).
Transfer Credit: CSU

DRAFTING
SEE ENGT

(Engineering Design Technology)

EARTH SCIENCE

(Science / Engineering / Math Division)

ESCI 101
PHYSICAL ECOLOGY 3 UNITS
Class hours: 2.5 hours lecture, and the equivalent of three one day field trips.
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or "C" or higher.
This course is a general studies course including problems of current concern relative to hydrologic, oceanographic and atmospheric processes as they affect and are affected by man's activities. The technologic, economic, and political aspects of pollution and solutions to environmental problems are studied. (Formerly ESCI 1)
Transfer Credit: CSU; UC

ESCI 101L
PHYSICAL ECOLOGY
FIELD LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: Concurrent enrollment in ESCI 101 or prior completion of ESCI 101 or equivalent with a grade of Credit or "C" or higher.
This is a general studies course offering an opportunity for a more complete understanding of environmental problems discussed in Earth Science 101. It includes a hands-on approach to understanding the processes and materials involved in environmental problems by identification, measurement, and analysis in the field and in the lab. (Formerly ESCI 1.1)
Transfer Credit: CSU; UC

ESCI 104
OCEANOGRAPHY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or "C" or higher.
This course consists of an introduction to the geography of the oceans, geology of the ocean basins, and the chemistry and physics of sea water. The ecology of the sea and its effect on ecosphere are also covered. Landforms and processes of the coastal zone and use and abuse of the marine environment are also discussed. This course is not open to students who have credit for ESCI 5. (Formerly ESCI 4)
Transfer Credit: CSU; UC

ESCI 106
WEATHER AND CLIMATE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or "C" or higher.
This course is a survey of the processes and patterns in the atmosphere which result in the regional distribution of weather and climate. (Formerly ESCI 6)
Transfer Credit: CSU; UC

ESCI 110
INTRODUCTION TO
EARTH SCIENCE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or "C" or higher.
This course is designed for the non-science major. It is not open to those with college credit in geology, physical geography or physical anthropology. It is an integrated course designed to give broad, general knowledge in the areas of anthropology, astronomy, geology, geography, meteorology. (Formerly ESCI 10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. No credit for ESCI 110 if taken after a college course in Geology, Geography, or Astronomy.*

ESCI 180
EARTH SCIENCE MATERIALS AND PREPARATIONS **1 UNIT**
Class hours: 3 lab
Prerequisite: A college course in the earth sciences with a grade of Credit or "C" or higher.
This course is designed primarily for earth science majors. It includes the use and care of earth science materials with particular reference to the preparation and demonstration of laboratory set-ups. An introduction to stockroom procedures is included. As an alternative, a special project resulting in a report or display on some specific topic is possible. This course may be taken for a maximum of 2 units. (Formerly ESCI 20.16)
Transfer Credit: CSU

ECONOMICS

(Humanities / Social Sciences Division)

ECON 66T (Not degree applicable)
INDIVIDUAL ECONOMICS **0 UNIT**
Class hours: 2 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: Enrollment in an economics course.
Recommendation: None.
This is an individualized economics tutorial open entry/exit, credit/no credit, zero unit economics/math lab intended for students entering economics courses. This course will enable students to expand and improve the math skills needed in economics courses. Math and economic principles assignments are selected according to a student's needs and learning style. Individualized instruction will be delivered through computer-assisted instruction, development of a personalized study system for each student, individual and group tutoring in economics and math areas, and meeting with economics instructors to evaluate student progress.

ECON 101
U.S. & GLOBAL ECONOMY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This is a one-semester survey of basic economic concepts and institutions stressing the United States role in the global economy. The course presents the foundations of economic analysis and applications to the market-oriented economy, role of government, and relationships and comparisons with the world economy. It is designed for students who desire an economic perspective without an intensive or technical investigation. Students majoring in Economics or Business Administration should not enroll in this course. (Formerly ECON 3)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. No credit for ECON 101 if taken after ECON 202.*

ECON 102
WOMEN IN GLOBAL ECONOMY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the global economy from the perspectives of women in developing countries. Drawing from various disciplinary fields such as economics, history, political science, anthropology and postcolonial studies, it examines critically the processes of globalization that impact the multiple identities and oppressions which shape women's lives with respect to race, gender, class and culture. This course studies the consequences of strategies of modernization and neocolonialism employed by agencies of economic development such as the World Bank and International Monetary Fund on the lives of women in the developing countries and the surrounding ecological environment.
Transfer Credit: CSU; UC

ECON 201 (CAN ECON 2)
PRINCIPLES OF MACROECONOMICS **3 UNITS**
Class hours: 3 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or "C" or higher, or satisfactory completion of the Math Placement Process.
Recommendation: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This one-semester course emphasizes the study of the macro-economy, business cycles of prosperity and recession, unemployment and inflation, Keynesian and classical theories, aggregate spending and the level of economic activity, banking and interest rates and the Federal Reserve, international trade and finance. (Formerly ECON 1.2)
Transfer Credit: CSU; UC

ECON 202 (CAN ECON 4)
PRINCIPLES OF MICROECONOMICS **3 UNITS**
Class hours: 3 lecture
Prerequisite: ECON 201 and MATH 80 or MATH 80B or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes microeconomics; the study of the behavior of specific markets, firms and consumers in a market economy. This is an introduction to economics which is the study of how scarce resources are used to produce and distribute goods and services. The principle of economic choice and opportunity costs are emphasized. (Formerly ECON 1.1)
Transfer Credit: CSU; UC

ECON 204
MONEY, ETHICS, AND ECONOMIC JUSTICE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or
ENGL 52 or equivalent with a grade of Credit or ""C" or higher.
Students will study the ethical issues such as pros and cons of capitalism, ethics of inequality, responsibilities to the poor, ethics and honesty in business, job responsibility, social obligations of corporations, affirmative action, and sexual harassment. (Formerly ECON 4)
Transfer Credit: CSU; UC

EDUCATION / ELEMENTARY SCHOOL TEACHERS

(Humanities and Social Sciences Division)

EDEL 100
INTRODUCTION TO TEACHING AND LEARNING IN DIVERSE CONTEMPORARY CLASSROOMS **1 UNIT**
Class hours: 1 lecture
Prerequisite: Enrollment in the Cerritos College Teacher Training ACademy (Teacher TRAC) or CSULB's Integrated Teacher Education Program (ITEP).
Corequisite: None.
Recommendation: None.
EDEL 100 will provide students with an introduction to teaching as a profession. The course will address the qualities of an effective teacher, components and purposes of an effective professional portfolio, and critical issues in diverse contemporary classrooms. In this course, students will initiate development of their Teacher TRAC Reflective Practitioner Workbook.
Transfer Credit: CSU

EDEL 200
INTRODUCTION TO EDUCATION 3 UNITS
Class hours: 3 lecture
Prerequisite: Completion of EDEL 100 or equivalent with a grade of credit or "C" or higher.
EDEL 200 provides an overview of the teaching profession for students enrolled in the Teacher TRAC Program. Students will be exposed to the philosophies of education, the history of education in America, the society of education, contemporary issues in education, and the role of education in American society. This course includes 40 hours of field experience.
Transfer Credit: CSU

EDUCATIONAL TECHNOLOGY

(Technology Training and Distance Education Division)

EDT 6T (Not degree applicable)
INDIVIDUALIZED ASSISTANCE FOR TECHNOLOGY-BASED COURSES 0 UNIT
Class hours: 3 lab
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to technology resources on campus and student use of technology for successful completion of technology-based course assignments. Special attention will be given to skills necessary for success in distance education courses.

EDT 7T (Not degree applicable)
INDIVIDUALIZED EDUCATIONAL TECHNOLOGY SKILLS 0 UNIT
Class hours: 3 lab
Open entry/open exit
Prerequisite: EDT 6T
Corequisite: None.
Recommendation: None.
This course increases student knowledge of educational technology resources on campus, improves student use of educational technology for successful completion of technology-based course assignments, and improves student confidence in utilizing educational technology. Special attention will be given to skills necessary for success in distance education courses.

EDT 19
FUNDAMENTALS OF TELECONFERENCING 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to teleconferencing - the interactive transmission of images, sound, data, and control between two or more sites using digital lines. Emphasis will be placed on teleconferencing as a research and training tool in fields such as finance, health care, education, criminal justice, child care, and entertainment. Students will participate in live teleconferences and employ electronic technologies. This course may be taken for a maximum of 4 units. (Formerly EDT 90)

EDT 20
TELECONFERENCING FOR SMALL GROUPS 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the concepts and vocabulary of teleconferencing in small rooms and seminars. Emphasis is placed on safety, scheduling, event planning, wrap-around activities, audio and video fundamentals, audiographics, and networking. Students will critically review videos of professional, small-group encounters. This course may be taken for a maximum of 4 units. (Formerly EDT 91)

EDT 21
TELECONFERENCE TELEMATICS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course develops students' facility in developing telematics media, which employ both analog and digital technologies. Emphasis is placed on those production elements necessary to teleconferencing, including stage and set design, visual and audio media, meeting and conference protocols, and information gathering and distribution. This course may be taken for a maximum of 4 units. (Formerly EDT 92)

EDT 22
TELECONFERENCE REVIEW AND EVALUATION 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the evaluation criteria of teleconferenced events. Students will attend events at the Teleconference Center and the local area and produce written evaluations that employ objective and subjective measurements, audience feedback, and principles of quality control. This course may be taken for a maximum of 4 units. (Formerly EDT 93)

EDT 23
TELECONFERENCE PRODUCTION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with direct experience in producing, directing, and evaluating live, interactive teleconferences, including auditorium, small group, and classroom site events. Emphasis is placed on safety, scheduling, event planning, "wrap-around" activities, audio and video fundamentals, audiographics, and networking. Students will co-produce and critically review live teleconference events. This course may be taken for a maximum of 9 units. (Formerly EDT 94)

EDT 24
TELECONFERENCE PORTFOLIO 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course helps students prepare a video demonstrating their expertise of interactive, teleconferenced meetings and events. The course is a requirement for all students completing the Certificate in Teleconferencing Practitioner. This course may be taken for a maximum of 9 units. (Formerly EDT 95)

EDT 30
FUNDAMENTALS OF INSTRUCTIONAL MULTI-MEDIA PRODUCTION 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The Fundamentals of Instructional Multi-Media Production course focuses on the multi-media skills needed to work within today's educational environments. The course provides a foundation in the use of multi-media production equipment, computer software applications, and other resources to support educators and educational programs. This course may be taken for a maximum of 4 units.

EDT 43
EDUCATIONAL OCCUPATION / WORK EXPERIENCE 3 UNITS
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Educational Occupation Work

Experience in a declared educational major. Three units of Educational Occupation Work Experience require 180 non-paid hours or 225 paid hours of work per semester.
Work experience provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences in the educational work place. The goal of the program is to assist students in expanding specific job skills. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to a career in education must be completed at the training site. Second semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. Three units of Educational Occupation Work Experience requires 180 non-paid hours of work or 225 paid hours of work per semester. This course may be taken for a maximum of 6 units. (Formerly EDT 73)

EDT 50
PREPARATION FOR ONLINE LEARNING **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course teaches students the skills necessary to successfully complete a class on the Internet. Topics include study skills, online student profiles, introduction to the Internet and the World Wide Web, using email and other online services, and basic aspects of word processing. (Formerly EDT 29)

EDT 51
EMAIL FOR EDUCATORS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators who wish to learn about email and how to incorporate email into the academic environment. Participants will learn the fundamentals of email use and management techniques. Emphasis is placed on email within the educational community. Educational topics will include creating lesson plans that utilize email as part of an activity, netiquette, and issues surrounding student safety and security. (Formerly EDT 57/EDT 6)

EDT 52
WINDOWS FOR EDUCATORS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 or equivalent with a grade of Credit or "C" or higher.
This course trains educators and prospective educators in the use of the Microsoft Windows operating environment/system. Topics include desktop settings, file and print management, features of the Windows menu system, Windows attributes, and program management. (Formerly EDT 52/EDT 1)

EDT 53
MACINTOSH FOR EDUCATORS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 or equivalent with a grade of Credit or "C" or higher.
This course trains educators and prospective educators in the use of Macintosh computers in an academic setting. Topics include desktop settings, file and print management, features of the Macintosh menu bar system, attributes, and program management. (Formerly EDT 53/EDT 2)

EDT 57
APPLE / CLARIS WORKS FOR EDUCATORS **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is intended to teach educators the skills and capabilities of integrated software packages such as Claris Works, Apple Works, and Microsoft Works. These are all popular software products used in the K-12 learning environment. Topics include word processing, desktop publishing and presentations, spreadsheets, and databases. Students will produce a variety of documents useful in the K-12 classroom. This course may be taken for a maximum of 2 units.

EDT 64
HYPERSTUDIO BASICS **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is intended to teach educators the basics of HyperStudio, a popular software product for the K-12 learning environment. Topics include creating, managing, and delivering multimedia presentations. Students will produce stacks, buttons, objects, and animations using HyperStudio. Using the Internet and other resources, students will research lesson plan ideas utilizing HyperStudio to incorporate into their curricula. This course may be taken for a maximum of 4 units.

EDT 65
ADVANCED HYPERSTUDIO **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is intended to teach educators more advanced features of HyperStudio, a popular software product for the K-12 learning environment. Topics include adding movies, sounds, and photos to the multimedia presentations, printing to video, and posting on the Internet. Students will learn to use New Button Actions (NBAs), linking to the Web, and scripting with HyperStudio. Using the Internet and other resources, students will create classroom projects and assessment tools to incorporate into their curricula. This course may be taken for a maximum of 4 units.

EDT 66
POWERPOINT FOR FUTURE TEACHERS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51, EDT 52 or EDT 53, and EDT 110 or equivalent with grades of Credit or "C" or higher.
This course teaches presentation graphics using Microsoft PowerPoint. Topics covered include creating, managing, and delivering a curriculum-based presentation. Students will produce conceptual and data-intensive presentations, speaker notes, and handouts incorporating text and graphics. (Formerly EDT 66/EDT 9)

EDT 67
INSPIRATION PRESENTATIONS **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is intended to teach educators the basics of Inspiration, an "idea-mapping" and outlining software tool used in education. Students will create presentation diagrams and outlines to build and reinforce ideas. Students will learn to link presentations directly to the World Wide Web. Using the Internet and other resources, students will create lesson plans to incorporate into their curricula. This course may be taken for a maximum of 4 units.

EDT 68
USING KIDPIX **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is intended to teach educators how to use and teach KidPix, a popular software product for the K-6 learning environment. Topics include creating desktop publishing projects, multimedia projects, and animation using KidPix. Using the Internet and other resources, students will create lesson plans to incorporate into their curricula. This course may be taken for a maximum of 4 units.

EDT 70
EXCEL FOR FUTURE TEACHERS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51, EDT 52 or EDT 53, and EDT 110 or equivalent with grades of Credit or "C" or higher.
This course trains educators and prospective educators in the use of electronic spreadsheets using Microsoft Excel. Topics include the fundamentals of creating worksheets, formulas, and functions, creating charts, Wizards, and techniques to manipulate large worksheets and multiple-sheet workbooks. (Formerly EDT 70/EDT 11)

EDT 81
VIDEOS FOR SCHOOL USE **2 UNITS**
Class hours: 4 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is intended to teach educators the basics of video production for use in the K-12 environment. The course will cover equipment, adding text, graphics, and special effects, scripting, interviewing, and editing. This course may be taken for a maximum of 4 units.

EDT 100
INTEGRATION OF THE INTERNET INTO CURRICULUM **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course is designed for educators who wish to learn about the Internet and how to incorporate the Internet into the classroom curriculum. Participants will learn fundamental and advanced Internet search methods, email use and management, and techniques for setting up and using a website in the classroom. A supportive learning community will be provided where educators collaborate to improve their skills in creating effective learning resources using suitable technologies. (Formerly EDT 3/EDT 54/EDT 11.1)
Transfer Credit: CSU

EDT 101
CREATING CURRICULUM PROJECTS USING THE INTERNET **1 UNIT**
Class hours: 1 lecture
Prerequisite: EDT 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course is for educators who wish to learn about the Internet through innovative curriculum projects. Participants will use fundamental Internet search methods, e-mail and web sites in the creation of an Internet-based project supporting project– or problem-based learning. A supportive learning community will be provided where educators collaborate and improve their skills in creating effective learning resources using suitable technologies. Other topics include impact of technology on education; past, current, and future technology trends; and copyright issues. (Formerly EDT 11.3/EDT 56/EDT 5)
Transfer Credit: CSU

EDT 102
CREATING TECHNOLOGY–BASED CURRICULUM **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 110 or equivalent with a grade of Credit or "C" or higher.
This course is designed for educators and future educators who wish to expand their Internet and technology-integration skills to be used when developing classroom curriculum. Participants will learn to create Internet ready curriculum and methods for using a website in the classroom. A supportive learning environment will be provided where educators and future educators collaborate to improve their skills in creating effective learning resources using suitable technologies.
Transfer Credit: CSU

EDT 103
SPREADSHEETS FOR EDUCATORS **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation; EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course trains educators and prospective educators to use efficiently technology to perform administrative, instructional, and other classroom tasks using electronic spreadsheet software. Spreadsheet-specific topics include the fundamentals of creating worksheets; formulas and functions; creating charts; using Wizards; techniques to manipulate large worksheets and multiple-sheet workbooks; and integration of spreadsheet software into course curriculum. Other topics include impact of technology on education; past, current, and future technology trends; and copyright issues.
Transfer Credit: CSU

EDT 104
WORD PROCESSING FOR EDUCATORS **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course trains educators and prospective educators who wish to learn how to work with word processing documents as they prepare curriculum. Participants will use basic and intermediate word processing functions to create administrative, instructional, and classroom management documents. Word processing topics include creating, editing, saving, formatting, printing, spell checking, searching, replacing, headers and footers, footnotes and hyphenation, thesaurus, macros, merging and outlining functions. Other topics include impact of technology on education; past, current, and future technology trends; and copyright issues. (Formerly EDT 61/EDT 7)
Transfer Credit: CSU

EDT 105
POWERPOINT FOR EDUCATORS **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course trains educators and prospective educators who wish to learn how to work with Microsoft PowerPoint as a mode of teaching and as they prepare curriculum. Participants will use basic and intermediate presentation graphic software functions to create administrative, instructional, and classroom management materials. Topics include creating, managing, and delivering a multi-

media curriculum-based presentation. Students will produce conceptual and data-intensive presentations, create professional output for overheads, on-screen presentations, speaker notes, and support handouts incorporating text and graphics. Other topics include impact of technology on education; past, current, and future technology trends; and copyright issues.
Transfer Credit: CSU

EDT 106
ACCESS FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or equivalent with grades of Credit or "C" or higher.
This course trains educators and prospective educators in the use of database management systems using Microsoft Access. Topics include techniques for building a database, tables, queries, and reports. Other topics include designing curricular lessons and student assignments utilizing databases. (Formerly EDT 71/EDT 12)
Transfer Credit: CSU

EDT 107
DESKTOP PUBLISHING FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course provides an introduction to the functions of desktop publishing software with an emphasis on the educational community. Topics include creating camera-ready printed presentation materials and developing presentation materials such as letterhead stationery, signs and flyers, newsletters, and a personal portfolio. Other topics include impact of technology on education; past, current, and future technology trends; and copyright issues. (Formerly EDT 89/EDT 18)
Transfer Credit: CSU

EDT 110
INTRODUCTION TO EDUCATIONAL TECHNOLOGY 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Introduction to Educational Technology is designed to prepare future teachers with the understanding of how to utilize computers in the educational environment. Participants will learn basic computer terminology, fundamental Internet tools, basic word processing, the use of electronic spreadsheets and use of database management systems. A supportive learning community will be provided where future educators will learn skills in creating effective learning resources using suitable technologies.
Transfer Credit: CSU

EDT 111
WEB DESIGN FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course is for educators with little or no experience creating or designing web pages. Topics of instruction will be web concepts, principles of good web design, special populations compliance, and school web site planning and building. Other topics include educational applications of the World Wide Web, copyright, plagiarism, and security issues. (Formerly EDT 75/EDT 14)
Transfer Credit: CSU

EDT 112
VIRTUAL CURRICULUM 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course is intended to teach educators how to create conferenced and on-line (virtual) curriculum projects for use in the classroom and on the World Wide Web. Students in this course will be given guidelines for developing virtual museums, field trips, on-line exhibits, and exploratoriums from idea conception to the resulting conference or web pages for posting on the Internet. (Formerly EDT 85)
Transfer Credit: CSU

EDT 115
TECHNOLOGY INTEGRATION IN EDUCATION 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 OR EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course trains educators and prospective educators who wish to learn how to integrate technology into classroom teaching and learning. Topics include computer terminology, evaluation of digital media, locating technology resources for specific subject areas, adaptation of lesson plans to incorporate technology, and using multimedia in education. Other topics include impact of technology on education; past, current, and future technology trends, and copyright, plagiarism, and security issues. (Formerly EDT 88/EDT 17)
Transfer Credit: CSU

EDT 119
HARDWARE AND SOFTWARE CONSIDERATIONS FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course is for educators and prospective educators actively involved in the use, purchase and/or maintenance of computer hardware and software in the educational setting. Students will learn the functions of pertinent hardware, how to interface equipment to the computer, system requirements, and evaluation techniques. Students will learn to troubleshoot basic hardware, software, printing, and network problems. Maintaining appropriate maintenance and troubleshooting logs will be addressed. Technology plans and effective classroom management techniques using technology in a limited number of educational settings discussed. (Formerly EDT 85/EDT 15)
Transfer Credit: CSU

EDT 120
EXPLORING ASSISTIVE TECHNOLOGY IN EDUCATION 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51 and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course is intended to develop the sensitivity, skills and knowledge needed by teachers and others in the field of education to create an educational environment that is conducive to learning for students with disabilities. It will also be helpful for those who may have other learning challenges such as English second language learners. Students will investigate strategies for differentiating instruction for students with learning and other disabilities and challenges within the general educational environment. Through lecture and hands-on experience, participants will explore practical uses of software that can be applied to classroom learning materials to make those materials more accessible to students needing assistance.
Transfer Credit: CSU

EDT 125
FUNDAMENTALS OF ONLINE TEACHING **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 50 or EDT 51, EDT 104, EDT 111, and EDT 52 or EDT 53 or equivalent with grades of Credit or "C" or higher.
This course is designed for educators and future educators who wish to learn the fundamentals of teaching online courses. Students will learn online course structures and delivery methods. (Formerly EDT 86/EDT 16)
Transfer Credit: CSU

ELECTRONICS

(Technology Division)

EL 37L (Not degree applicable)
TROUBLESHOOTING SERVICE AND REPAIR LABORATORY **2 UNITS**
Class hours: 6 lab
Prerequisite: EL 202 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is a laboratory course only. It is designed for advanced students who wish to improve their proficiency in servicing and troubleshooting electronic equipment. This course may be taken for a maximum of 4 units. (Formerly EL 37)

EL 43/44 (Not degree applicable)
ELECTRONICS OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Electronics work experience 73 or 20 hours of employment per week for Electronics work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Enrollment in the Electronics vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Electronics students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly EL 73/74)

EL 50
ELECTRONIC TESTS AND MEASUREMENTS **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: EL 100 or equivalent with a grade of Credit or "C" or higher.
This is a course in the use of electronic testing equipment. Topics include measurement theory, techniques, limitations of test equipment, and interpretation of test results. This course may be repeated for a maximum of 3 units. (Formerly EL 97.1/EL 18)

EL 52
BASIC VCR SERVICING **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: EL 202 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is an introduction to the theory, operation and servicing of home video cassette recorders using either BETA or VHS format. The major emphasis is on understanding circuits and service techniques. (Formerly EL 47)

EL 53A
INTRODUCTION TO MICROPROCESSORS **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: EL 114 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is an introduction to microprocessor hardware and software. Topics discussed include the history of the microprocessor and microcontroller families, hardware and software tools, assembly language programming, data structures, subroutine calls, interrupts, and parallel Input/Output(I/O). This course may be taken for a maximum of 6 units. (Formerly EL 44.1)

EL 53B
ADVANCED MICROPROCESSORS **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: EL 53A or equivalent with a grade of Credit of "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course builds on the principles learned in EL 53A as embedded control applications are investigated. Topics discussed include counter-timer applications, serial communication techniques, analog signal conversion, and embedded control. This course may be taken for a maximum of 6 units. (Formerly EL 44.2)

EL 54
A+ CERTIFICATION MICROCOMPUTER REPAIR AND SERVICING **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisites: None.
Corequisite: None.
Recommendation: EL 100, EL 134 or EL 114 and EL 124, and TM 50.
This course instructs the student in fundamentals of troubleshooting and repair of microcomputers using both hardware and software testing techniques. Different types and sizes of microprocessor systems will be discussed. This course prepares the student for the hardware portion of A+ Certification. Laboratory assignments will accompany the lecture material. Some familiarity with a high-level programming language is recommended.

EL 55
NETWORK CABLING TECHNOLOGY **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisites: None.
Corequisite: None.
Recommendation: None.
This course will prepare the student for the network cabling specialist certification. Topics will include identification, description, application and configurations of various cables and terminations. Troubleshooting cables for shorts and opens, transposals and reversals, and understanding pin configurations will also be covered. This course may be taken for a maximum of 6 units.

EL 56
PROGRAMMABLE LOGIC CONTROLLERS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course introduces the student to programmable logic controllers (PLC). Topics to be discussed include history of the PLC, ladder diagrams, programming techniques, programming languages, installation, troubleshooting, and maintenance of the PLC. (Formerly EL 16)

EL 57
ELECTRONIC PROJECT DESIGN AND FABRICATION 1.5 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: EL 100.
This course is an introduction to the methods and techniques of electronic prototype design, layout, fabrication and packaging. Topics covered in this course include component identification, basic shop tools, basic breadboarding, chassis construction, printed circuit fabrication, and assembly. Skills gained shall include parts and component procurement using catalogs and the Internet (search, soldering, wiring and prototyping. This course may be repeated for a maximum of 4.5 units.

EL 60
COMPUTER AIDED CIRCUIT ANALYSIS 1.5 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is an introduction to the fundamentals of computer-aided circuit simulation and electronic design automation (EDA). The emphasis is on the use of the computer in designing and testing electronic circuits for more productive hardware construction. This course may be repeated for a maximum of 3 units. (Formerly EL 97.2/EL 15)

EL 62
OPTOELECTRONICS 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience, and satisfactory completion of the Math Placement Process or TM 50 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a course in the fundamentals of optoelectronics. Topics to be covered include the behavior of light, optics, light sources, lasers, displays, detectors, optical sensors, optocouplers, and fiber optics. (Formerly EL 51)

EL 64A
FUNDAMENTALS OF TELECOMMUNICATION ELECTRONICS 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: EL 120 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: EL 134 or EL 114 and EL 124 or equivalent with grades of Credit or "C" or higher.
This is an introductory course about the electronic principles of computer and communication networks. Course content includes an introduction to networking. Presentation and exploration of the basic aspects of telecommunications and telecommunication systems, spectra, modulation, transmission media, multiplexing techniques, circuit switching, error detection and correction, and circuit testing will also be included. (Formerly EL 64.1)

EL 64B
ADVANCED TELECOMMUNICATION ELECTRONICS 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: EL 64A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is an advanced course in electronic data communications generally covering the electronic principles of Wide and Local Area Networks. The open system interconnection (OSI) reference model is used for comparison of different WAN and LAN implementation and their corresponding technical issues. The transport control protocol/internet protocol (TCP/IP), asynchronous transfer mode (ATM), Frame Relay, integrated services digital network (ISDN), and broadband (BISDN) are among the cases to be studied. (Formerly EL 64.2)

EL 66
FUNDAMENTALS OF ELECTRICITY 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: EL 100 and TM 50 or equivalent with grades of Credit or "C" or higher.
This course introduces the student to the principles of electrical power. Topics to be discussed include electrical safety, generators, motors, wiring, National Electrical Code (NEC), installation, and maintenance. (Formerly EL 19)

EL 76
INDUSTRIAL ELECTRONIC CONTROL 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: EL 124 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: EL 200 or equivalent.
Recommendation: None.
This is a course in the application of electronic circuitry to industrial process control. Topics to be discussed include mechanical systems, sensors, motors, actuators, feedback control, switching circuits, relay control, power-control semiconductors and interfacing of electronic circuits to mechanical, hydraulic and pneumatic systems. (Formerly EL 46)

EL 86
ELECTRIC MOTOR CONTROL 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course presents the principles of motor control. Topics to be discussed include safety, classifications of motors, speed control, and motor applications.

EL 94
INTRODUCTION TO DIGITAL SIGNAL PROCESSING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: EL 200 and EL 244 or equivalent with grades of Credit or "C"or higher, or appropriate work experience.
Corequisite: None.
Recommendation: EL 210 or equivalent with a grade of Credit or "C"or higher.
This course introduces the student to the concepts of digital signal processing (DSP). Topics to be covered include DSP chip architecture, interfacing, programming, digital filtering, voice recognition, and telecommunications applications. Laboratory experiments will demonstrate the application of DSP devices.

EL 96A
INTRODUCTION TO AUTOMATED MANUFACTURING (ROBOTICS) 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisites: EL 134 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course provides an overview of the current robotics industry starting with a brief history which is followed by a review of the basic terms used in the field. The robots are

classified by geometry, power source, application, path control and intelligence. The operation of different types of end effectors is covered along with robot controllers and the basic system sensors. Basic programming techniques are covered. (Formerly EL 55)

EL 96B
AUTOMATED MANUFACTURING (ADVANCED ROBOTICS) 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: EL 96A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to prepare technicians in robotics design and research, robot applications, installations, programming, "start-up" procedures, customer service, troubleshooting and maintenance. The technician will have an understanding in integrated systems. The course covers the operation of work cells including vision systems, tactile sensing, offline programming, interfacing to external computers, and voice input and output. Use of vision and touch sensing will be emphasized. (Formerly EL 56)

EL 100
BASIC ELECTRONICS 4 UNITS
Class hours: 4 lecture
Prerequisite: None.
This is a survey course intended for non-electronics majors. It satisfies the general requirements in electronics for Industrial Arts Teacher Training at state universities. It is also an acceptable substitute for the electronics background required as a prerequisite to enter the electronics program. The course will cover DC and AC electrical theory, magnetism, transistors, and integrated circuits. Basic concepts of electronic devices, circuits, and systems will be demonstrated. (Formerly EL 1)
Transfer Credit: CSU

EL 110
PRINCIPLES OF DC ELECTRONICS 4 UNITS
Class hours: 4 lecture
Prerequisite: None.
Corequisite: TM 50 or equivalent.
Recommendation: EL 100 or equivalent with a grade of Credit or "C" or higher.
This course covers atomic structure and the electron theory, Ohm's and Kirchhoff's laws for DC circuits, magnetism, inductance, capacitance, DC measurements, and DC network analysis. (Formerly EL 10)
Transfer Credit: CSU

EL 110L
DC ELECTRONICS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: Concurrent enrollment or completion of EL 110 or equivalent with a grade of credit or "C" or higher.
Recommendation: EL 100.
Experiments performed in this course are planned to accompany the lectures in EL 110. The student learns to use instrumentation in the measurement and analysis of DC circuits. Color code, symbols, schematics and assembly techniques are introduced. (Formerly EL 10.1)
Transfer Credit: CSU

EL 114
FUNDAMENTALS OF DIGITAL ELECTRONICS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EL 100 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Math Placement Process or MATH 20 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the fundamentals of digital electronics. The material includes number systems, Boolean algebra, logic symbols, computer codes, combinational logic circuits, and programmable logic devices. (Formerly EL 14)
Transfer Credit: CSU

EL 114L
FUNDAMENTALS OF DIGITAL ELECTRONICS LAB 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: EL 114 or equivalent.
Recommendation: None.
This is a laboratory course designed to support the concepts learned in EL 114. Fundamentals of Digital Electronics. Experiments are used to verify the applications of number systems, Boolean algebra, logic symbols, and computer codes. Design projects are assigned to be constructed using integrated circuits and computer simulations. This course may be repeated for a maximum of 2 units. (Formerly EL 14.1)
Transfer Credit: CSU

EL 120
PRINCIPLES OF AC ELECTRONICS 4 UNITS
Class hours: 4 lecture
Prerequisites: EL 110 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course covers the analysis of AC circuits using both resistive and reactive components. The concept of resonance and filter circuits is introduced and network theorems are studied. (Formerly EL 20)
Transfer Credit: CSU

EL 120L
AC ELECTRONICS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisites: EL 110L or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: Concurrent enrollment or completion of EL 120 with a grade of Credit or "C" or higher.
Recommendation: EL 50, El 60, TM 50.
Experiments performed in this course are planned to accompany the lectures in EL 120 (Principles of AC Electronics). The student learns to use electronic laboratory instruments in the measurement and analysis of AC circuits. (Formerly EL 20.1)
Transfer Credit: CSU

EL 124
ADVANCED DIGITAL ELECTRONICS 3 UNITS
Class hours: 3 lecture
Prerequisite: EL 114 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of the principles learned in EL 114. The material includes flip-flops, multivibrator circuits, sequential logic circuits, memory systems interfacing, and an introduction to microprocessors. (Formerly EL 24)
Transfer Credit: CSU

EL 124L
ADVANCED DIGITAL ELECTRONICS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: EL 114L or equivalent with a grade of Credit or "C" or higher.
Corequisite: EL 124 or equivalent.
Recommendation: None.
This is a laboratory course designed to support the concepts learned in EL 124. Experiments are used to verify the applications of flip-flops, multivibrator circuits, sequential logic circuits, memory systems, interfacing, and microprocessors. Design projects are assigned to be constructed using integrated circuits and computer simulations. (Formerly EL 24.1)
Transfer Credit: CSU

EL 134
DIGITAL CIRCUITS AND
COMPUTER LOGIC 3 UNITS
Class hours: 3 lecture
Prerequisite: EL 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: EL 134L
Recommendation: TM 54
This course introduces the student to the fundamentals of digital electronics. The content includes number systems, Boolean algebra, combinational and sequential logic circuits, memory systems, and programmable logic devices that include GALs, PALs, FPGA, VHDL, CPLD, and interfacing techniques. TTL integrated circuits are used in the laboratory to implement student-designed projects. (Formerly EL 34)
Transfer Credit: CSU

EL 134L
DIGITAL CIRCUITS AND
COMPUTER LOGIC LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: EL 134 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
Recommendation: TM 50, EL 60 and EL 100.
This is a laboratory course designed to support the concepts learned in EL 134, Digital Circuits and Computer Logic. Experiments are used to apply the use of number systems, Boolean algebra, and logic symbols to the design and construction of combinational and sequential digital electronic circuits. Basic multivibrator, memory, microprocessor, and programmable logic devices including GALs, PALs, FPGAs, and CPLD and interfacing techniques will also be covered. Students will use hardware description languages such as CUPL and VHDL. Design projects will be constructed using integrated circuits and computer simulations.
Transfer Credit: CSU

EL 200
SEMICONDUCTOR ELECTRONICS 3 UNITS
Class hours: 3 lecture
Prerequisites: EL 120 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
Recommendation: EL 100 or equivalent with a grade of Credit or "C" or higher . This course covers the theory of operation of semiconductor devices and development and analysis of the basic circuits employed in analog electronic systems. (Formerly EL 30)
Transfer Credit: CSU

EL 200L
SEMICONDUCTOR
ELECTRONICS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: EL 120L or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: Concurrent enrollment or completion of EL 200 or equivalent with a grade of Credit or "C" or higher.
Recommendation: EL 50, EL 60
Experiments planned to accompany the lectures in EL 200 covering semiconductor diodes, transistors and transistor amplifiers are included in this course. (Formerly EL 30.1)
Transfer Credit: CSU

EL 202
RADIO AND TV THEORY
AND SERVICING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment, or appropriate work experience.
Theory of superheterodyne receivers and practice in servicing of electronic circuits with special emphasis on commercial radio and television receivers will be explored. (Formerly EL 33)
Transfer Credit: CSU

EL 205
BIO-MEDICAL ELECTRONICS 4 UNITS
Class hours: 3 lecture/3 lab (Fall only)
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment, or appropriate work experience.
Corequisite: None.
Recommendation: None.
The source and nature of electrophysical phenomenon, as it relates to instrumentation, will be explored. The principles of laboratory and therapeutic equipment will be discussed. This will be followed by a study of the practical application of technology to the maintenance, repair and calibration of analysis and patient monitoring equipment. Hospital safety and the problems peculiar to the Intensive Care Unit will also be covered. (Formerly EL 35)
Transfer Credit: CSU

EL 210
ELECTRONIC
SYSTEMS ANALYSIS 3 UNITS
Class hours: 3 lecture
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher, or concurrent enrollment.
Corequisite: None.
Recommendation: EL 210L or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
This is an advanced course which covers the theory of operation of various electronic systems; the analysis of switching and logic circuits; the theory of regulation and control systems, power supplies, and phase locked loops. (Formerly EL 40)
Transfer Credit: CSU

EL 210L
SYSTEMS ANALYSIS
LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: EL 200L or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: Concurrent enrollment or completion of EL 210 with a grade of Credit or "C" or higher.
Recommendation: None.
Experiments planned to accompany the lectures in EL 210 covering power supplies, oscillators, switching and logic circuits, and phase locked loops are included in this course. (Formerly EL 40.1)
Transfer Credit: CSU

EL 212
ELECTRONIC
COMMUNICATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course covers the principles of electronic communications with particular emphasis on transmitters, receivers, antennas, and transmission lines. Applications in commercial, military and amateur equipment are discussed. FCC rules and regulations are included. (Formerly EL 42)
Transfer Credit: CSU

EL 212L
ELECTRONIC
COMMUNICATIONS LAB 1 UNIT
Class hours: 3 lab
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: EL 212.
Recommendation: None.
This course is designed to provide laboratory experiences in communications circuits and devices. The experiments correlate with the lecture material in EL 212 - Electronic Communications. (Formerly EL 42.1)
Transfer Credit: CSU

EL 215
BIO-MEDICAL INSTRUMENTS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher, or concurrent enrollment.
This course is a study of the theory, application, operation, calibration and troubleshooting of Bio-Medical Electronics Instrumentation. It will also include practice in servicing of electronic circuits with special emphasis on Commercial Medical Electronics. (Formerly EL 45)
Transfer Credit: CSU

EL 220
LINEAR INTEGRATED CIRCUITS 3 UNITS
Class hours: 3 lecture
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
Recommendation: EL 220L or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
This course is an introduction to the basics of linear circuits in integrated form. Emphasis is on the operational amplifier, how it functions in theory and practice, its wide range of applications, and its limitations. (Formerly EL 41)
Transfer Credit: CSU

EL 220L
LINEAR INTEGRATED CIRCUITS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: EL 210 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
This is a laboratory course. Experiments performed in this course are planned to accompany the lectures in EL 220 (Linear Integrated Circuits). In this course the student will construct, test and make measurements verifying common characteristics of various linear integrated circuits. (Formerly EL 41.1)
Transfer Credit: CSU

EL 222
ADVANCED RADIO AND TV SERVICING 3 UNITS
Class hours: 2 lecture, 4 lab
Prerequisite: EL 202 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is a study of the special types of circuitry employed in radio and television receivers, including deflection oscillators and amplifiers, high voltage circuits, pulse amplification, high frequency tuners, color circuitry, and multiplex circuits. (Formerly EL 43)
Transfer Credit: CSU

EL 244
INTRODUCTION TO MICROCOMPUTERS 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: EL 134 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is an introduction to the fundamental operations of a general purpose microcomputer. The course will include a study of the memory system, the microprocessor, and input/output circuits. The basic instruction/execute cycle will be discussed and microprocessor machine level programming will be introduced. (Formerly EL 44)
Transfer Credit: CSU

ENERGY

(Science / Engineering / Math Division)

ENGY 110
ENERGY AND THE WAY WE LIVE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or "C" or higher.
This introductory course describes the importance of energy in natural systems, energy resources, and utilization of energy by Man in modern economies. The potential for conservation and use of alternatives to the fossil fuels is studied. (Formerly ENGY 10)
Transfer Credit: CSU; UC

ENGINEERING

(Science / Engineering / Math Division)

ENGR 112
ENGINEERING GRAPHICS 3 UNITS
Class hours: 6 lecture/lab
Prerequisite: None.
Recommendation: MATH 140 or equivalent with a grade of Credit or "C" or higher.
The principles of the graphic language of the engineer expressed through sketching and instrument drawings covering orthographic projection, primary and secondary auxiliary views, dimensioning, and the working drawing. The descriptive geometry methods applied to points, lines, planes, intersections, warped surfaces, developments, and graphical mathematics. Required of all engineering students. (Formerly ENGR 12)
Transfer Credit: CSU; UC

ENGR 123
DESCRIPTIVE GEOMETRY 3 UNITS
Class hours: 6 lecture/lab
Prerequisite: MATH 140 or TM 50 and DRAF 153 or equivalent with grades of Credit or "C" or higher.
This course covers the fundamental principles of descriptive geometry. The course emphasizes applications of these principles to solutions of three dimensional engineering and design technology problems. (Formerly ENGR 23)
Transfer Credit: CSU; UC

ENGR 215 (CAN ENGR 12)
ENGINEERING ELECTRIC CIRCUITS 3 UNITS
Class hours: 3 lecture
Prerequisite: PHYS 202 or equivalent with a grade of Credit or "C" or higher.
This course includes the study of the fundamental principles essential to understanding electric circuits. These include Kirchhoff's Laws, Ohm's Law, network theorems, Mesh and Nodal analysis, Thevenin and Norton equivalent, inductors and capacitors, resister capacitor and resister coil circuits, and sinusoidal steady-state anlaysis and calculations. (Formerly ENGR 15/ENGR 115)
Transfer Credit: CSU; UC

ENGR 235 (CAN ENGR 8)
STATICS 3 UNITS
Class hours: 3 lecture(Spring only)
Prerequisite: MATH 170 and PHYS 101 or PHYS 201 or equivalent with grades of Credit or "C" or higher.
This course covers the part of the science of mechanics that deals with external force systems and equilibrium conditions on bodies. (Formerly ENGR 35/ENGR 135)
Transfer Credit: CSU; UC

ENGINEERING DESIGN TECHNOLOGY

(Technology Division)

ENGT 16
BLUEPRINT READING FOR MACHINE TRADES **2 UNITS**
Class hours: 1.5 lecture, 1.5 lab
Prerequisite: None.
This course is a study of working drawings and blueprints used in manufacturing. Emphasis is placed on the ability to visualize and interpret typical drawings. Research is required into standards, specifications, procedures, bulletins, and techniques, which are a parallel part of the shop drawing system. It is intended to prepare the student for accurate interpretation of drawings in order to carry out the applications required or use them as appropriate reference. (Formerly DRAF 16)

ENGT 117
GEOMETRICAL DIMENSIONING AND TOLERANCING **2 UNITS**
Class hours: 2 lecture
Prerequisite: ENGT 131 or equivalent with a grade of Credit or "C" or higher.
This is a basic course in datums, modifiers, form tolerancing, positional tolerance, and coordinate tolerance conversion. It will introduce students to the state of the art in dimensioning and tolerancing used in industry. (Formerly DRAF 17/DRAF 117)
Transfer Credit: CSU

ENGT 131
FUNDAMENTALS OF DRAFTING INCLUDING AUTOCAD **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
This course, for students who have had no high school mechanical drafting, stresses proper use of manual drafting instruments and computer aided design (CAD) using AutoCAD software for lettering text, geometric construction, isometric drawing, orthographic projection, dimensions, single auxiliary views, sectioning and conventional practices. (Formerly DRAF 31/DRAF 131)
Transfer Credit: CSU

ENGT 133
SHEET METAL LAYOUT AND APPLICATIONS **2 UNITS**
Class hours: 1 lecture, 3 lab
Prerequisite: ENGT 131 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course will familiarize students with sheet metal layout involving triangulation, bend allowances for pattern development, and manufacturing processes for sheet metal. It will also include practical modern day applications in architecture, automotive, advertising displays and other areas affected by this technology. (Formerly DRAF 33/DRAF 133)
Transfer Credit: CSU

ENGT 138
FUNDAMENTALS OF COMPUTER AIDED DRAFTING WITH AUTOCAD **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ENGT 131 or ARCH 111 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is an introduction to computer aided drafting and design using AutoCAD software. It will prepare students to operate the systems and understand the applications of computer graphics utilizing industry standards. Students will learn to use an interactive computer graphics system to prepare drawings on personal computers. Drawings will be stored and retrieved from regular or hard disks, enabling students to produce commercial quality copies using computer-driven plotter and printer. (Formerly DRAF 38/DRAF 138)
Transfer Credit: CSU; UC

ENGT 151
ADVANCED APPLICATIONS OF COMPUTER AIDED DRAFTING AND DESIGN USING AUTOCAD **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ENGT 138 and ENGT 153 or equivalent with grades of Credit or "C" or higher. ARCH 111 may be substituted for ENGT 153.
This course will assist students in the advanced applications of Computer Aided Design. They will utilize the AutoCAD system for customization, use of symbol libraries, menu development, and general applications in their particular fields. (Formerly DRAF 51/DRAF 151)
Transfer Credit: CSU

ENGT 153
MACHINE DRAWING AND DESIGN WITH AUTOCAD **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: ENGT 131 and ENGT 138 or equivalent with grades of Credit or "C" or higher, or appropriate work experience. TM 50 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
Corequisite: None.
Recommendation: TM 50 or one year of mechanical drawing or verifiable work experience and or satisfactory score on Math Placement Test or equivalent.
This course covers auxiliary projections, sections, dimensions, threads and fasteners, working drawings of machine parts including details and assemblies, basic gear and cam layout, and simple mechanisms. (Formerly DRAF 53/DRAF 153)
Transfer Credit: CSU

ENGT 160
AUTOCAD MAP **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ENGT 138 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course introduces students to AutoCAD Map software which delivers all of the power, fluency, and connectivity of AutoCAD software. Content will include analysis and productivity tools to create, maintain, and produce maps in a precise graphical environment. Students will use AutoCAD Map software features to enhance productivity of comprehensive automated mapping tools built in it for engineers, planners, utility managers, and anyone who creates and maintains maps. (Formerly DRAF 160)
Transfer Credit: CSU

ENGT 237
GRAPHICAL STATICS AND STRENGTH OF MATERIALS **3 UNITS**
Class hours: 2 lecture, 4 lab
Prerequisite: TM 50 and ENGT 131 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is a course in the fundamental principles of graphical statistics and strength of materials and their applications to the solutions of typical force systems and equilibrium problems. Applications are made in the fields of drafting, tool engineering, and similar areas using elementary algebra and right angle trigonometry in problem solving. (Formerly DRAF 37/DRAF 237)
Transfer Credit: CSU

ENGT 255
AUTOCAD RENDERING AND SOLID MODELING APPLICATIONS **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ENGT 138 and ENGT 153 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.

Recommendation: None.
This course will assist students in creating advanced applications of solid modeling and applying shading and rendering techniques utilizing AutoCAD. They will use the AutoCAD system for basic theory as well as applications to their particular fields. (Formerly DRAF 55/DRAF 255)
Transfer Credit: CSU

ENGT 256
INTRODUCTION TO AUTOCAD MECHANICAL DESKTOP **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ENGT 138 and ENGT 153 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: MTT 100 and MFGT 100 or equivalent with grades of Credit or "C" or higher.
This course assists students in creating three-dimensional parametric part modeling, assembly modeling and surface modeling designs. Students receive instruction utilizing the most recent release of AutoCAD interfacing with Mechanical Desktop. (Formerly DRAF 56/DRAF 256)
Transfer Credit: CSU

ENGT 257
ADVANCED APPLICATIONS OF AUTOCAD MECHANICAL DESKTOP **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ENGT 256 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course assists students in advanced applications of three-dimensional parametric part modeling, assembly modeling, surface modeling, and bills of materials. Students receive instruction utilizing the most recent release of AutoCAD Mechanical Desktop. (Formerly DRAF 57/DRAF 257)
Transfer Credit: CSU

ENGT 258
DESIGN AND PRODUCTION TECHNOLOGY WITH AUTOCAD **4 UNITS**
Class hours: 3 lecture/3 lab +2 hrs. arr.
Prerequisite: ENGT 153 or equivalent with grade of Credit or "C" or higher, or appropriate work experience.
This course is a study of modern techniques of design using AutoCAD software. Instruction includes the production, operation and process materials selection for AutoCAD plan. Planning, scheduling and cost performance are used to implement design solutions. (Formerly DRAF 58/DRAF 258)
Transfer Credit: CSU

ENGLISH

(Liberal Arts Division)

ENGL 10 (Not degree applicable)
ONLINE WRITING PROJECT **0 UNIT**
Class hours: 2 lab
Open entry/open exit
Corequisite: None.
Recommendation: Concurrently enrolled in a college course that requires written assignments.
This course is an online writing project individually tailored for any student with writing needs, including developing and organizing ideas, grammar, punctuation, and overcoming ESL interference. This course can be taken in connection with any course at the college, which requires written assignments. (Formerly ENGL 99)

ENGL 15 (Not degree applicable)
BEGINNING WRITING **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process.
Corequisite; None.
Recommendation: None.
This course is designed to reduce beginning writing students' fear and anxiety about writing. It develops writing fluency through written activities and assignments designed to teach and reinforce conventions of standard English. This course focuses on sentence structure and development and sentence combining. Students will work toward developing short paragraphs.

ENGL 20 (Not degree applicable)
BASIC WRITING **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English Placement Process or ESL 200 or equivalent with a grade of Credit or "C" or higher.
This course introduces students to the writing process as a means of developing ideas into clear, correct, and effective writing. The course concentrates on short essay writing in accord with the conventions of standard English. (Formerly ENGL 50.1)

ENGL 22 (Not degree applicable)
SPELLING BASICS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with instruction in editing their own writing for standard spelling. This course is offered on a credit/no credit basis only. (Formerly ENGL 69.4/ENGL 64.1)

ENGL 30 (Not degree applicable)
GRAMMAR BASICS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with instruction in editing their own writing for standard grammar. This course is offered on a credit/no credit basis only. (Formerly ENGL 69.5/11.1)

ENGL 31 (Not degree applicable)
PUNCTUATION BASICS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with instruction in editing their own writing for standard punctuation. This course is offered on a credit/no credit basis only. (Formerly ENGL 69.6/ENGL 12.1)

ENGL 32 (Not degree applicable)
SPELLING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed to help students overcome deficiencies in spelling by learning the patterns of language through a step by step instructional approach. The student learns to apply principles of spelling to groups of English words, from simple to complex. (Formerly ENGL 64)

ENGL 33 (Not degree applicable)
INDIVIDUALIZED ENGLISH **0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course assists students in improving and expanding writing and thinking skills needed for successful communication in their careers/and or professions. The course is taught by diagnostic-prescriptive methods, technology mediated instruction, and individualized instruction. (Formerly ENGL 66)

ENGL 50A
ENGLISH GRAMMAR **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Students will study the fundamentals of

English grammar, with an emphasis on parts of speech, phrases and clauses, sentence structure, and correct usage. Class hours may be used to qualify a student for the certified shorthand reporters' examination. (Formerly ENGL 11)

ENGL 50B
ADVANCED GRAMMAR **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 50A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course further develops the student's ability to analyze the structure of English sentences, to recognize and correct errors in usage, punctuation and grammar, and to generate sentences of varied complexity. Class hours may be used to qualify a student for the certified shorthand reporters' examination. (Formerly ENGL 11.5)

ENGL 52
INTRODUCTION TO
COLLEGE COMPOSITION **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher.
This course develops the students' ability to write clearly, effectively, and correctly by guiding students through the writing process. Students write a series of compositions that integrate critical thinking, evaluative writing, and library research. (Formerly ENGL 50.2)

ENGL 53
PUNCTUATION, CAPITALIZATION
AND SPELLING **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course gives comprehensive instruction in preparation of written materials, with particular emphasis on punctuation, capitalization, abbreviations, numbers, spelling, and manuscript preparation. Class hours may be used to qualify a student for the certified shorthand reporters' examination. (Formerly ENGL 12)

ENGL 100 (CAN ENGL 2)
FRESHMAN COMPOSITION **4 UNITS**
Class hours: 4 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course guides the student through the writing process to develop expository prose with an emphasis on effective organization and on correctness. (It meets transfer requirements at four-year institutions.) (Formerly ENGL 1)
Transfer Credit: CSU; UC

ENGL 102
FRESHMAN COMPOSITION
AND LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course continues to develop and improve students' skills in composition and critical analysis by introducing the study of fiction, poetry, and drama, produced by an enlarged canon of authors who reflect culturally diverse backgrounds as the subject for writing assignments. (Formerly ENGL 2)
Transfer Credit: CSU; UC

ENGL 103
CRITICAL AND
ARGUMENTATIVE WRITING **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher or a satisfactory completion of the Advanced Placement English Examination of the College Entrance Examination Board.
Corequisite: None.
Recommendation: None.
This course develops critical thinking, reading, and writing beyond the level achieved in English 100 (Freshman Composition). The course focuses on the development of logical reasoning and analytical and argumentative writing skills. (Formerly ENGL 3)
Transfer Credit: CSU; UC

ENGL 106
INTRODUCTION TO
LANGUAGE STUDY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is the study of language structure and language use. This includes the historical development of language families, the universal properties of these languages, and the individual speech acts that derive from a given language. (Formerly ENGL 6)
Transfer Credit: CSU; UC

ENGL 107
VOCABULARY BUILDING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This is a course in vocabulary building that emphasizes the structural approach to vocabulary study. Emphasis is placed on the prefixes, roots, and suffixes as they combine to form words, and on the meanings and patterns of meanings formed by words in the context of a sentence and paragraph. (Formerly ENGL 7)
Transfer Credit: CSU

ENGL 108
VOCABULARY BUILDING
FOR PROFESSIONALS **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course is designed to further an understanding of word origins, roots and affixes, with particular attention to terms used in business and the professional disciplines. Class hours may be used to qualify a student for the certified shorthand reporters' examination. (Formerly ENGL 8)
Transfer Credit: CSU

ENGL 155
TECHNICAL WRITING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher.
This course enhances students' ability to write clear, effective, and correct technical prose. Students write a series of technical instructions, reports, manuals, and proposals that integrate critical thinking, evaluation, and research. Students will produce a letter of application and resume for technical fields. (Formerly ENGL 5)
Transfer Credit: CSU

ENGL 221A
LITERATURE IN THE BIBLE:
HEBREW SCRIPTURES **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is a general introduction to the literature composing the Hebrew Scriptures (more familiarly known as the Old Testament) in translation. Emphasis will be on understanding the Bible as a literary document through literary analysis, including the study of biblical genres such as history, poetry, narrative, drama, and homiletic, prophetic, apocalyptic and wisdom literature. (Formerly ENGL 21.1)
Transfer Credit: CSU; UC

ENGL 221B
LITERATURE IN THE
BIBLE: CHRISTIAN SCRIPTURES 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course studies the New Testament in English in translation as a literary document. Emphasis is on understanding the literary nature of the Bible through literary analysis, including the study of literary genres such as poetry, epistolary, narrative, drama and biography. (Formerly ENGL 21.2)
Transfer Credit: CSU; UC

ENGL 222
CHILDREN'S LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The course is designed to survey children's literature with special emphasis on the classics. It concentrates on the fable, folktales, fairy tales and the children's novel. (Formerly ENGL 22)
Transfer Credit: CSU; UC

ENGL 223
CHICANA / O LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a study of selected representative literature of Chicano authors. Selected works will be drawn from at least three of the following genres: the novel, the short story, poetry, drama, autobiography, and the essay. (Formerly ENGL 23)
Transfer Credit: CSU; UC

ENGL 224
NATIVE AMERICAN
LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a study of selected representative literature of Native North American Indian writers. The genres included are the novel, the short story, poetry, autobiography, and essay. (Formerly ENGL 24)
Transfer Credit: CSU; UC

ENGL 225
MEXICAN LITERATURE
IN TRANSLATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
A one-semester course to survey Mexican literature in translation. The genres included will be the novel, the short story, the poem, the essay, and the song. (Formerly ENGL 25)
Transfer Credit: CSU; UC

ENGL 226
AFRICAN AMERICAN
LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a study of selected or representative literature of African and African American authors, their viewpoints, styles, forms, and themes. The genres included will be the novel, the short story, drama, poetry, autobiography, essays, and oral performance. Modern and contemporary authors will be highlighted. (Formerly ENGL 26)
Transfer Credit: CSU; UC

ENGL 227
CURRENT LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is a study of literature currently important or currently popular and not ordinarily studied in the regular departmental curriculum. Specific topics, such as best sellers, science fiction, campus classics, California literature, Native American literature, or modern literature, will be announced in the schedule of classes. It may be repeated with different topics for a maximum of 6 units. (Formerly ENGL 27)
Transfer Credit: CSU; UC

ENGL 228
SHAKESPEARE'S PLAYS 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is a general introduction to Shakespeare's plays. Representative selections from the comedies, histories, tragedies, and romances are studied. The emphasis is on discussion and analysis of Shakespeare's relevance to his world and to ours. (This is not an acting class.) (Formerly ENGL 28)
Transfer Credit: CSU; UC

ENGL 229
AUTOBIOGRAPHICAL
LITERATURE / WRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course will advance composition skills in the special area of autobiography through journal writing and the development of a significant autobiography. Autobiographical works by important writers will be read for modeling purposes. (Formerly ENGL 29)
Transfer Credit: CSU; UC

ENGL 230A (CAN ENGL SEQ C)(CAN ENGL 14)
INTRODUCTION TO
AMERICAN LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course studies the representative works of American literature from 1608-1870. Selected works will be drawn from the four major literary periods: Puritan, Enlightenment/Revolutionary, Romantic, and early Realism. (Formerly ENGL 30.1)
Transfer Credit: CSU; UC

ENGL 230B (CAN ENGL SEQ C)(CAN ENGL 16)
INTRODUCTION TO
AMERICAN LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course studies the representative works of American literature from 1870-1990's. Selected works will be drawn from the four major literary periods: Realism, Naturalism, Modernism, and Postmodernism. (Formerly ENGL 30.2)
Transfer Credit: CSU; UC

ENGL 232
READINGS IN POETRY 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or

equivalent with a grade of Credit or "C" or higher.
This course introduces students to the basic elements and functions of poetry. The fundamentals of poetics will be covered from Aristotle to new media and digital mediations. A representative poet will be studied in depth. (Formerly ENGL 32)
Transfer Credit: CSU; UC

ENGL 233
READINGS IN THE NOVEL **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This is a course in the novel emphasizing structure, theme and style. Outstanding Continental, English and American novels are studied. (Formerly ENGL 33)
Transfer Credit: CSU; UC

ENGL 234
READINGS IN SHORT FICTION **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course studies the structure and techniques of the short story and the novelette. Emphasis is on critical analysis of selected American, European and World short fiction throughout time, including contemporary works. (Formerly ENGL 34)
Transfer Credit: CSU; UC

ENGL 235
READINGS IN THE DRAMA **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course studies the drama from its ancient Greek origins to its present-day expressions. It emphasizes both content and form and highlights the literary techniques specific to this genre of literature. (Formerly ENGL 35)
Transfer Credit: CSU; UC

ENGL 236
STUDIES IN
WOMEN'S LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a survey of literature by women reflecting women's changing roles and identities in society in various historical, political and cultural settings. Works studied are drawn from the genres of poetry, fiction, drama, essays and journals.
Transfer Credit: CSU;UC

ENGL 237
ASIAN AMERICAN LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is a study of selected representative literature written by Americans of Asian or Pacific Island descent. The genres included are the novel, drama, short story, and poetry. Memoirs and essays may be included. (Formerly ENGL 37)
Transfer Credit: CSU; UC

ENGL 240 (CAN ENGL 6)
CREATIVE WRITING **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course provides an opportunity for students to explore their interest in literary creativity by writing original short fiction, poetry, play or screenplay, or magazine article(s). Writers will gain understanding of each literary type, have the opportunity to create in each area, and be afforded the chance to have their work critiqued in a workshop setting. This course may be taken for a maximum of 6 units. (Formerly ENGL 40)
Transfer Credit: CSU; UC

ENGL 241
SCRIPTWRITING FOR TELEVISION
AND MOTION PICTURES **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course provides an opportunity for students to develop a screenplay for television or motion pictures. Students learn the craft of screenwriting by studying published scripts, movies, and TV shows and by writing synopses, treatments, scenes, and a production-worthy screenplay. This course may be taken for a maximum of 6 units. (Formerly ENGL 41)
Transfer Credit: CSU; UC

ENGL 246A (CAN ENGL SEQ B)(CAN ENGL 8)
SURVEY OF
ENGLISH LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course studies English literature from the Anglo-Saxon period to the Romantic Movement. Emphasis is on the various themes, forms, and trends in English literature, and how they prefigured Romanticism and later movements. (Formerly ENGL 46.1)
Transfer Credit: CSU; UC

ENGL 246B (CAN ENGL SEQ B)(CAN ENGL 10)
SURVEY OF
ENGLISH LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course studies English literature from the Romantic Movement to the present day. It emphasizes the various themes, forms and trends in English literature. (Formerly ENGL 46.2)
Transfer Credit: CSU; UC

ENGL 248A
MASTERPIECES OF
WORLD LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course studies Western and world literature from the ancient world to the 17th century. Various themes, forms and trends are examined in an effort to understand the universal problems of mankind. (Formerly ENGL 48/ENGL 48.1)
Transfer Credit: CSU; UC

ENGL 248B
MASTERPIECES OF
WORLD LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course studies Western and world literature from the 17th century to the 20th century. Various themes, forms and trends are studied in an effort to examine the universal problems of mankind. (Formerly ENGL 49/ENGL 48.2)
Transfer Credit: CSU; UC

ENGLISH AS A SECOND LANGUAGE

(Liberal Arts Division)

ESL 1 (Not degree applicable)
ENGLISH AS A SECOND LANGUAGE: INTRODUCTION **5 UNITS**
Class hours: 5 lecture
Prerequisite: None.
This course is designed to prepare the limited English-speaking person for college ESL study. It bridges the gap between life-skills English and beginning college ESL courses. It is multi-skills oriented, aiming at speaking, listening, reading, writing, and grammar skills. (Formerly ESL 69.2/ESL 60)

ESL 2 (Not degree applicable)
INTERMEDIATE SKILLS FOR THE ESL STUDENT **5 UNITS**
Class hours: 5 lecture/1 lab
Prerequisite: Satisfactory completion of the English As a Second Language Placement Process or ESL 1 or equivalent with a grade of Credit or "C" or higher.
This course introduces and reviews basic structures of English and provides opportunity for practice in speech and writing. Texts and supplemental materials are used as well as students' personal experiences. English sounds are introduced and practiced. Writing and reading elements of the course stress comprehension. (Formerly ESL 1)

ESL 3 (Not degree applicable)
ADVANCED INTERMEDIATE SKILLS FOR THE ESL STUDENT **5 UNITS**
Class hours: 5 lecture/1 lab
Prerequisite: Satisfactory completion of the English As A Second Language Placement Process or ESL 2 or equivalent with a grade of Credit or "C" or higher.
This course introduces advanced and high-frequency structures of English and provides practice of these structures. Texts and supplemental materials are used as well as the students' environment. Sounds continue to be practiced orally. Writing and reading reinforce comprehension. (Formerly ESL 2)

ESL 4 (Not degree applicable)
SHELTERED ENGLISH AS A SECOND LANGUAGE / AMERICAN HISTORY **0 UNIT**
Class hours: 12 lecture/4 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is an intermediate ESL integrated-skills, content-based class using topics from American history and the geography of events, people and places important in the political, social, and cultural history of the U.S. Topics will be presented in a simplified format using standard ESL methodology. (Formerly ESL 70)

ESL 10 (Not degree applicable)
ESL SPEAKING AND LISTENING **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Students practice oral communication and listening skills. Emphasis is on fluency, correct word usage, and syntax. Topics range from everyday situations to elementary abstractions. (Formerly ESL 3.2)

ESL 11 (Not degree applicable)
ESL FUNDAMENTAL READING SKILLS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course is designed for ESL students who wish to improve in fundamental reading skills. The emphasis will be on phonics, word recognition skills, and basic thinking as they relate to reading.

ESL 12 (Not degree applicable)
ESL PRONUNCIATION **1.5 UNITS**
Class hours: 3 lecture/ 1 lab (9 weeks)
Prerequisite: None.
This course aids the students in reproducing the sounds of American English accurately. Attention focuses on the individual needs of the students. This course may be taken for a maximum of 3 units.

ESL 14 (Not degree applicable)
ACCENT REDUCTION **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is an intensive pronunciation course that includes practice with the sounds of American English in all contexts: syllables, words, sentences, and conversation and an in-depth practice of the stress and intonational patterns of American English. Enunciation (production of sounds with clarity and precision) of American English in varying contexts will be stressed. Each student will be evaluated and assisted with his/her pronunciation difficulties. This course may be taken for a maximum of 6 units.

ESL 20 (Not degree applicable)
ESL SPEAKING AND LISTENING **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Recommendation: ESL 10 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of ESL 10. Students practice oral communication and listening skills. Fluency, correct usage, and syntax are emphasized. Topics are of a more abstract nature. (Formerly ESL 4.2)

ESL 21A (Not degree applicable)
ESL INTERMEDIATE VOCABULARY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is for ESL students who wish to improve vocabulary skills. Emphasis is on building vocabulary, dictionary skills, and word recognition skills to be used in everyday language and college courses. Students will be introduced to the most frequently used English words and will also learn how to infer meaning from context. (Formerly ESL 21/ ESL 21.1)

ESL 21B (Not degree applicable)
ESL ADVANCED VOCABULARY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is for advanced ESL students who wish to improve vocabulary skills at a level beyond that of the intermediate. The emphasis is on general and specialized vocabulary development, advanced dictionary skills, word recognition skills, improvement of sight vocabulary, and application of advanced vocabulary in context techniques. (Formerly ESL 21.2)

ESL 22 (Not degree applicable)
ESL ORAL COMMUNICATION **1.5 UNITS**
Class hours: 3 lecture/1 lab (9 weeks)
Prerequisite: None.
This course identifies and improves the production of American speech sounds. Students prepare, practice and present various oral messages. Emphasis is on stress and intonation. Topics center on students' needs and personal experiences. This course may be taken for a maximum of 3 units.

ESL 23 (Not degree applicable)
ESL SPELLING **1.5 UNITS**
Class hours: 3 lecture/1 lab (9 weeks)
Prerequisite: None.
This course introduces basic spelling rules and provides students with the opportunity for practice orally and in writing. Texts and supplemental materials will be used to reinforce the relationship between oral and written expression. This course may be taken for a maximum of 3 units.

ESL 31 (Not degree applicable)
ESL READING **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course improves the literal, interpretive and critical comprehension skills of the students. Emphasis is on identifying main ideas and significant details, sequence of relationships, inferences of fact and tone, figurative language, and propaganda.

ESL 32 (Not degree applicable)
AMERICAN EXPRESSIONS AND CULTURE **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Students study American expressions and American social customs. Students incorporate common expressions in their conversation and writing. Social customs, such as those regarding time, dress, guest behavior, gestures, and selected public encounters, are discussed.

ESL 33 (Not degree applicable)
ENGLISH FOR SPECIFIC PURPOSES **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course is for students who need work in oral and written English skills in their field. It provides an opportunity to become familiar with situations particular to their field. This course may be taken for a maximum of 3 units.

ESL 34 (Not degree applicable)
ESL STUDY SKILLS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course is for the student who plans on entering college classes and wants to improve listening skills and learning techniques. Emphasis is on methods for reading text books efficiently, taking notes, understanding textbook assignments, and preparing for examinations.

ESL 35 (Not degree applicable)
EDITING FOR ADVANCED GRAMMAR AND SYNTAX **1.5 UNITS**
Class hours: 3 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
This course is designed for the advanced ESL students in writing courses who need help with grammar troublespots that cause difficulties in writing. Rather than provide English grammar review, the course concentrates on rules to help the student apply general principles. It will aid in finding ways to examine and evaluate writing in terms of grammatical accuracy. This course may be taken for a maximum of 6 units.

ESL 36T (Not degree applicable)
INDIVIDUAL ESL TUTORIAL **0 UNIT**
Class hours: 3 lab
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: Enrollment in any Cerritos College course.
This course assists students in reinforcing, expanding, and improving the skills related to their specific English as a Second Language concerns. The course is taught using diagnostic-prescriptive methods, technology-mediated instruction, and individual and small group instruction.

ESL 47T (Not degree applicable)
ESL TUTORIAL **0 UNIT**
Class hours: 3 lab
Open entry/open exit
Prerequisite: None.
This is an open-entry/open-exit self-paced course to familiarize students with ESL related Language Center resources to improve English grammar, idiom and standard usage pursuant to independent work. (Formerly ESL 99)

ESL 100#
ESL WRITING AND STRUCTURE **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English As A Second Language Placement Process or ESL 3 or equivalent with a grade of Credit or "C" or higher.
This course reviews syntax and sentence structure. Students write complex sentences in imitative and original essays. Written summaries are also included. (Formerly ESL 3.1)
*Transfer Credit: UC**
**UC credit limits may apply. Any or all of these ESL courses with #'s combined: maximum credit, 8 units.*

ESL 200#
ESL WRITING AND STRUCTURE **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English As A Second Language Placement Process or ESL 100 or equivalent with a grade of Credit or "C" or higher.
Students study the sentence in context. They learn to eliminate mechanical errors and faulty sentence structure from their writing. Students review grammatical structures and punctuation. They write original paragraphs based on personal experience and on ideas drawn from supplemental materials. (Formerly ESL 4.1)
*Transfer Credit: UC**
**UC credit limits may apply. Any or all of these ESL courses with #'s combined: maximum credit, 8 units.*

FINANCE
SEE BUSF

(Business Accounting / Finance)

FRENCH

(Liberal Arts Division)

FREN 101 (CAN FREN SEQ A)(CAN FREN 2)
ELEMENTARY FRENCH **5 UNITS**
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: None.
This beginning French course emphasizes listening, speaking, reading and writing and helps to develop the appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly FREN 1)
Transfer Credit: CSU; UC

FREN 102 (CAN FREN SEQ A)(CAN FREN 4)
ELEMENTARY FRENCH **5 UNITS**
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: FREN 101 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the study of the basic principles of French with an emphasis on oral and written communication. It helps continue to develop the appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly FREN 2)
Transfer Credit: CSU; UC

FREN 201 (CAN FREN 8) (CAN FREN SEQ B)
INTERMEDIATE FRENCH **5 UNITS**
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: FREN 102 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in-depth study of important grammatical concepts. Reading and interpretation of authentic literary works by French writers are included. Guided and original composition exercises will be assigned as a transition to free written expression. This class is conducted primarily in French. (Formerly FREN 3)
Transfer Credit: CSU; UC

FREN 202 (CAN FREN 10) (CAN FREN SEQ B)
INTERMEDIATE FRENCH **4 UNITS**
Class hours: 4 lecture
Prerequisite: FREN 201 or equivalent with a grade of Credit or "C" or higher.
This is a course in reading of modern French. Emphasis is placed on oral and written expression. Grammar review is completed. FREN 4 aims to give the student a working knowledge of the language and to form the basis for advanced work in literature or science. (Formerly FREN 4)
Transfer Credit: CSU; UC

FREN 203
INTERMEDIATE FRENCH
ADVANCED LEVEL 1 **4 UNITS**
Class hours: 4 lecture
Prerequisite: FREN 202 or equivalent with a grade of Credit or "C" or higher.
This course consists of selected intermediate readings in literary and technical French designed to meet requirements of students majoring in literature, science, mathematics and engineering with a minimum basic grammar review. (Formerly FREN 5)
Transfer Credit: CSU; UC

FREN 281
BEGINNING
CONVERSATIONAL FRENCH **3 UNITS**
Class hours: 3 lecture
Prerequisite: FREN 102 or equivalent with a grade of Credit or "C" or higher.
This course gives the student practice in speaking and understanding current French as used in travel, in the home, in school, in business and in everyday life. Emphasis is placed upon vocabulary, idioms, and language patterns fundamental to an active and practical use of French. This course is recommended for all French majors. (Formerly FREN 8.1)
Transfer Credit: CSU; UC

FREN 282
INTERMEDIATE
CONVERSATIONAL FRENCH **3 UNITS**
Class hours: 3 lecture
Prerequisite: FREN 281 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive oral practice in French in the discussion of social, current, and cultural affairs. Emphasis is on the acquisition of special idioms and vocabulary suitable to conversation about current affairs and personal values. This course is primarily conducted in French and is recommended for all French majors. (Formerly FREN 8.2)
Transfer Credit: CSU; UC

FREN 283
ADVANCED
CONVERSATIONAL FRENCH **3 UNITS**
Class hours: 3 lecture
Prerequisite: FREN 282 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive oral practice in discussion of controversial topics, expressing informed opinions regarding current affairs, the arts, and political issues. Emphasis is on creative development of arguments and analyses. Acquisition of appropriate vocabulary is stressed. This course, conducted completely in French, is recommended for all French majors. (Formerly FREN 8.3)
Transfer Credit: CSU; UC

GEOGRAPHY

(Science / Engineering / Math Division)

GEOG 101 (CAN GEOG 2)
PHYSICAL GEOGRAPHY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course covers the causes of variations in weather and climate; how landscapes develop; the use of maps or other tools of a geographer; and the effect of earth motions on the seasons, time, and climate. (Formerly GEOG 1)
Transfer Credit: CSU; UC

GEOG 102 (CAN GEOG 4)
NATURAL AND
CULTURAL GEOGRAPHY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of the influence of culture and the physical environment on man's activities in major world regions. An examination of the culture, settlement patterns, agriculture, commerce, natural resources and industry of each region will be made. In addition, world trends in population growth and urbanization will be studied. (Formerly GEOG 2)
Transfer Credit: CSU; UC

GEOG 105
WORLD REGIONAL
GEOGRAPHY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course investigates the major cultural and political regions of the world today. Emphasis is placed on cultural relationships, land use patterns, population distribution, trade and political alliances. (Formerly GEOG 5)
Transfer Credit: CSU; UC

GEOG 106
INTRODUCTION TO GEOGRAPHIC
INFORMATION SYSTEMS **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to Geographic Information Systems (GIS) technology, theory, and software applications. These systems allow organization and analysis of spatial data from a wide variety of academic and business areas. Students will work with data sets from a variety of disciplines, and will learn to retrieve, organize and interpret spatial data applicable to their major or career. (Formerly GEOG 10)
Transfer Credit: CSU; UC

GEOG 257
VIETNAM: COUNTRY AND WAR **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course examines the geographical and historical context of the United States' involvement in Vietnam. The course includes an investigation of the physical geography of Southeast Asia, a geographical study of the indigenous and colonial cultures found in the region, the geopolitical chain of events leading to the commitment of United States ground forces into the region, an examination of the conduct of the war, and an analysis of the legacies of the Vietnam era. This course is not open to students who are enrolled in or who have received credit for HIST 257. (Formerly GEOG 97.1/GEOG 16)
Transfer Credit: CSU; UC

GEOLOGY

(Science / Engineering / Math Division)

GEOL 100
NATURAL HISTORY
OF SO. CALIFORNIA **1 UNIT**
(Also listed as BIOL 100)
Class hours: Total of 9 hours lecture with the minimum equivalent of 4 one-day field trips.
Prerequisite: None.
This is a field trip and seminar class in biology and geology of selected areas in So. California. Minerals, geology, landforms, plants, animals, ecology, human use, and recreational value will be studied. This course may be taken for a maximum of 2 units. (Formerly GEOL 16)
Transfer Credit: CSU

GEOL 101 (CAN GEOL 2)
THE EARTH ENVIRONMENT **4 UNITS**
Class hours: 3 lecture, 3 lab and the equivalent of 3 one day field trips.
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or "C" or higher.
This introductory course deals with the composition and structure of the earth. Internal and external forces by which the earth's crust and surface have been and are being changed are emphasized. (Formerly GEOL 1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. GEOL 101 and GEOL 110 combined: maximum credit, one course.*

GEOL 110
INTRODUCTION TO GEOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or "C" or higher.
This course is a general survey of the fields of physical and historical geology. It is designed to give a broad general understanding and appreciation of the composition, structure, geologic processes, origin, and development of the earth and its inhabitants. Included is a present-day practical application of geologic knowledge. (Not open to those with credit in GEOL 101.) (Formerly GEOL 10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. GEOL 101 and GEOL 110 combined: maximum credit, one course.*

GEOL 201 (CAN GEOL 4)
EARTH HISTORY **4 UNITS**
Class hours: 3 lecture/3 lab (Spring only)
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or "C" or higher.
This course concerns the origin and geological history of the earth and the evolution of its plant and animal inhabitants. Laboratory work includes exercises in the study of the principal fossil life of geologic time and exercises in the interpretation of earth history. (Formerly GEOL 3)
Transfer Credit: CSU; UC

GEOL 204
GEOLOGY OF THE
WESTERN NATIONAL
PARKS AND MONUMENTS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or "C"or higher.
A study of the geologic processes which shaped selected national parks and monuments of Western North America. (Formerly GEOL 4)
Transfer Credit: CSU

GEOL 207
PALEONTOLOGY,
LIFE OF THE PAST **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the study of fossils. Fossil preservation, distribution and paleoecology are considered. Particular emphasis is placed on the fossil record as evidence of organic evolution on planet earth. Laboratory will include specimen identification. Two field trips are required. (Formerly GEOL 7)
Transfer Credit: CSU; UC

GEOL 209
EARTHQUAKES
AND VOLCANOES **4 UNITS**
Class hours: 3 lecture/3 lab and the equivalent of one field trip
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: MATH 60 or equivalent or satisfactory completion of the Math Placement Process.
Recommendation: None.
This course is an introduction to the study of earthquakes and volcanoes including how origins are explained by the theory of plate tectonics and how new knowledge can be applied to the betterment of human welfare. (Formerly GEOL 9)
Transfer Credit: CSU; UC

GERMAN

(Liberal Arts Division)

GERM 101 (CAN GERM SEQ A)(CAN GERM 2)
ELEMENTARY GERMAN **5 UNITS**
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: None.
This beginning course emphasizes listening, speaking, reading, and writing, and helps to develop an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly GERM 1)
Transfer Credit: CSU; UC

GERM 102 (CAN GERM SEQ A)(CAN GERM 4)
ELEMENTARY GERMAN **5 UNITS**
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: GERM 101 or equivalent with a grade of Credit or "C" or higher.
This course provides a continued review and in-depth study of grammatical concepts and reading and interpretation of literary works by writers of German-speaking countries. Guided and original compositions are included. This class, conducted primarily in German, will further develop the appreciation of cultural diversity. (Formerly GERM 2)
Transfer Credit: CSU; UC

GERM 201 (CAN GERM SEQ B)(CAN GERM 8)
INTERMEDIATE GERMAN **4 UNITS**
Class hours: 4 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in-depth study of grammatical concepts in the German Language. Reading and interpretation of literary works by German writers, and guided and original compositions are included. This course will further develop the appreciation of cultural diversity. This class is conducted primarily in German. (Formerly GERM 3)
Transfer Credit: CSU; UC

GERM 202 (CAN GERM SEQ B)(CAN GERM 10)
INTERMEDIATE GERMAN **4 UNITS**
Class hours: 4 lecture
Prerequisite: GERM 201 or equivalent with a grade of Credit or "C" or higher.
This course provides a continued review and in-depth study of grammatical concepts and reading and interpretation of literary works by writers of German-speaking countries. Guided and original compositions are included. This class, conducted primarily in German, will further develop the appreciation of cultural diversity. (Formerly GERM 4)
Transfer Credit: CSU; UC

GERM 203
SCIENTIFIC GERMAN **4 UNITS**
Class hours: 4 lecture
Prerequisite: GERM 202 or equivalent with a grade of Credit or "C" or higher.
This course provides a review of grammatical concepts in the German language and consists of selected intermediate readings of literary and technical German designed to meet requirements of students majoring in literature, science, mathematics and engineering. (Formerly GERM 5)
Transfer Credit: CSU; UC

GERM 204
SCIENTIFIC GERMAN **4 UNITS**
Class hours: 4 lecture
Prerequisite: GERM 203 or equivalent with a grade of Credit or "C" or higher.
This course consists of selected intermediate readings of popular appeal in scientific and technical German taken from texts published recently. It includes a basic grammar review. (Formerly GERM 6)
Transfer Credit: CSU; UC

GERM 281
BEGINNING
CONVERSATIONAL GERMAN **3 UNITS**
Class hours: 3 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
This course gives the student practice in speaking and understanding German as used in travel, in the home, in school, and in everyday life. Emphasis is placed on vocabulary, idioms, and language patterns fundamental to an active and practical use of German. This course is recommended for all German majors and develops the appreciation of cultural diversity. (Formerly GERM 8.1)
Transfer Credit: CSU; UC

GERM 282
INTERMEDIATE
CONVERSATIONAL GERMAN **3 UNITS**
Class hours: 3 lecture
Prerequisite: GERM 281 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive oral practice in the discussion of current topics, including multi-culturalism in German-speaking countries. Emphasis is on the acquisition of special idioms and vocabulary suitable for conversation about the family, the world of work, business, sports, public transportation and ecology. This course, conducted primarily in German, is recommended for all German majors. (Formerly GERM 8.2)
Transfer Credit: CSU; UC

GERM 283
ADVANCED
CONVERSATIONAL GERMAN **3 UNITS**
Class hours: 3 lecture
Prerequisite: GERM 282 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive oral practice in discussion of controversial topics, expressing informed opinions regarding current affairs, the arts and political issues. Emphasis is on the acquisition of appropriate vocabulary and language patterns, and the creative development of arguments. This course, conducted in German, is recommended for all German majors. (Formerly GERM 8.3)
Transfer Credit: CSU; UC

GERM 291
GERMAN FOR
INTERNATIONAL COMMERCE **3 UNITS**
Class hours: 3 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: GERM 201 or equivalent with a grade of Credit or "C" or higher.
This course will introduce students to the vocabulary used in German business and economy and will give insight into the customs used in the German business world where they differ from American customs. (Formerly GERM 9/GERM 9.1)
Transfer Credit: CSU

GERM 292
GERMAN FOR
INTERNATIONAL COMMERCE **3 UNITS**
Class hours: 3 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: GERM 201 or equivalent with a grade of Credit or "C" or higher.
This course will further introduce students to the vocabulary used in German business and economy and will give an insight into the customs used in the German business world where they differ from American customs. (Formerly GERM 69.5/GERM 9.2)
Transfer Credit: CSU

GRAPHIC DESIGN
SEE ART

(Art and Design)

HEALTH EDUCATION

(HPER / Athletics Division)

HED 100
CONTEMPORARY
HEALTH PROBLEMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Students will identify, analyze, and seek solutions to contemporary health issues. The learner will be exposed to such health components as improving nutrition and physical fitness, enhancing mental and emotional health, creating healthy and caring relationships, avoiding and overcoming destructive habits, preventing and fighting disease, and facing life's transitions. (Formerly HED 8)
Transfer Credit: CSU; UC

HED 103
WOMEN, THEIR
BODIES AND HEALTH **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will examine contemporary women's health issues and body image concerns. General topics will include images of women, lifespan changes, mental health, eating disorders, prevention of abuse and self-harm, social roles, sexual identity and sexuality, relationships, birth control and pregnancy. Current research on cardiovascular disease, cancer and other chronic conditions will be discussed as they pertain to women's issues. Students will develop the skills necessary to become wiser consumers of health and beauty-enhancing products. (This course is not open to students currently enrolled or who have completed WS 103)
Transfer Credit: CSU

HED 110
COMMUNITY
FIRST AID AND CPR **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course introduces the skills required to provide basic life support in an emergency illness or injury. The course includes adult, infant and child CPR and First Aid. Upon successful completion of all tests, students will be issued an American Red Cross card for Community First Aid (3 years) and CPR (1 year). (Formerly HED 9)
Transfer Credit: CSU; UC

HED 200
FOOD FOR FITNESS
AND PHYSICAL ACTIVITY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to the basic nutritional principles important to physically active individuals. Content will cover the role of food in enhancing exercise and sport performance, body composition, and energy production. Current research and practical activities will be presented. This course is especially applicable for individuals interested in careers related to fitness or athletics.
Transfer Credit: CSU; UC

HEALTH OCCUPATIONS

(Health Occupations Division)

HO 7 (Not degree applicable)
CARDIOPULMONARY
RESUSCITATION **0.5 UNITS**
Class hours: .50 lecture
Total semester hours: 9
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The Basic Life Support for Healthcare Provider course is designed to meet the needs of healthcare professionals who respond to cardiac and respiratory emergencies. Content includes initial management of cardiac arrest, respiratory arrest, and airway obstruction in the infant, child and adult populations as well as two rescuers CPR, and use of automated external defibrillator (AED). This course may be taken for a maximum of 2 units. This course is offered on a Credit/No Credit basis only.

HO 9 (Not degree applicable)
EMERGENCY
MEDICAL TECHNICIAN I **3 UNITS**
Class hours: 3 lecture
Prerequisite: Current CPR for Professional Rescuer Certification (minimum of 8 hours)
Corequisite: HO 9L.
This course teaches the student the basic knowledge, skills, and attitudes necessary to perform pre-hospital emergency care service. Three major modules will cover basic life support, evaluation for immediate care, and specialized medical problems. Students who are 18 years of age or older and have completed HO 9 and HO 9L are eligible for county testing for certification as an Emergency Medical Technician I. A Verification of Completion is awarded after successful completion of the written and practical examinations. This course may be taken for a maximum of 6 units.

HO 9L (Not degree applicable)
EMERGENCY MEDICAL
TECHNICIAN I LAB **2 UNITS**
Class hours: 3 lab and 3 hours arranged field experience.
Prerequisite: Completion of current immunization requirements for affiliating clinical agencies. Current CPR for Professional Rescuer Certification (minimum of 8 hours).
Corequisite: HO 9.
This course is designed to teach the student the practical skills necessary to perform prehospital emergency care service. Areas include assessment skills, equipment utilization, hospital and ambulance clinical experience. This course may be taken for a maximum of 4 units. Uniforms will be required. (Formerly HO 9.1)

HO 50
EMERGENCY AND
SAFETY MANAGEMENT **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course for allied health students will cover cardiopulmonary resuscitation and first aid techniques as specified by the American Red Cross. Topics will include one-and-two person CPR for infants, children, and adults; resuscitation with mask and bag-valve mask; and early intervention for wounds, burns, trauma and sudden illness. A Professional Rescuer CPR Card valid for one year and a Standard First Aid Certificate valid for three years will be earned with successful completion of the course. (Formerly HO 32)

HO 53
ELECTROCARDIOGRAPHY **1 UNIT**
Class hours: 2 lecture/3 lab (6 weeks)
Prerequisite: None.
Corequisite: Current CPR for Professional Rescuer Certification
Recommendation: None.
This course will provide the student with knowledge and skills concerning the theoretical and procedural requirements for performing electrocardiography. This course follows the guidelines set forth by both state and national regulations. This course is not open to students who have received credit for MA 43. (Formerly HO 10)

HO 54
MEDICAL LABORATORY SKILLS **1 UNIT**
Class hours: 2 lecture/3 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide the student with knowledge and skills concerning the theoretical and procedural requirements for performing several lab procedures. This course follows guidelines set forth by both state and national regulations including, but not limited to, the parameters of waived testing as set by CLIA (Clinical Laboratory Improvement Act of 1988.) This course is not open to students who have received credit for MA 43. (Formerly HO 11)

HO 55
PHLEBOTOMY PROCEDURES **1 UNIT**
Class hours: 2 lecture/3 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This class provides thirty hours of Phlebotomy training, in classroom instruction and hands-on application. Topics of instruction and testing include, but are not limited to the following: venipuncture and capillary puncture procedures, OSHA Bloodborne Pathogen Training, anatomy and physiology of the vascular system, patient care and special considerations, equipment selection, and blood processing. This course does not meet requirements for state certification for phlebotomist. (Formerly HO 12)

HO 56
MEDICATION CALCULATIONS **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: MATH 40 or equivalent with a grade of Credit or "C" or higher or successful completion of the Math Placement process.
This course presents skills and concepts utilized to calculate drug dosage. Problem solving, application of basic algebraic concepts, formulas, proportional relationships, systems of measurement, and measurement system conversions will be included. This course may be taken for a maximum of 2 units. (Formerly NRSG 4)

HO 100
HEALTH OF UNDER SERVED
AND LINGUISTIC MINORITY
COMMUNITIES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 and MATH 60 or equivalent with grades of Credit or "C" or higher.

By providing an overview of the dynamics and processes underlying the health profiles of Latinos/Latinas another underrepresented minorities in Los Angeles County, this class aims to transform the student's individual interest in health into a professional health career goal. Population projects, population characteristics, birth rates and outcomes, causes of death and death rates, patterns of reportable diseases, services utilization, patterns of immigration, health insurances, provider training, risk behaviors, and chronic diseases will be surveyed.
Transfer Credit: CSU

HO 151
ELEMENTS OF NUTRITION **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course is an introduction to the basic principles of nutrition. Course content includes daily nutrient requirements, life cycle needs, food selection and meal planning for health. Weight maintenance strategies and consumer information are included. This course is designed to meet the requirement for medical assisting and culinary arts' majors and also meets the minimum requirement for nursing majors. (Formerly HO 51)
Transfer Credit: CSU

HO 152 (CAN FCS 2)
NORMAL AND
THERAPEUTIC NUTRITION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: A&P 130 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to basic principles of normal and therapeutic nutrition. Emphasis is placed on nutritional requirements and food selection in health and disease. Course content includes life cycle needs, weight maintenance strategies and discussion of common medical disorders and their relation to diet. This course is designed to meet the requirement for dental hygiene and nursing majors. (Formerly HO 52)
Transfer Credit: CSU

HO 236
LIFE SPAN / HEALTH ISSUES 1 **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course presents an application of the concepts and principles of growth and development as they relate to the delivery of health care. Content includes discussion of health concerns and issues at various age levels. Emphasis will be placed upon physical, cognitive and psychosocial assessment of individuals from infancy through school-age. Not open to students who have received credit for HO 15.
Transfer Credit: CSU

HO 237
LIFE SPAN / HEALTH ISSUES 2 **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course presents an application of the concepts and principles of growth and development as they relate to the delivery of health care. Content includes discussion of health concerns and issues at various age levels. Emphasis will be placed upon physical, cognitive and psychosocial assessment of individuals from adolescence through older adulthood. Not open to student who have received credit for HO 15.
Transfer Credit: CSU

HISTORY

(Humanities / Social Sciences Division)

HIST 101
AMERICAN HISTORY
AND CONSTITUTION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or "C" or higher.
History 101 is a survey of the history of the United States from pre-colonial times to the present. Major political, social, economic, and cultural factors will be presented focusing on the roles played by the diverse peoples and cultures who shared in the development of United States history. An emphasis may be placed on one or more of these factors. (Formerly HIST 27)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 201, HIST 202 and HIST 101 combined: maximum credit, 2 courses.*

HIST 110
AFRICAN-AMERICAN HISTORY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or "C" or higher.
This course is a survey of the political, legal, economic, and social position and role of African-Americans in the history of the United States. Special emphasis will be given to the contributions of African-Americans in all aspects of American culture. (Formerly HIST 35)
Transfer Credit: CSU, UC

HIST 120
HISTORY OF CALIFORNIA **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or "C" or higher.
This course is an historical examination of the cultural, political, and economic forces that have shaped contemporary California. It focuses on the roles played by the diverse people who shared in its development from early Native American societies through the Spanish and Mexican periods and U.S. conquest to the present. (Formerly HIST 39)
Transfer Credit: CSU; UC

HIST 201 (CAN HIST SEQ B)(CAN HIST 8)
POLITICAL AND SOCIAL HISTORY
OF THE UNITED STATES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
A study of United States history tracing the development of American ideals and actions from the Pre-Revolutionary Period through the Civil War Era. Major political, social, economic, and cultural factors will be presented focusing on the roles played by the diverse peoples and cultures who shared in the development of United States history. An emphasis may be placed on one or more of these factors. (Formerly HIST 7.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 201, HIST 202 and HIST 101 combined: maximum credit, 2 courses.*

HIST 202 (CAN HIST SEQ B)(CAN HIST 10)
POLITICAL AND SOCIAL HISTORY OF THE UNITED STATES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
A survey of cultural, diplomatic, economic, ethnic, political and social trends in recent United States history from 1877 to the present, focusing on the roles played by the diverse peoples and cultures who shared in the development of the United States. An emphasis may be placed on one or more of these factors. (Formerly HIST 7.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 201, HIST 202 and HIST 101 combined: maximum credit, 2 courses. HIST 202 and HIST 210 combined: maximum credit, one course.*

HIST 210
HISTORY OF THE UNITED STATES IN THE POST WORLD WAR II ERA **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This lecture/discussion course examines and analyzes the development of the United States from 1945 to the present. Attention is given to the political, social, intellectual, cultural, and economic changes in American society. Included as areas of inquiry will be the impact of the Cold War on foreign and domestic policies and society; the effect of social protest movements on society; the interconnected influence of economic, demographic, and cultural changes on policy and society; the expansion and contraction of the social welfare state; the ways that the Vietnam conflict, emergence of multiculturalism, and the new environmentalism have shaped contemporary policy and attitudes, and the pervasive and lasting influence of mass culture, technology and media. (Formerly HIST 10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 202 and HIST 210 combined: maximum credit, one course.*

HIST 220
HISTORY OF THE AMERICAS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course covers the histories of Latin America, Canada, and the United States as an integrated whole. Emphasis is given to the Pre-Colombian setting, Native American heritage, the European conquest and legacy, distinctive colonial institutions, and the growth of independence movements. Major political, social, economic, and cultural factors will be presented focusing on the roles played by the diverse people and cultures who shared in the development of the nations of the Western hemisphere. (Formerly HIST 8.1)
Transfer Credit: CSU; UC

HIST 221
HISTORY OF THE AMERICAS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course is a study of the histories of the United States, Canada, and the nations of Latin America from the completion of the independence movements to the present. They are studied as an integrated whole focusing on the roles played by the diverse peoples and cultures who shaped their development. Major political, economic, social and cultural factors and issues are presented with emphasis given to emerging international relations within the Western Hemisphere during the nineteenth and twentieth centuries. (Formerly HIST 8.2)
Transfer Credit: CSU; UC

HIST 230
HISTORY OF MEXICO **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or "C" or higher.
This course is an examination of the origins and evolution of the cultural, social, economic and political institutions, trends, events, issues, and leading personalities of Mexican History from the Pre-Columbian period to contemporary society. (Formerly HIST 31)
Transfer Credit: CSU; UC

HIST 235
HISTORY OF LATIN AMERICA **3 UNITS**
Class hours: 3 lecture
Prerequisite; None.
Corequisite; None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course is a study of the history of Latin America from the development of pre-Columbian cultures to the present. The experiences of individual countries are studied as an integrated whole focusing on the roles played by the diverse peoples and cultures who shaped their development. Major political, economic, social and cultural factors and issues are presented.
Transfer Credit: CSU; UC

HIST 241 (CAN HIST SEQ A)
WESTERN CIVILIZATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 with a grade of Credit or "C" or higher.
Recommendation: Satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher.
History 241 is a survey of the development of Western Civilization from the pre-historic era through the mid-seventeenth century A.D. It focuses on the contributions to this development of ancient Sumer, Egypt, classical Greece, Rome, Christianity, Byzantium, Islam, the Middle Ages, the Renaissance, and the Reformation. It acquaints students with the basic institutions, personalities, documents, and writings of the Western world which have influenced contemporary events. (Formerly HIST 4.1, HIST 240)
Transfer Credit: CSU; UC

HIST 242 (CAN HIST SEQ A)
WESTERN CIVILIZATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 with a grade of Credit or "C" or higher.
Recommendation: Satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher.
History 242 is a survey course in the history of modern Europe and the Western world from

the mid-seventeenth century to the present. It emphasizes broad economic, social and changing political trends, with special attention given to the role of science, the arts and technology in creating the modern world. (Formerly HIST 4.2, HIST 241)
Transfer Credit: CSU; UC

HIST 245
WORLD CIVILIZATION
FROM ANTIQUITY TO 1500 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: READ 54 and ENGL 52 or equivalent with grades of Credit or "C" or higher.
This is a survey course of the roots and development of civilizations in Africa, the Americas, Asia, and Europe from the Neolithic Revolution until the age of European exploration of the Americas (1500). The civilizations of Ancient, Classical, Postclassical, and Early European periods will be studies, emphasizing interaction between civilizations and major cultures.
Transfer Credit: CSU;UC

HIST 246
WORLD CIVILIZATION
FROM 1500 TO THE PRESENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: READ 54 and ENGL 52 or equivalent with grades of Credit or "C" or higher.
This is a survey course of the origin of the modern world, tracing both regional histories and global interactions. The root and development of civilizations in Africa, the Americas, Asia, and Europe from the 1500's to the present day will be chronicled. Topics will include: the origins and the role of universal religions; the examination of political, social, and gender structures in relation to economic and demographic development; and the diffusion of culture and technology via migration, commerce and the expanse of empire.
Transfer Credit: CSU;UC

HIST 250
HISTORY OF ENGLAND,
GREAT BRITAIN AND
THE COMMONWEALTH 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
History 250 is a survey of the history and institutions of Britain, the British Empire and The Commonwealth from the Norman Conquest to the present. It will focus upon medieval and early modern England, the creation of the first and second British Empires, and upon the development of Britain's economic, political and social institutions since the Glorious Revolution. The evolution of The Commonwealth and developing relations with the United States will also be studied. This course is not open to students who have credit in both HIST 5.1 and HIST 5.2. (Formerly HIST 5)
Transfer Credit: CSU; UC

HIST 255
HISTORY OF RUSSIA
AND THE SOVIET UNION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course in the history of Russia encompasses a brief introduction to the political, social, economic, and cultural development of the Russians from earliest times to the present with an in-depth emphasis on the twentieth century. Special attention is given to the Bolshevik Revolution, the emergence of Soviet totalitarianism, the collapse of the Soviet Union, and the emergence of the new Russian Republic. (Formerly HIST 20)
Transfer Credit: CSU; UC

HIST 257
VIETNAM: COUNTRY AND WAR 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course examines the geographical and historical context of the United States' involvement in Vietnam. The course includes an investigation of the physical geography of Southeast Asia, a geographical study of the indigenous and colonial cultures found in the region, the geopolitical chain of events leading to the commitment of United States ground forces into the region, an examination of the conduct of the war, and an analysis of the legacies of the Vietnam era. This course is not open to students who are enrolled in or who have received credit for GEOG 257. (Formerly HIST 97.1/HIST 16)
Transfer Credit: CSU; UC

HIST 260
SURVEY OF THE
HISTORY OF ASIA 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or "C" or higher.
This course presents a general survey of the historical evolution of cultural, social, economic and political institutions and customs of the nations of Asia. The pre-19th Century sections of the course will emphasize institutions such as family, philosophies, religious viewpoints and life style. The post 18th Century periods will emphasize Western imperialism in Asia, nationalism, the independence movements, and the development of modern Asian states and societies. (Formerly HIST 18)
Transfer Credit: CSU; UC

HIST 265
SELECTED PROBLEMS
IN CONTEMPORARY
ASIAN HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or "C" or higher.
This course consists of a study of topical issues and problems concerning 20th century Asian history. Emphasis will be placed upon political, economic, social and cultural institutions, western imperialism, Asian nationalism, the emergence of modern Asian states, international relations, and contemporary Asian societies. (Formerly HIST 19)
Transfer Credit: CSU; UC

HIST 270
SPECIAL TOPICS IN HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will expand on subjects and themes introduced in the core history curriculum offerings. Each topic will focus on themes, perspectives and issues of special interest to students. The specific focus of a particular offering will be decided by the course instructor and announced in the Schedule of Classes. (Formerly HIST 50)
Transfer Credit: CSU; UC

HUMANITIES

(Fine Arts / Communications Division)

HUM 100
THE ART OF BEING HUMAN **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This is an introductory humanities course which considers the great works of humanity through the ages in painting, music, architecture, sculpture, dance, literature and philosophy as they relate to the universal problems of humankind and today's students. Everyone will be encouraged to develop his/her own doctrine of humanity. (Formerly HUM 1)
Transfer Credit: CSU; UC

HUM 103
HUMANITIES
THROUGH THE ARTS **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course is a survey of the human condition as seen through film, drama, music, literature, painting, sculpture and architecture with an emphasis on history, techniques, meaning and evaluation of individual works of western art. (Formerly HUM 3)
Transfer Credit: CSU

HUM 108
BLACK IMAGES IN
POPULAR CULTURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher, is strongly recommended.
This course surveys the depiction and development of images of Blacks and the stereotypes created in Western culture. The various means artists have used to counter those stereotypes by using techniques of resistance and counter narratives will be examined. Students will study fine art, comic books, comic strips, cartoons, advertising, literature, music, dance, theatre, cinema, broadcasting and television. This course is not open to students who are enrolled in or who have received credit in ART 108.
Transfer Credit: CSU; UC

HUM 109
GENDER AND
SEXUALITY IN ART **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 and READ 54 or equivalent with grades of Credit or "C" or higher, is strongly recommended.
This class will investigate the relationship between gender and sexuality through an examination of visual art, cinema, television, video, and advertising. Close attention will be given to how popular and artistic cultures shape identity and representation. This course is not open to students who are enrolled in or who have received credit in ART 109.
Transfer Credit: CSU; UC

HUMANITIES

(Humanities / Social Sciences Division)

HUM 105
ENCOUNTERS WITH
LIVING FAITHS **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course is a study about man's religious experience based on a series of encounters with men and women of four continents who are living their faiths now. It focuses on the meaning of religion for individual people. From Protestant churches of Indianapolis to the Zen monasteries of Japan, the course is concerned with looking beyond the splendid and the exotic and toward the meaning of religion for individual people. (Formerly HUM 5)
Transfer Credit: CSU

INDUSTRIAL ARTS

(Technology Division)

(FOR ADDITIONAL COURSES SEE ELECTRONICS, WOODWORKING MANUFACTURING TECHNOLOGIES, AUTOMOTIVE REPAIR, AND PLASTICS MANUFACTURING TECHNOLOGY)

IA 20 (Not degree applicable)
A SURVEY OF AUTOMATED
MANUFACTURING FOR
NON-TECHNICAL PERSONNEL
(ELEMENTARY ROBOTICS) **1 UNIT**
Class hours: 4 lecture (6 weeks)
Prerequisite: None
This course provides an overview of the current robotics industry, starting with a brief history and followed by a review of the basic terms used in the field. The robots are classified by geometry, power source, application, path control, and intelligence. The operation of different types of end effectors is covered, along with robot controllers and the basic system sensors. Programming techniques are covered.

INTERDISCIPLINARY STUDIES

(Humanities / Social Sciences Division)

INST 100
PRINCIPLES AND STRATEGIES
FOR PROBLEM SOLVING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite; None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Students will study problem-solving concepts and strategies from an interdisciplinary perspective needed to succeed as a lifelong learner. Various theories and models for learning and intellectual development of adults and college students will be addressed. Emphasis is placed on the application of metacognitive strategies and problem-solving concepts to issues and problems associated with mastering the college experience.
Transfer Credit: CSU

JAPANESE

(Liberal Arts Division)

JAPN 101
ELEMENTARY JAPANESE **5 UNITS**
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: None.
This beginning Japanese course emphasizes listening, reading, writing, and speaking and helps to develop the appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly JAPN 1)
Transfer Credit: CSU; UC

JAPN 102
ELEMENTARY JAPANESE **5 UNITS**
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: JAPN 101 or equivalent with a grade of Credit or "C" or higher.
This beginning course continues to emphasize listening, reading, and writing, and speaking and helps to continue to develop the cultural diversity through the study of differences and similarities between cultures. (Formerly JAPN 2)
Transfer Credit: CSU; UC

JAPN 201
INTERMEDIATE JAPANESE 5 UNITS
Class hours: 5 lecture, 1 lab
Prerequisite: JAPN 102 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in-depth study of Japanese grammatical concepts. Reading and interpretation of literary works by Japanese writers and guided and original compositions are included. This course will further develop the appreciation of cultural diversity. This class is primarily conducted in Japanese. (Formerly JAPN 3)
Transfer Credit: CSU; UC

JAPN 202
INTERMEDIATE JAPANESE 4 UNITS
Class hours: 4 lecture
Prerequisite: JAPN 201 or equivalent with a grade of Credit or "C" or higher.
This is a course with emphasis on reading modern Japanese. It continues the review of grammatical concepts, and requires written composition and oral discussion. This course, conducted primarily in Japanese, completes the study of all aspects of the Japanese language at the intermediate level. (Formerly JAPN 4)
Transfer Credit: CSU; UC

JAPN 281
BEGINNING
CONVERSATIONAL JAPANESE 3 UNITS
Class hours: 3 lecture
Prerequisite: JAPN 102 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course gives the student practice in speaking and understanding Japanese as used in travel, in the home, in school, and in everyday life. Emphasis is placed on vocabulary, idioms and language patterns fundamental to an active and practical use of Japanese. This course develops the appreciation of the Japanese culture. It is recommended for all Japanese majors. (Formerly JAPN 8.1)
Transfer Credit: CSU; UC

JAPN 282
INTERMEDIATE
CONVERSATIONAL JAPANESE 3 UNITS
Class hours: 3 lecture
Prerequisite: JAPN 281 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides intensive oral practice in the discussion of current topics, including multiculturalism in Japanese-speaking countries. Emphasis is on the acquisition of special idioms and vocabulary suitable for conversation about the family, the world of work, business, sports, public transportation and ecology. This course, conducted primarily in Japanese, is recommended for all Japanese majors. (Formerly JAPN 8.2)
Transfer Credit: CSU; UC

JAPN 283
ADVANCED
CONVERSATIONAL JAPANESE 3 UNITS
Class hours: 3 lecture
Prerequisite: JAPN 282 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides intensive oral practice in discussion of controversial topics and expressing informed opinions regarding current affairs, the arts, and political issues. Emphasis is on the acquisition of appropriate vocabulary and language patterns, and the creative development of arguments. This course, conducted in Japanese, is recommended for all Japanese majors. (Formerly JAPN 8.3)
Transfer Credit: CSU; UC

JOURNALISM

(Fine Arts / Communications Division)

JOUR 50L
EDITORIAL BOARD 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: JOUR 103 or JOUR 105 or JOUR 160L.
Limitation of enrollment: editors of campus media.
Recommendation: None.
This course focuses on leadership aspects using the school newspaper, the Talon Marks, and the school magazine, Wings, as practical laboratories. Enrollments are limited to those named to editor positions of these campus media. This course may be taken for a maximum of 3 units. (Formerly JOUR 59)

JOUR 100 (CAN JOUR 4)
MASS COMMUNICATIONS
AND SOCIETY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
This course examines the political, economic, cultural and behavioral impacts of mass media in national and international contexts. It analyzes the historical factors that have shaped the structures, practices and products of the mass media industries, and assesses contemporary trends in media-society relations. (Formerly JOUR 18)
Transfer Credit: CSU; UC

JOUR 101
BEGINNING NEWSWRITING
AND REPORTING 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and typing ability.
Corequisite: None.
This course focuses on the principles of newsgathering and newswriting, with emphasis on journalistic writing. Basic news story structure and development, news evaluation, newsgathering methods, interviewing, craftsmanship, and reporting techniques in general are explored. Newspaper and other news and information media are analyzed. The course is particularly recommended for English and communications majors and those planning careers in news media, public relations, communications, corporate communications and news and informational media. (Formerly JOUR 20)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. JOUR 101 and JOUR 201 combined: maximum credit, one course.*

JOUR 103
NEWSPAPER ARTICLE WRITING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: JOUR 101 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment, and satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course focuses on media article writing using the school newspaper, Talon Marks, as a practical laboratory. Student research, write, and edit articles for the school paper as they practice the skills of gathering information from a variety of sources, synthesizing a story and preparing it for dissemination to others. Ethics and legal aspects of communication are also covered. This course may be taken for a maximum of 8 units. Credit/No Credit option available for non-journalism majors. (Formerly JOUR 53)
Transfer Credit: CSU

JOUR 104
SUMMER NEWSPAPER ARTICLE WRITING **1 UNIT**
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: JOUR 101 and ENGL 52 or equivalent with grades of Credit or "C" or higher, or concurrent enrollment.
This course focuses on media article writing using the online school newspaper, talonmarks.com, as a practical laboratory during summer sessions. Students research, write and edit articles for the online school paper as they practice the skills of gathering information from a variety of sources. Students synthesize the stories and prepare them for dissemination. Ethical and legal aspects of communication are also covered. This course may be taken for a maximum of 4 units. (Formerly JOUR 54)
Transfer Credit: CSU

JOUR 105
NEWSPAPER PRODUCTION **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: ART 188 or CIS 205 or JOUR 120 or equivalent with a grade of Credit or "C" or higher.
This course uses desktop publishing. World Wide Web publishing and photojournalistic techniques for publishing of information. The school newspaper, Talon Marks, is used as a practical laboratory. Presentation of information in a visual form is emphasized. This course is for page designers, graphic artists, cartoonists and photographers. This course may be taken for a maximum of 8 units. Credit/No Credit option available for non-journalism majors. (Formerly JOUR 55)
Transfer Credit: CSU

JOUR 110
PRINCIPLES OF PUBLIC RELATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This class explores the basic theories and principles of communicating information and concepts. Emphasis is on techniques and methods, with attention given to identifying audiences, using public relations tools, planning public relations programs and campaigns, promoting favorable relations with various segments of the public, and dealing with problem solving. The effective use of public information, publicity, and advertising is covered. (Formerly JOUR 23)
Transfer Credit: CSU

JOUR 111
INTRODUCTION TO NEWSLETTERS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 or JOUR 101 or equivalent with a grade of Credit or "C" or higher.
This course focuses on the preparation of content for newsletters of all professions and special interests. Students will discuss news values in selecting and writing content, writing and editing techniques, and careers in newsletter journalism. Students will gain hands-on experience in choosing, writing and editing content for publication in preparation for the newsletter design.
Transfer Credit: CSU

JOUR 120
INTERNET FOR JOURNALISTS **2 UNITS**
Class hours: 2 lecture
Prerequisite: CIS 121 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will provide a basic introduction to resources found on the Internet and the World Wide Web. Students will access the Internet to research trends in media use of the World Wide Web and learn to create on-line news and journalistic web pages. This course may be taken for a maximum of 8 units. (Formerly JOUR 26)
Transfer Credit: CSU

JOUR 130
PHOTO JOURNALISM **3 UNITS**
Class hours: 3 lecture
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This course deals with the photographer as a journalist, focusing on theory and practice in press and publications photography, with an emphasis on using the camera as a reporting and communications tool. Topics include news and feature photography and photographic essays, including composition, impact, and creativity, for newspapers, magazines, Internet and other mass communications media. Students must have access to a 35 mm camera. This course is not open to students who are enrolled in or who have received credit in PHOT 130. (Formerly JOUR 32)
Transfer Credit: CSU

JOUR 160L
COLLEGE MAGAZINE PRODUCTION **1 UNIT**
Class hours: 3 lab
Prerequisite: JOUR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: JOUR 103 or JOUR 105.
This course offers study and practical experience in planning content and layout, and in editing the college magazine, Wings. It provides a format for the application of photojournalism and feature article writing skills. This course may be taken for a maximum of 8 units. (Formerly JOUR 60)
Transfer Credit: CSU

JOUR 170
BROADCAST NEWS **1 UNIT**
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: Concurrent enrollment or completion of JOUR 101 with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment or completion of JOUR 103 and/or concurrent enrollment or completion of TH 152.
This nine-week course focuses on broadcast newswriting and production techniques using the college radio station, WPMD, as a practical laboratory. Students will develop and research story ideas for regular news broadcasts on WPMD. Newsgathering and reporting for broadcast will be emphasized, along with ethics and legal aspects of communication. This course may be taken for a maximum of 4 units. (Formerly JOUR 70)
Transfer Credit: CSU

JOUR 171
OCCUPATIONAL WORK EXPERIENCE IN JOURNALISM **1 UNIT**
Class hours: 1 lecture
Prerequisite: JOUR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Journalism, in a declared Journalism major. One unit of Occupational Work Experience in Journalism requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the students/workers, the college, and the employers/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses

and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their approved projects are completed. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

JOUR 201
ADVANCED REPORTING AND EDITING 3 UNITS
Class hours: 3 lecture
Prerequisite: JOUR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This course covers advanced theory and practice in news writing and reporting with emphasis on handling of news, editing complex stories, copy reading, headline writing, opinion writing, news release writing, sports feature writing, news release writing, and writing news for World Wide Web presentation. (Formerly JOUR 21)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. JOUR 101 and JOUR 201 combined: maximum credit, one course.*

JOUR 220
FEATURE ARTICLE WRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher, and typing ability.
This course covers non-fiction writing for newspapers and magazines, including a study of story types, sources, methods, and markets. Individualized styles and approaches will be studied. (Formerly JOUR 22)
Transfer Credit: CSU

LIBRARY

(Learning Resource Center)

LIBR 100
INTRODUCTION TO LIBRARY RESOURCES 1 UNIT
Class hours: 1 lecture/1 lab arranged
Prerequisite: None.
This is an open-entry, open-exit, self-paced course which emphasizes the use of library methods and materials that will enable students to locate information for course-related study and research. This course is of special value to those students intending to transfer to four-year institutions. This course is to be offered on a credit/no credit basis. (Formerly LIBR 10)
Transfer Credit: CSU; UC

MACHINE TOOL TECHNOLOGY

(Technology Division)

MTT 1L (Not degree applicable)
NUMERICAL CONTROL SPECIALTY 1 UNIT
Class hours: 3 lab
Prerequisite: MTT 170 or equivalent with a grade of Credit or "C" or higher.
This course is an independent study on an experimental and research basis, using CAM software or CNC programming skill and knowledge in specialized areas of the student's choice with the approval and guidance of the department chairperson. The course may be taken for a maximum of 4 units. (Formerly CNC 46/MTT 46)

MTT 50
CNC SHOP MATH 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to teach the student how to solve typical and practical mathematical shop problems using a calculator and The Machinery's Handbook. Particular emphasis will be placed on solving problems of ratio and proportion, measurement system conversion, plane geometry, and right triangles as applied to machine fabricated parts. (Formerly CNC 9/MTT 9)

MTT 51
MASTERCAM INTRODUCTION 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: MTT 170 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course will prepare students to operate the MasterCAM Programming Systems in conjunction with various multi axis computer numerical control simulators. Students will learn to create and import CAD geometry, create proper job plans, and input the resultant data into virtual CNC machinery. (Formerly CNC 52/MTT 52)

MTT 52
SETUP AND OPERATION OF CNC MACHINERY 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course instructs in the safe and accurate setup and production operation of computer numerical control machining. Students will learn how to load programs, align fixtures, select offsets, and run first article parts. (Formerly CNC 17/MTT 17)

MTT 53L
MACHINIST LABORATORY 0.5 UNITS
Class hours: 4 lab (9 weeks)
Prerequisite: MTT 62 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed to apply acquired skills and knowledge in machining with the lathe, mill, drill press, grinder, and inspection devices and other machines and devices associated with the machine shop environment. (Formerly MTT 18)

MTT 54
CNC BLUEPRINT READING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 50 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed to familiarize the student with blueprints and the conversion of blueprint data to workable fabrication data unique to the CNC machine shop. It will cover tool offset conversion, location, and identification of missing and pertinent coordinates, ANSI Y-14.5, visualization, and identification of attributes important to CNC programming. (Formerly CNC 15/MTT 15)

MTT 55
SUPPLEMENTAL MACHINE SHOP STUDIES 2 UNITS
Class hours: 4 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to give the student machinist knowledge of blueprint reading, metallurgy, metrology, tooling, and use of the Machinery's Handbook. (Formerly MTT 19)

MTT 56
CNC SHOP INSPECTION 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 54 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This course is designed to give the student a complete understanding of metrology and to develop skills in using all of the instruments available in the shop for validation of part geometry. (Formerly CNC 7/MTT 7)

MTT 60
ADVANCED MACHINE TOOL CONCEPTS **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: MTT 100 or equivalent with grades of Credit or "C" or higher or equivalent.
This course is designed to extend the students' skills in modern machine tool operation and set up as well as to augment their knowledge of conventional and automated process techniques. Coursework includes refining complex geometric inspection techniques, developing advanced skills in lathe and mill setup, materials science, and learning Computer Aided Process Planning (CAPP). (Formerly CNC 3/MTT 3)

MTT 62
FIXTURE TOOLING **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: MTT 54 and MTT 60 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course teaches planning, design, and fabrication of fixturing for the CNC shop. It includes decision making, machine planning, cutter selection, tolerancing, rest areas, clamping, blueprint interpretation, and design. (Formerly CNC 5/MTT 5)

MTT 76
CAD/CAM VIRTUAL GIBB **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: MTT 170 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course prepares students to operate the Virtual Gibbs Programming System in conjunction with various multi-axis Computer Numerical Control (CNC) machinery. Students learn how to construct and import engineering geometry, to create tool paths, and to post process for specific machinery. (Formerly CNC 53/MTT 53)

MTT 80
CAD/CAM MOLD MACHINING **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: MTT 100 or equivalent with a grade of Credit or "C" or higher or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to instruct the student in the use of Computer Numerical Control (CNC) and Computer Aided Drafting/Computer Assisted Manufacturing (CAD/CAM) to produce various types of molds for the metal, packaging, sealing, plastic, forging, and diecasting industries. The students will create and verify toolpaths by using computer simulation and will then send the data to a CNC machine tool for fist article machining. (Formerly CNC 62/MTT 62)

MTT 100
MACHINE TOOL INTRODUCTION **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed as a survey of machine tool technology and introduction to computerized controls. It will include the computer as a control mechanism in the modern machine shop and also stress traditional machine tool technologies. It includes set-up and operation of basic machine tools, speeds and feeds, measurements, and introduction to the theory of computer numerical control. This course is required for Computer Numerical Control majors and other designated technology programs. (Formerly CNC 1/MTT 1)
Transfer Credit: CSU

MTT 170
COMPUTER NUMERICAL CONTROL PROGRAMMING **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: MTT 50 and MTT 100 or equivalent courses with grades of Credit or "C" or higher or concurrent enrollment, or appropriate work experience.
This course includes numerical control programming as applied to machine tools including a description of control systems and the capabilities of each. Students will develop CNC machine tool programs used to make manufactured parts. Computers will be used to input, develop and proof CNC programs. This course is for the student who desires to be a machine tool operator, programmer, or who will be employed in related fields. (Formerly CNC 11/MTT 11)
Transfer Credit: CSU

MTT 177
ADVANCED GIBBSCAM CAD/CAM **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: MTT 76 or equivalent with a grade of Credit or "C" or higher or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course prepares students to operate the GibbsCam Programming System in conjunction with various multi-axis Computer Numerical Control (CNC) machinery. Students learn how to construct and import 3D models and create surface and solid models from engineering geometry. Other topics include tool paths from 3D models, post processing data for specific CNC machinery, and mold cores and cavities.
Transfer Credit: CSU

MTT 278
MASTERCAM ADVANCED **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: MTT 51 with a grade of Credit or "C" or higher or appropriate work experience.
This course advances the student's skill in the development of 3D surface models , solids and tool paths using MasterCAM. Students learn to create swept, ruled, revolved, Coons, draft, trimmed, and lofted surfaces using parametric and NURBS methodology. Basic and advanced solids modeling is fully incorporated into this class. Modification of geometry/toolpath using parametric hooks will be emphasized. (Formerly CNC 55/MTT 55)
Transfer Credit: CSU

MANUFACTURING TECHNOLOGY

(Technology Division)

MFGT 50
HAZ-MAT **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a survey of the knowledge and skills that allow a person to work with hazardous materials in compliance with governmental regulations while at the same time to protect human health and the environment. Specific examples will include industry specific compliance, regulations, and controls. This includes an introduction to Material Safety Data Sheets (MSDS) and basic materials handling as is typical in local industries. (Formerly MFGT 12/MFGT 30)

MFGT 43/44 (Not degree applicable)
MANUFACTURING TECHNOLOGY OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Manufacturing Technology work experience 73 or 20 hours of employment per week for Manufacturing Technology work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Enrollment in the Manufacturing Technology vocational program with 7 or more units including occupational

work experience.
Work experience/career internship provides the opportunity for Manufacturing Technology students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly MFGT 73/74)

MFGT 51
INTRODUCTION TO COMPUTER INTEGRATED MANUFACTURING (CIM) **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course examines the relationships between management, design, and manufacturing of a product. Students will be introduced to the multi-faceted operations of the manufacturing industry. Case studies and demonstrations will be used to explore the development and implementation of an automated factory. This course is not open to students who have received credit in BCIS 46. (Formerly MFGT 46)

MFGT 52
INTRODUCTION TO LASER CUTTING TECHNOLOGY **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This introductory laser cutting technology class will cover a variety of subjects, starting with an explanation of the laser itself and its history. Discussions will be held on the interface of a laser with material movement system, the different types of systems in the field, and the process required to process materials. Demonstrations and visitation(s) to local industry sites are included. (Formerly MFGT 69.7/MFGT 50)

MFGT 53
STATISTICAL PROCESS CONTROL (SPC) **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: TM 50 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This technical course is for quality assurance personnel interested in applying statistical process control concepts. Materials covered include statistical methods for use in quantitative approaches to quality assurance and reliability including basic algebraic notation and formulation, functions, graphical analysis, probability laws, measures of central tendency and dispersion, frequency distributions, sampling plans and risks, control charts, and process capability studies. (Formerly MFGT 69.14/MFGT 14)

MFGT 54
ULTRASONIC LEVEL I TESTING **1.5 UNITS**
Class hours: 3.5 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with background knowledge in the operation of basic ultrasonic testing equipment. Skill development required in understanding and operating basic ultrasonic testing equipment for the inspection of composite and metallic components is emphasized. (Formerly MFGT 36)

MFGT 55
QUALITY CONTROL (QC) **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides basic and comprehensive details of quality control concepts for those new to or already in the manufacturing field. Areas covered include quality costs, product liability, reliability and acceptance sampling. Techniques of using production charts, graphs and tables are covered to emphasize quality improvement with manufacturing sampling. Actual case studies and current manufacturing quality issues and concerns will be studies. Related terms and methods of Quality Assurance (QA), Total Quality Management (TQM), International Standards Organization (ISO) 9000 quality standards, Statistical Process Control (SPC), just in time (JIT) as well as other quality tools will be outlined and identified. (Formerly MFGT 11)

MFGT 56
ISO 9000 QUALITY STANDARDS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course is a study of ISO 9000, the quality standard established by the International Standard Organization, as it applies to the manufacturing industry. Materials covered will include the ISO 9000 documents and selected references on the topic. Special emphasis will be placed on the advantages of implementing an ISO 9000 Quality System in an industrial manufacturing environment. (Formerly MFGT 12)

MFGT 57
TOTAL QUALITY MANAGEMENT (TQM) **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course examines the nature and application in manufacturing of Total Quality Management (TQM) in today's competitive environment. Students will be introduced to basic concepts of quality and why its philosophy of continuous improvement will provide the framework for production systems. The "team" approach to all facets in quality of production within industry is examined. (Formerly MFGT 13)

MFGT 58
BENCHMARKING **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course is for those interested in learning about Benchmarking as a strategic tool in manufacturing environment for continuous quality improvement. Topics will include a definition of Benchmarking, resources available to help in the manufacturing Benchmarking process, case studies and examples of companies that have used Benchmarking methods in production. (Formerly MFGT 15)

MFGT 59
DESIGN OF EXPERIMENTS (DOE) **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course is designed for manufacturing individuals interested or actively involved in designing and conducting experiments. The course will help production and engineering personnel analyze a process and determine process variables that effect product characteristics. The development of efficient and economical test methods will cause reduction in variations of a product or process thus improving the production efficiency. Emphasis will be place on Design of Experiments fundamentals. (Formerly MFGT 16)

MFGT 60
QUALITY ASSURANCE
PRINCIPLES **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an overview of quality control systems, organizational structure, quality costs, vendor relations, acceptance sampling, and customer relations. Emphasis will be placed on the importance of adequate product requirements. (Formerly MFGT 69.13/MFGT 10)

MFGT 100
MANUFACTURING PROCESSES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course provides information on modern manufacturing processes and operations including process materials currently used in industry. (Formerly IP 25/MFGT 5)
Transfer Credit: CSU

MATHEMATICS

(Science / Engineering / Math Division)

(FOR ADDITIONAL COURSES SEE TECHNICAL MATHEMATICS)

MATH 9T (Not degree applicable)
MATHEMATICS-TUTORIAL **0 UNIT**
Class hours: 2 lab
Open entry/open exit
Corequisite: Enrollment in any Mathematics course.
This course is designed to facilitate the learning of mathematical knowledge, skills, and concepts through individualized and mediated instruction. It is open to any student enrolled in any mathematics course. (Formerly MATH 99)

MATH 20 (Not degree applicable)
BASIC MATHEMATICS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course includes a review of the basic mathematics skills and fundamental operations as applied to whole numbers, common fractions, decimal fractions, percentage, and ratios. This course is offered on a Credit/No Credit basis. (Formerly MATH 50)
This class may be taken in Programmed Learning Sections. See your counselor for details.

MATH 20T (Not degree applicable)
INDIVIDUALIZED MATHEMATICS
FOR BASIC MATHEMATICS **0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: MATH 20
Recommendation: None.
This is an individualized math tutorial intended for students entering Basic Mathematics, MATH 20. This course will enable students to expand and improve the skills needed in MATH 20. Math assignments are selected according to a student's needs and learning style. Individualized math instruction will be delivered through computer assisted instruction, development of a personalized math study system for each student, individual tutoring, and meetings with the instructor to evaluate student progress.

MATH 40 (Not degree applicable)
PRE-ALGEBRA **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 20 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
This course covers topics in pre algebra, informal geometry, and applied arithmetic including but not limited to percent, rates, scientific notation, tables, graphs, the real number line, an introduction to the Cartesian Coordinate system, problem solving techniques, signed numbers, simplifying and evaluating expressions and formulas, solving simple equations, numerical relationships involving lines, angles and polygons. This course is offered on a Credit/No Credit basis.

MATH 40T
INDIVIDUALIZED MATHEMATICS
FOR SURVEY OF MATHEMATICS **0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: MATH 40
Recommendation: None.
This is an individualized math tutorial intended for students entering Survey of Mathematics, MATH 40. This course will enable students to expand and improve the skills needed in MATH 40. Math assignments are selected according to a student's needs and learning style. Individualized math instruction will be delivered through computer assisted instruction, development of a personalized math study system for each student, individual tutoring, and meetings with the instructor to evaluate student progress.

MATH 42 (Not degree applicable)
FOUNDATIONS IN
APPLIED MATHEMATICS **4 UNITS**
Class hours: 4 lecture/1 lab
Prerequisite: MATH 20 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
Corequisite: None.
Recommendation: None.
This course investigates topics in pre-algebra and informal geometry from an applications perspective. It emphasizes the use of calculators, problem solving techniques, measurement, formulas, graphs, charts and tables, data collection, probability and statistics, ratios and proportions, scale drawing, as they apply to various careers and technical occupations in business and industry. It will include hands-on lab activities. This course will satisfy the prerequisite for entry into MATH 60. (This course is not open to students with credit in MATH 40.)

MATH 60
ELEMENTARY ALGEBRA **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 40 or MATH 42 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
This course is designed for students with a deficiency in high school algebra. Topics included are: real numbers, polynomials, rational expressions, first-degree equations and inequalities, graphs of equations, linear systems of equations, exponents and radicals, and quadratic equations. (Formerly MATH 30)

MATH 60T
INDIVIDUALIZED MATHEMATICS
FOR ELEMENTARY ALGEBRA **0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: MATH 60
Recommendation: None.
This is an individualized math tutorial intended fro students entering Elementary Algebra, MATH 60. This course will enable students to expand and improve the skills needed in MATH 60. Math assignments are selected according to a student's needs and learning style. Individualized math instruction will be delivered through computer assisted instruction, development of a personalized math study system for each student, individual tutoring, and meetings with the instructor to evaluate student progress.

MATH 70
PLANE GEOMETRY 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 60 or equivalent with a grade of Credit or "C" or higher or a satisfactory score on Intermediate Algebra Readiness Test. May be taken concurrently with MATH 80, MATH 80A or MATH 80B.
This course includes the study of triangles, quadrilaterals, circles, parallels, and similar figures. Skill development involving equalities, proportions, and areas of the above figures is included. Logical thinking is stressed in problem solutions. This course is designed for students who have not taken high school plane geometry. (Formerly MATH 32)

MATH 80
INTERMEDIATE ALGEBRA 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 60 or equivalent with a grade of Credit or "C" or higher, or satisfactory completion of the Math Placement Process.
This course explores the representation of functions and relations as graphs, formulas, and tables. The types of functions studied will include linear, quadratic, polynomial, rational, exponential, and logarithmic. These functions will be used in solving a variety of equations, systems of equations and application problems. Other topics include: the algebra of real and complex numbers, inequalities, and an introduction to conic sections. (This course is not open to students with credit in MATH 80A or MATH 80B) (Formerly MATH 23)

MATH 80A
INTERMEDIATE ALGEBRA I 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 60 or equivalent with a grade of Credit or "C" or higher.
Students who have not taken MATH 60 must attain a satisfactory score on the Intermediate Algebra Readiness Test.
This course is the first half of Intermediate Algebra. Topics include: the real number system, linear and quadratic equations, inequalities, exponents and polynomials, rational expressions, rational exponents and radicals, and graphing linear equations. (Formerly MATH 23.1)

MATH 80B
INTERMEDIATE ALGEBRA II 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 80A or equivalent with a grade of Credit or "C" or higher.
This course is the second half of Intermediate Algebra. Topics include: systems of equations, relations and functions, exponential and logarithmic functions, conic sections, and sequences and series. (Formerly MATH 23.2)

MATH 80T
INDIVIDUALIZED MATHEMATICS FOR INTERMEDIATE ALGEBRA 0 UNIT
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: MATH 80
Recommendation: None.
This is an individualized math tutorial intended for students entering Intermediate Algebra, MATH 80. This course will enable students to expand and improve the skills needed in MATH 80. Math assignments are selected according to a student's needs and learning style. Individualized math instruction will be delivered through computer assisted instruction, development of a personalized math study system for each student, individual tutoring, and meetings with the instructor to evaluate student progress.

MATH 90A
TRAINING FOR TUTORS OF MATHEMATICS I 2 UNITS
Class hours: 2 lecture
Prerequisite: MATH 140 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in any mathematics course.
This course is intended to prepare students to be individual and/or group tutors and to be mentor tutors in a program of supervised mathematics tutoring. Course topics include an introduction to learning theory, communication skills useful to mathematics tutors, attitudinal and cognitive roadblocks to student learning, and student success strategies to assist tutees to improve their study habits and time management skills. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 4 units.

MATH 90B
TRAINING FOR TUTORS OF MATHEMATICS II 2 UNITS
Class hours 2 lecture
Prerequisite: MATH 90A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in any mathematics course.
This course is a continuation of MATH 90A. It prepares students to be individual and/or group tutors in mathematics and to be mentor tutors in a program of supervised mathematics tutoring. Students will focus on the methods of tutoring mathematics students enrolled in lower division mathematics courses. Course topics include tutoring responsibilities and ethics, principles of tutoring, appropriate tutoring techniques, and a discussion of common mathematical structures found in lower division mathematics courses. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 4 units.

MATH 100
LIBERAL ARTS MATHEMATICS 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 80 (or MATH 80B) and MATH 70 or equivalent with grades of Credit or "C" or higher.
This is a nontechnical course surveying a variety of concepts in mathematics. Topics will include: elementary logic, algebra of sets, rational and real numbers, informal geometry, elementary combinatorics and probability, and elementary statistics. It is not open to student with credit in any transfer level math course. (Formerly MATH 10)
Transfer Credit: CSU; UC

MATH 105
ACTIVITY-BASED PROBABILITY AND STATISTICS FOR ELEMENTARY AND MIDDLE SCHOOL TEACHERS 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: MATH 70, MATH 80 OR MATH 80B or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will emphasize activities-based explorations of randomization, data representation, measures of central tendency, and dispersion. Coursework includes combinations, basic probability, and analysis of experiments requiring hypothesizing, experimental design and data gathering. Algebraic thinking will be used throughout the course.
Transfer Credit: CSU

MATH 110A
MATHEMATICS FOR ELEMENTARY TEACHERS 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: MATH 80 (or MATH 80B) and MATH 70 or equivalent with grades of Credit or "C" or higher.
This course is an introduction to problem solving processes and strategies. Topics will include the development and analysis of the structure of and operations on the real number system and concept and process development using appropriate models, technology, manipulatives and activities. It meets elementary education credential requirements. It is not open for credit to math majors. (Formerly MATH 6/MATH 6.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 110A and MATH 110B combined: maximum credit, one course.*

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

MATH 110B
MATHEMATICS FOR ELEMENTARY TEACHERS **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: MATH 110A or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of MATH 110A. Emphasis will be problem solving with a focus on making tables and patterning, informal geometry, congruence similarity, constructions, transformations, tessellations, and measurement involving both English and Metric units in 1, 2, and 3 dimensions. Computer explorations will be integrated into the course. The course will also emphasize hands-on modeling of real-world geometric situations. It meets elementary education credential requirements. It is not open for credit to math majors. (Formerly MATH 6.2)
*Transfer Credit: CSU, UC**
**UC credit limits may apply. MATH 110A and MATH 110B combined: maximum credit, one course.*

MATH 112 (CAN STAT 2)
ELEMENTARY STATISTICS **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit of "C" or higher or satisfactory completion of the Math Placement Process.
This course provides an introduction to descriptive and inferential statistics. Topics included are mean, standard deviation, variance, probability, random variables, binomial probability distribution, normal probability distribution, central limit theorem, testing hypotheses, confidence intervals, t-distribution, chi-square distribution, F-distribution, linear regression, and linear correlation. This course is a beginning statistics course designed for all majors. A graphing calculator is required. (Formerly MATH 12)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 112 combined with PSYC 210: maximum credit, one course.*

MATH 114
COLLEGE ALGEBRA **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or "C" or higher.
This course is designed for students majoring in life or social sciences. The main topics to be covered include linear and quadratic equations and inequalities, polynomial, rational, exponential, and logarithmic functions and their graphs, systems of linear equations, matrices, sequences and series, combinatorics, and the Binomial Theorem. (Formerly MATH 17)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 150 and MATH 114 combined: maximum credit, one course.*

MATH 115 (CAN MATH 12)
FINITE MATHEMATICS **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or "C" or higher. Students who have not taken MATH 80 or MATH 80B must attain a satisfactory score on the Advanced Math Readiness Test.
This course includes sets, matrices, system of equations and inequities, linear programming, permutations and combinations probability and topics from statistics. Applications of various topics from business, social and behavioral sciences are included. (Formerly MATH 15)
Transfer Credit: CSU; UC

MATH 116 (CAN MATH 34)
CALCULUS FOR MANAGERIAL, BIOLOGICAL AND SOCIAL SCIENCES **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 114 or equivalent with a grade of Credit or "C" or higher.
This course is a survey of calculus designed to meet lower division university and four- year college requirements for the management, biology or social science major student. Topics included are differentiation and integration of algebraic, logarithmic and exponential functions of single and multi-variables, related rates, areas, and curve sketching. This course is not open to students with credit in MATH 170. The class does not meet the prerequisite for Mathematics 190. (Formerly MATH 16)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 170 and MATH 116 combined: maximum credit, one course.*

MATH 140
TRIGONOMETRY **3 UNITS**
Class hours: 3 lecture
Prerequisite: MATH 80 (or MATH 80B) and MATH 70 or equivalent with grades of Credit or "C" or higher. Students who have not taken MATH 80 or MATH 80B must attain a satisfactory score on the Advanced Math Readiness Test.
This course includes circular functions, inverses, graphs, angles and trigonometric functions, solutions of right and oblique triangles, identities, solution of equations, and complex numbers. (Formerly MATH 21)
This class may be taken in Programmed Learning Sections. See your counselor for details.
Transfer Credit: CSU

MATH 150 (CAN MATH 16)
PRECALCULUS MATHEMATICS **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 140 or equivalent with a grade of Credit or "C" or higher.
Entering students must attain a satisfactory score on the Calculus Readiness Test.
This course is a critical study of the algebra of real and complex numbers which includes selected topics such as the number system, inequalities, and the binomial theorem, sets, matrices, sequences and series. Exponential, logarithmic, polynomial and inverse functions are included. (Formerly MATH 5.1/MATH 101)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 150 and MATH 114 combined: maximum credit, one course.*

MATH 150A
COMPUTER APPLICATIONS FOR PRECALCULUS **1 UNIT**
Class hours: 3 lab
Prerequisite: MATH 150 or equivalent with a grade of Credit or "C" or higher, or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This course is an introduction to modern mathematical software commonly used in universities and industry. The topics will be specifically selected to enhance and augment MATH 150 Precalculus Mathematics course using the powerful numeric, symbolic, and graphical capabilities of the mathematical software and will better prepare students for calculus. (Formerly MATH 75.1)
Transfer Credit: CSU

MATH 170 (CAN MATH SEQ B)(CAN MATH 18)
ANALYTIC GEOMETRY AND CALCULUS I **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 150 or equivalent with a grade of Credit or "C" or higher.
Students who have not taken MATH 150 must attain a satisfactory score on the Calculus Readiness Test.
This course is the first semester of calculus, designed to meet lower division university and four-year college requirements. Topics

included are differentiation and integration of algebraic, and trigonometric functions with applications. The necessary topics of analytic geometry are presented as needed to proceed with the principles of calculus. (Formerly MATH 5.2/MATH 102)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 170 and MATH 116 combined: maximum credit, one course.*

MATH 170A
COMPUTER APPLICATIONS FOR CALCULUS I **1 UNIT**
Class hours: 3 lab
Prerequisite: MATH 170 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This course is an introduction to modern mathematical software as used in most universities and in industrial applications where scientific research is commonplace. The topics will be specifically selected to enhance Calculus I using the powerful numeric, symbolic and graphical capabilities of mathematical software that is currently available. (Formerly MATH 75.2)
Transfer Credit: CSU

MATH 190 (CAN MATH SEQ B)(CAN MATH 20)
ANALYTIC GEOMETRY AND CALCULUS II **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 170 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of MATH 170. Topics include analytic geometry of the plane, differentiation and integration of trigonometric, logarithmic, and exponential functions, techniques of integration with applications, sequences, series, and improper integrals. (Formerly MATH 5.3/MATH 103)
Transfer Credit: CSU; UC

MATH 190A
COMPUTER APPLICATIONS FOR CALCULUS II **1 UNIT**
Class hours 3 lab
Prerequisite: MATH 190 or equivalent with a grade of Credit or "C" or higher, or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This course is an introduction to modern mathematical software commonly used in universities and industry. The topics will be specifically selected to enhance Calculus II using the powerful numeric, symbolic, and graphical capabilities of the mathematical software. (Formerly MATH 75.3)
Transfer Credit: CSU

MATH 220 (CAN MATH 22)
ANALYTIC GEOMETRY AND CALCULUS III **4 UNITS**
Class hours: 4 lecture
Prerequisite: MATH 190 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of Math 190. Topics include vectors and vector calculus, solid analytic geometry, functions of two or more variables, partial derivatives and multiple integration. (Formerly MATH 5.4)
Transfer Credit: CSU; UC

MATH 240 (CAN MATH 24)
CALCULUS AND DIFFERENTIAL EQUATIONS **4 UNITS**
Class hours: 4 lecture (Spring only)
Prerequisite: MATH 190 or equivalent with a grade of Credit or "C" or higher.
Recommendation: MATH 220 or equivalent with a grade of Credit or "C" or higher.
Topics in the course are standard methods of solving ordinary linear differential equations with applications. Laplace transforms including techniques of solving differential equations with Laplace transforms, matrices, and determinants including solving systems of linear equations with the Gauss elimination technique and Cramer's Rule. This course is designed for engineering majors. (Formerly MATH 5.5)
Transfer Credit: CSU; UC

MEDICAL ASSISTANT

(Health Occupations Division)

MA 60
INTRODUCTION TO MEDICAL ASSISTING **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This is an introductory course to study the history of medicine and paramedical professions. Generalized and specialized careers in medical assisting, personal and professional responsibilities, medical ethics and law, communications and records are discussed. The focus is on front office responsibilities, customer service philosophy, and basic communication skills. (Formerly MA 40)

MA 62
MEDICAL INSURANCE AND LIABILITY **3 UNITS**
Class hours: 3 lecture.
Prerequisite: None.
Recommendation: MA 161 or equivalent with a grade of Credit or "C" or higher.
This course presents principles of insurance, general health and accident insurance programs and billing procedures, (ICD-9-CM, CPT) government medical care programs with specialized billing procedures, role of the insurance officer, and aspects of related medical professional liability. (Formerly MA 42)

MA 64
MEDICAL OFFICE ASSISTING **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course includes instruction in developing skills and techniques in the assisting of physical examinations, naming, care and setting-up of instruments, sterilization, and operating room procedures. (Formerly MA 44)

MA 66
MEDICATIONS AND SPECIALITIES **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course prepares the student to prepare and administer medications, maintain narcotic control records, and assist the specialist with examinations. This course meets the requirements as set forth in the laws relating to the utilization of medical assistants within the Medical Practice Act. (Formerly MA 46)

MA 67
MEDICAL OFFICE ADMINISTRATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: MA 60, BASS 62, and BASS 3T, or equivalent with grades of Credit or "C"or higher.
This course is designed to develop skills in administrative procedures in the medical office. Topics include telecommunications; bookkeeping, billing and collections; payroll; policy and procedure development; medical records; verbal and written communication for the medical office; counseling employees, and additional office management techniques. Focus is placed on the manager's perspective. (Formerly MA 47)

MA 68
MEDICAL ASSISTING INTERNSHIP EXPERIENCE **4 UNITS**
Class hours: 1 lecture/180 variable semester hours
Prerequisite: MA 60, 62, 64, 161, HO 53, 54 and HO 55 or equivalent with grades of Credit or "C" or higher. Valid certification for cardiopulmonary resuscitation and American Red Cross first aid training (9 hour course) or HO 50. Completion of current immunization requirements for affiliating clinical agencies.
Corequisite: MA 66 or prior completion with a grade of Credit or "C" or higher.
This course is designed to provide opportuni-

ties for the student to intern a medical facility while receiving supervised instruction in direct patient care. (Formerly MA 48)

MA 73/74
MEDICAL ASSISTANT OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Medical Assistant work experience 73 or 20 hours of employment per week for Medical Assistant work experience 74. The employment must be in a job related to the student's educational goal.
Prerequisite: None.
Corequisite: (1) Enrollment in the Medical Assistant vocational program with 7 or more units including occupational work experience.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job.

MA 161
MEDICAL TERMINOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course will prepare the student in the correct use of medical terms, abbreviations, phraseology, and the understanding of word parts. It will include analyzing the terms by written and oral communication of the various systems of the body. (Formerly MA 41)
Transfer Credit: CSU

METALLURGY AND MATERIALS SCIENCE

(Technology Division)

MET 50
NONFERROUS HEAT TREAT **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Recommendation: MET 100A or equivalent with a grade of Credit or "C" or higher.
This course will cover the effects of heat treating related to the mechanical and physical properties of non-ferrous metals. Techniques, processes and equipment used in the industrial heat treating facility; relationship of metallic phases and precipitation hardening will be emphasized. In addition theory and application of thermocouples in pyrometry, photomicrography and photomacrography of the effects of heat treatment on microstructures are included. (Formerly MET 42.2/MET 42)

MET 50A
HEAT TREATING FERROUS MATERIALS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: MET 100A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will include select heat treat specifications for the processing of ferrous materials to meet ARP 1962 requirements for heat treating. The course will cover the following: MIL-Q9895, MIL-Std 1535, MIL-H-6875, AMS 2759, MIL-S-6090, and MIL-Std 12515. (Formerly MET 42.3)

MET 51
WELDING METALLURGY **2 UNITS**
Class hours: 4 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: WELD 100 or equivalent or employment in the metal joining industries.
This course is an introduction to the study of metals with an emphasis on the effects of welding on metals. The course is applicable for those students seeking a career in welding inspection. The structure of matter, chemical, physical, and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation, and heat treatment will be studied. The course will include demonstrations and exercises in the use of metallurgical testing equipment and tools found in the industry. (Formerly MET 48)

MET 52L
METALLURGY SPECIALTY LAB **0.5 UNITS**
Class hours: 3 lab (9 weeks)
Prerequisite: Concurrent enrollment in or completion of MET 100A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a lab course to complement other courses in the metallurgy curriculum. It is designed to give the student practical laboratory experience in working with ferrous and nonferrous metals. This course may be taken for a maximum of 2 units. (Formerly MET 19)

MET 53
FERROUS METALLURGY **3 UNITS**
Class hours: 2.5 lecture/1.5 lab
Prerequisite: MET 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is the study of the entire spectrum of steel and alloy steels. Theory and application in the fields of automotive, construction, aircraft metals, manufacturing and their processes will be covered. In addition, high temperature, heat resistant, corrosion resisting, stainless steel, specialty steels and tool steel will be discussed. The course will also cover testing methods such as metallurgical processing affecting microstructure, physical and mechanical properties including selection of steel types for specific applications, toughness, hardness, strength and heat treatment. (Formerly MET 12)

MET 54
NONFERROUS METALLURGY **3 UNITS**
Class hours: 2.5 lecture/1.5 lab
Prerequisite: MET 100A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is the study of nonferrous metals and alloys. Theory and applications in the field of automotive, corrosion, manufacturing and aircraft metals and their processes will be covered. Materials covered will include titanium, aluminum, brass, bronze, copper, zinc, tin, lead, magnesium, tantalum, tungsten, niobium, molybdenum, platinum, gold and silver. Emphasis will be placed on the study of properties, fabrication, testing, castings, forgings, powder metals and the unique applications of each material. The metallurgical characteristics and selection of nonferrous types for specific applications will be emphasized. (Formerly MET 22)

MET 55
LABORATORY PROCEDURES **1 UNIT**
Class hours: 2 lecture/2 lab (9 weeks)
Prerequisite: MET 100A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course will provide instruction in the elements of laboratory procedures of metals. Instruction will include the laboratory procedures used to determine the interpretive concepts of the quality and properties of metals and their alloys, with emphasis placed on the proper use and care of laboratory equipment, hardness testers, abrasive cut-off wheels, mounting presses, tensile testers and polishing equipment used in industry. (Formerly MET 31)

MET 56
SURVEY OF NONFERROUS HEAT TREAT **1.5 UNITS**
Class hours: 3 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.

Recommendation: None.
This course introduces the student to the effects of heat treating as related to the mechanical and physical properties of nonferrous metals. Laboratory testing, including the techniques, processes and equipment used in the industrial heat treating facility, relationship of metallic phases, and precipitation hardening will be emphasized. Theory and application of photomicrography, photomacrography, and the effects of heat treatment on microstructures are included. (Formerly MET 41)

MET 61
RADIOGRAPHY LEVEL I TESTING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with background knowledge in the theory and demonstration of basic radiography testing equipment. Skill development required in understanding and operating basic radiography testing equipment for the inspection of composite and metallic components is emphasized.

MET 73/74
METALLURGY OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Metallurgy work experience 73 or 20 hours of employment per week for Metallurgy work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Enrollment in the Metallurgy vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Metallurgy students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units.

MET 100A
METALLURGY I 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
This course is an introduction to the study of metals and non-metals; structure of matter; chemical, physical and mechanical properties of metals and alloys; and non-metals including polymers, ceramics and composite materials. Principles of alloying, solid state allotropy, plastic deformation and heat treatment will also be studied. The course will also include demonstrations and laboratory practice in the use of metallurgical testing equipment commonly used in industry. (Formerly MET 10)
Transfer Credit: CSU

MET 100B
METALLURGY II 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MET 100A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further student's skills in the study of the select spectrum of ferrous and nonferrous alloys, such as steel, steel alloys, copper alloys, nickel alloys, titanium and aluminum. Emphasis will be placed on the application of metallurgy principles, properties and laboratory practices. (Formerly MET 12)

MET 120
NON-DESTRUCTIVE TESTING 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
This is a survey course designed to familiarize the student with nondestructive testing theory and applications. The major emphasis is on the "basic five" nondestructive testing methods: liquid penetrant, magnetic particle, radiographic, ultrasonic, and eddy current. Students will learn to use these methods and to evaluate available NDT methods as they apply to quality control. (Formerly MET 38)
Transfer Credit: CSU

MET 130A
HEAT TREATMENT OF IRON AND STEEL 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: MET 100A or equivalent with a grade of Credit or "C" or higher.
Effects of heat treating on mechanical and physical properties of ferrous metals will be covered. Techniques, processes and equipment used in the industrial heat treating facility are included in this course. Processes and effects of specialized surface treatments, theory and application of thermocouples in pyrometry, photomicrography and photomacrography of the effects of heat treatment on microstructures are all part of lecture and lab assignments. (Formerly MET 42/MET 42.1).
Transfer Credit: CSU

MICROBIOLOGY

(Science / Engineering / Math Division)

MICR 200 (CAN BIOL 14)
PRINCIPLES AND APPLICATIONS OF MICROBIOLOGY 5 UNITS
Class hours: 3 lecture/6 lab
Prerequisite: CHEM 100 or BIOL 120 or ZOOL 120 or equivalent with grades of Credit or "C" or higher.
Through lecture and laboratory exercises, this course provides an introduction to the microbial world. Emphasis is on microbial structure, microbial genetics, host-microbe interactions, the immune response, and disease control/prevention. Current issues in acquired immuno deficiency syndrome research and recombinant deoxyribonucleic acid technology are discussed. Laboratory exercises will emphasize microbial morphology and identification through microscopic observation and biochemical testing. This course satisfies the requirements of majors in two and four-year nursing programs, dental hygiene, and is recommended for pre-professional biology majors. (Formerly MICR 1)
Transfer Credit: CSU; UC

MULTIMEDIA

SEE ART
(Art and Design)

MUSIC

(Fine Arts / Communications Division)

HISTORY AND APPRECIATION

MUS 100
MUSIC APPRECIATION 3 UNITS
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course is an introductory survey of Western Art music from the Middle Ages to the present. Emphasis is on the historical, aesthetic, and cultural contexts from which music arises. (Formerly MUS 7)
Transfer Credit: CSU; UC

MUS 101
INTRODUCTION TO WORLD MUSIC **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to world music. Emphasis is placed on understanding the substantive features of music as well as social, cultural, political, and economic factors that contribute to different musical traditions found throughout the world.
Transfer Credit: CSU;UC

MUS 102
LATINO MUSIC **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course offers students a historical and philosophical survey of Latino music. Musical expression will be discussed in terms of folk/ethnic, popular and classical art forms. The cross-hybridization of musical styles will be addressed with respect to musical forms from Mexico, Cuba, Puerto Rico, and the Dominican Republic. The state of music among Latino populations in the United States also will be included. (Formerly MUS 97.1/MUS 3)
Transfer Credit: CSU

MUS 103
JAZZ IN AMERICA **3 UNITS**
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course is an introduction to jazz, its historical background and its development in the United States. (Formerly MUS 4)
Transfer Credit: CSU; UC

MUS 104
AMERICAN POPULAR MUSIC **3 UNITS**
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course is a survey of the history and characteristics of the music developed in or for general American culture and various subcultures from the Revolutionary Period to the present. It includes folk music, blues, Swing-era music, rock 'n' roll, and rock. (Formerly MUS 5)
Transfer Credit: CSU; UC

MUS 104B
HISTORY OF ROCK MUSIC **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to rock and its influence on American popular music. The students will learn how to actively engage with music by relating rock to other styles of music, relating music to text, and relating rock to its cultural context.
Transfer Credit: CSU;UC

THEORY

MUS 105
MUSIC FUNDAMENTALS **3 UNITS**
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course provides the fundamentals of notation, meter, rhythm, intervals, and key signatures, so that the student can gain a sensitivity to, and understanding of, music past, present, and future. (Formerly MUS 10)
Transfer Credit: CSU; UC

MUS 106
MUSIC THEORY / MUSICIANSHIP I **5 UNITS**
Class hours: 5 lecture, plus 2 hours lab arranged
Prerequisite: MUS 105 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This is a basic course in music theory and musicianship. Orientation is given in the basic elements of major and minor harmony, intervals, keys, triads, voice leading, non-harmonic tones, and seventh chords. Sight singing, ear training, keyboard harmony, melodic dictation, computer music software, computer literacy for musicians, and notation software will also be studied. (Formerly MUS 11)
Transfer Credit: CSU; UC

MUS 107
MUSIC THEORY / MUSICIANSHIP II **5 UNITS**
Class hours: 5 lecture, plus 2 hour lab arranged
Prerequisite: MUS 106 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This is a course in music theory and musicianship dealing with Baroque and Classical harmony. Orientation is given in advanced four-part chorale writing, primary and secondary triads, modulation, inversion, dominant 7ths, and non-dominant seventh chords. Other topics to be covered are intermediate keyboard harmony and dictation, intermediate sight singing, chordal identification, diatonic scale degrees, and chordal dictation. There will be the continuing study and usage of music software, rhythm machines, and computer based notation programs. (Formerly MUS 12)
Transfer Credit: CSU; UC

MUS 108
MUSIC THEORY / MUSICIANSHIP III **5 UNITS**
Class hours: 5 lecture, plus 2 hour lab arranged
Prerequisite: MUS 107 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This is a course in music theory and musicianship dealing with Classical and Romantic harmony. Attention is given in advanced four-part chorale writing, piano style writing, secondary triads, advanced modulation, inversion, dominant 7ths, non-dominant seventh chords, ninth chords, eleventh chords, and thirteenth chords. Other topics to be covered are advanced keyboard harmony and dictation, advanced chromatic scale degrees, and chordal dictation involving secondary dominants. There will be the continuing study and usage of music software, rhythm machines, and computer-based notation programs. (Formerly MUS 13)
Transfer Credit: CSU; UC

MUS 109
MUSIC THEORY / MUSICIANSHIP IV **5 UNITS**
Class hours: 5 lecture, plus 2 hour lab arranged
Prerequisite: MUS 108 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This is a course in music theory and musicianship dealing with Romantic and 20th century harmony. Orientation is given in piano style writing, all chromatically altered chords, advanced modulation, inversion, non-dominant seventh chords, half and fully diminished 7th chords, whole tone harmony, and elements of late Romanticism, Impressionism and the 20th century. Other topics to be covered are advanced keyboard harmony and dictation, advanced sight singing, advanced chordal identification, diatonic and chromatic scale degrees, and chordal dictation involving secondary dominants and chromaticism. There will be the continuing study and usage of music software, rhythm machines, and computer-based notation programs. (Formerly MUS 14/MUS 110)
Transfer Credit: CSU; UC

MUS 144
ELECTRONIC SYNTHESIZER I 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This class is an introduction to MIDI, synthesizer programming, sampling, computer sequencing, drum machine technique, and computer composition. Also, the course introduces the basics of acoustics and the physical properties of sound. Compositions will be required of all students. Individual studio time is provided. This course may be taken for a maximum of 4 units. (Formerly MUS 22)
Transfer Credit: CSU

MUS 145
ELECTRONIC SYNTHESIZER II 1 UNIT
Class hours: 1 lecture/2 lab, plus 4 hours arranged.
Prerequisite: MUS 144 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of tape studio practices, digital recording, synthesizer performance, and computer based recording and processing. This course may be taken for a maximum of 2 units. (Formerly MUS 23)
Transfer Credit: CSU

MUS 146
RECORDING TECHNIQUES 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Recommendation: MUS 105 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the methods of audio recording for the performing arts. It includes the technical, as well as the artistic, aspects of recording. Emphasis will be placed on the practical use of audio equipment both in a studio situation and on location. This course may be taken for a maximum of 8 units. (Formerly MUS 24)
Transfer Credit: CSU

MUS 171
OCCUPATIONAL
WORK EXPERIENCE IN MUSIC 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Music, in a declared Music major. One unit of Occupational Work Experience in Music requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the students/workers, the college, and the employers/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their approved projects are completed. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

MUS 244
DIGITAL AUDIO
POST PRODUCTION 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: MUS 144 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course covers the assembly of various audio elements (dialog, music and effects) into a play list for synchronization to picture. Non-linear digital video editing systems will be utilized to create finished programs for digital video, animation, television, and computer games. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

APPLIED MUSIC

MUS 2 (Not degree applicable)
COMMERCIAL MUSIC
ORIENTATION 1 UNIT
Class hours: 1 lecture/2 lab
Prerequisite: None.
This course provides preparation for professional and semi-professional work as a commercial musician. It includes preparation for auditions, techniques in securing employment, basic knowledge required for practicing musicians, conduct and deportment on the job, how to improve one's skills and correcting weaknesses in an individual's qualifications as a practicing professional or semi-professional. (Formerly MUS 48)

MUS 112 (CAN MUS 22)
ELEMENTARY PIANO I 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: None.
This course focuses on basic study technique, which will include reading, writing, listening and playing. A variety of elementary piano repertoire will be studied. Students learn to understand, experience and appreciate the fundamentals of keyboard musicianship. This course is designed for students with little or no background in piano playing. This course may be taken for a maximum of 5 units. (Formerly MUS 60)
Transfer Credit: CSU; UC

MUS 113 (CAN MUS 24)
ELEMENTARY PIANO II 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: MUS 112 or equivalent with a grade of Credit or "C" or higher.
This course focuses on the continuation of basic piano, which will include reading, writing, listening and playing. A variety of piano repertoire will be studied. Further emphasis will be on understanding, experiencing and appreciating the fundamentals of keyboard musicianship. This course may be taken for a maximum of 5 units. (Formerly MUS 61)
Transfer Credit: CSU; UC

MUS 114
INTERMEDIATE PIANO I 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: MUS 113 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of piano study at the intermediate level. A variety of assigned piano repertoire will be studied. Emphasis will be on understanding, experiencing and appreciating more advanced aspects of keyboard musicianship. This course may be taken for a maximum of 5 units. (Formerly MUS 62)
Transfer Credit: CSU; UC

MUS 115
INTERMEDIATE PIANO II 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: MUS 114 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of piano study that occurred in MUS 114. A variety of assigned piano repertoire at the intermediate to advanced level will be studied. This course may be taken for a maximum of 5 units.
Transfer Credit: CSU; UC

MUS 116
VOICE I 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: None.
This course focuses on basic vocal techniques including breath management, posture, phonation, resonation, and diction. A variety of elementary vocal repertoire is introduced from different musical styles: folk, classical, musical theater, and popular songs. Students learn to use the unamplified voice to its best

advantage and to interpret and perform songs suited to their individual ability. A concentration on musicianship is emphasized using ear-training techniques. This course may be taken for a maximum of 4 units. (Formerly MUS 40)
Transfer Credit: CSU; UC

MUS 117
VOICE II **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: MUS 116 or equivalent with a grade of Credit or "C" or higher .
This course focuses on a continuation of vocal techniques including breath management, posture, phonation, resonation, and diction. A variety of intermediate vocal repertoire will be introduced from different musical styles: folk, classical, musical theater, and popular songs. Student learns to use the unamplified voice to its best advantage and to interpret and perform songs suited to their individual ability. A concentration on musicianship is emphasized using ear-training techniques. This course may be taken for a maximum of 4 units. (Formerly MUS 41)
Transfer Credit: CSU; UC

MUS 118
VOICE III **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: MUS 117 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes the technical foundations of singing learned in Voice I and II. The song literature is more advanced and requires an understanding of a broad range of styles as previously discussed in the earlier courses. Ear training and musicianship require specific reading and identification skills. Stylistic interpretation is focused on, as well as performance techniques. Greater involvement with microphone and recording techniques will be encouraged. This course may be taken for a maximum of 4 units. (Formerly MUS 42)
Transfer Credit: CSU; UC

MUS 119
VOICE IV **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: MUS 118 or equivalent with a grade of Credit or "C" or higher.
The course continues the study of diction, style, technique, musicianship, and interpretation that occurred in Voice III. Acting with emphasis on stage movement, characterization, and improvisational techniques are explored in greater detail. Singers will be required to perform solos, duets, and in scenes. Popular styles are required to collaborate with recording studio to create projects. This course may be taken for a maximum of 4 units. (Formerly MUS 43)
Transfer Credit: CSU; UC

MUS 120
ELEMENTARY GUITAR I **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: None
This course provides basic instruction in classical and other styles of guitar playing at beginning level. It includes appropriate exercises to develop technical facility, material for sight reading, study of basic chords, and repertoire. The student must provide an acoustic guitar for his/her own use in the class. This course may be taken for a maximum of 5 units. (Formerly MUS 65)
Transfer Credit: CSU; UC

MUS 121
ELEMENTARY GUITAR II **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: MUS 120 or equivalent with a grade of Credit or "C" or higher.
This class refines guitar-playing techniques used in elementary classical, flamenco, and other pieces. Elements of improvisation, harmonization, and playing in upper positions are included. This course may be taken for a maximum of 5 units. (Formerly MUS 66)
Transfer Credit: CSU; UC

MUS 122
INTERMEDIATE GUITAR I **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: MUS 121 or equivalent with a grade of Credit or "C" or higher.
This class includes instruction in scales, chords, and arpeggios in all keys and positions. Included are intermediate levels of improvisation, accompanying, sight-reading, transposition, and the performance of folk, classical, and Flamenco styles. This course may be taken for a maximum of 5 units. (Formerly MUS 67)
Transfer Credit: CSU; UC

MUS 123
INTERMEDIATE GUITAR II **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: MUS 122 or equivalent with a grade of Credit or "C" or higher or equivalent.
This class covers the mastery of the entire guitar fingerboard, a study of intermediate and advanced music in several styles, and the principles of improvisation and transposition. This course may be taken for a maximum of 5 units. (Formerly MUS 68)
Transfer Credit: CSU; UC

MUS 135
THIS BUSINESS OF MUSIC **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the music business as it relates to the market place and job opportunities. It teaches the student about the important jobs in the industry and their duties and responsibilities. Topics include the process of promotion, publicity, management, touring, recording, contracts, accounting, artists relations and development, marketing, advertising, copyrights, and related music fields. (Formerly MUS 35)
Transfer Credit: CSU

MUS 142
JAZZ IMPROVISATION **1 UNIT**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Recommendation: Audition.
This course in basic techniques in improvisation begins with simple question-and-answer phrases and progresses to extended solos. It covers detailed and applied knowledge of chord progressions and stresses harmonic forms employed in all phases of jazz. Emphasis will be on the blues, 32-bar standards, and jazz pieces. Included are performance, analysis, listening, written improvisations, playing with records, and transcribed solo study. This course may be taken for a maximum of 4 units. (Formerly MUS 47)
Transfer Credit: CSU; UC

MUS 143
THE JAZZ AND
POPULAR SINGER **3 UNITS**
Class hours: 3 lecture
Prerequisite: Audition.
Corequisite: None.
Recommendation: None.
This course focuses on the study of jazz and popular singing styles with emphasis on historical elements, stylistic concepts, theoretical practices, performance procedures, and its function within the music industry. Topics include harmony and ear training for jazz and popular singers, historical analysis of significant singers of this genre, small vocal group jazz ensemble, studio recording techniques, improvisation, solo stylization, ensemble sound concepts, and the study of popular literature. This course may be taken for a maximum of 12 units. (Formerly MUS 36)
Transfer Credit: CSU

MUS 147
BASIC APPLIED MUSIC 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 127, 129, 132, 133, 134, 138, 139, 140 or 142
This course offers individuals instruction in voice, piano, or band/orchestral instruments with an assigned instructor on the applied music staff. Emphasis will be placed on study at the beginning level of technique and repertoire. It includes one hour per week recital attendance and one half hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 4 units. (Formerly MUS 30)
Transfer Credit: CSU; UC

MUS 148
PRIVATE STUDY / TECHNIQUE 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 127, 132, 133, 134, 138, 139, 140 or 142.
This course offers individual instruction in voice, piano, band/orchestral instrument with an assigned instructor on the applied music staff. Emphasis will be placed on technique development at the intermediate level necessary to form stronger musical skills and technical facility. Includes one hour per week recital attendance and one-hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 2 units. (Formerly MUS 31)
Transfer Credit: CSU; UC

MUS 149
PRIVATE STUDY / MUSICAL PREPARATION 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 127, 132, 133, 134, 138, 139, 140, or 142
This course offers individual instruction in voice, piano, or band/orchestral instruments with an assigned instructor on the applied music staff. Emphasis is on musical preparation of musical style and interpretation for the intermediate student. Repertoire will be representative of various periods and composers. It includes one hour per week recital attendance and one-hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 2 units. (Formerly MUS 32)
Transfer Credit: CSU; UC

MUS 150
PRIVATE STUDY / PERFORMANCE PRACTICE 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 127, 132, 133, 134, 138, 139, 140, or 142
This course offers individuals instruction in voice, piano, or band/orchestral instruments with an assigned instructor on the applied music staff. Emphasis is on performance practice and continued study of advanced repertoire representative of various periods and composers. It includes one hour per week recital attendance and one-hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 2 units. (Formerly MUS 33)
Transfer Credit: CSU; UC

MUS 151
PRIVATE STUDY / RECITAL PREPARATION 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 129, 130, 131, 132, 133, 134, 138, 139, 140, or 142
This course offers applied instruction in voice, piano, or traditional band or orchestral instrument with an assigned instructor on the applied music staff. Emphasis is placed on technique and repertoire representative of various periods and composers. It includes one hour per week recital attendance and one half hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 2 units. (Formerly MUS 34)
Transfer Credit: CSU; UC

MUS 152
THE ART OF TEACHING BEGINNING PIANO 2 UNITS
Class hours: 2 lecture
Prerequisite: MUS 112 and MUS 105 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The course introduces basic principles of successful piano teaching at the beginning level. Special problems encountered in teaching will be addressed. Emphasis will be placed on private and group piano teaching methods, personal development as a teacher and musician, analyzing and selecting appropriate literature, development of technique and reading ability in beginning-level students.
Transfer Credit: CSU

MUS 153
THE ART OF TEACHING INTERMEDIATE PIANO 2 UNITS
Class hours: 2 lecture
Prerequisite: MUS 152 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The course advances students' knowledge of principles and skills essential to teaching piano at the intermediate level. Emphasis will be on continued development of technique and reading ability in intermediate level students; private and group piano teaching methods; selection of intermediate literature; Baroque, Classical, Romantic and 20th century styles; studio organization and personal development as teacher and musician.
Transfer Credit: CSU

MUS 154
PIANO ENSEMBLE 1.5 UNITS
Class hours: 1 lecture/1.5 lab
Prerequisite: MUS 112 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will survey various origins and history of piano ensemble repertoire. Emphasis on development of basic technical skill, sight reading, transposition, improvisation, correct harmonization of melodies with piano accompaniments, principles of accompanying soloists and ensemble playing. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU; UC

PERFORMANCE

MUS 124
CONCERT BAND 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: Audition
Recommendation: None.
The concert band is dedicated to the performance of standard band literature. Emphasis will be placed upon the development of individual musicianship through both large group and small group rehearsal. Musical compositions of a wide variety of styles will be studied. Required participation in concerts may

include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 70)
Transfer Credit: CSU; UC

MUS 124A
BEGINNING BAND **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The beginning band is dedicated to the performance of beginning band literature. Emphasis will be placed upon the development of individual musicianship through both large group and small group rehearsal. Musical compositions of a wide variety will be studied. Introduction to ensemble performance and rehearsal techniques is studied. This course may be taken for a maximum of 10 units.
Transfer Credit: CSU

MUS 125
COMMUNITY SYMPHONIC BAND **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: Audition.
This is a concert band, playing the finest traditional and contemporary band literature available. Emphasis is on a high degree of individual musicianship and fine ensemble playing. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 71)
Transfer Credit: CSU; UC

MUS 125A
COMMUNITY BAND **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: Audition
Corequisite: None.
Recommendation: None.
The community band is dedicated to the performance of popular, family-oriented literature. Emphasis will be placed upon the development of individual musicianship through both large group and small group rehearsal. Musical compositions of a wide variety will be studied with an emphasis on medleys, marches, and overtures. Ensemble performance and rehearsal techniques are studied. This course may be taken for a maximum of 10 units.
Transfer Credit: CSU

MUS 126
PEP BAND **2.5 UNITS**
Class hours: 2 lecture/2 lab (Fall only)
Prerequisite: None.
Recommendation: Music background preferred.
The Pep Band provides entertainment music before and during home football games in the fall season. Additional performances may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 72)
Transfer Credit: CSU

MUS 127
ORCHESTRA **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: Audition.
Recommendation: None.
The orchestra is dedicated to the performance of standard orchestral literature. Emphasis will be placed upon the development of individual musicianship through both large group and small group rehearsal. Musical compositions of a wide variety of styles will be studied. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 73)
Transfer Credit: CSU; UC

MUS 128
COMMUNITY ORCHESTRA **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The community orchestra course is dedicated to the performance of standard orchestral literature. Emphasis will be placed upon the development of individual musicianship through both large group and small group rehearsal. Musical compositions of a wide variety of styles will be studied. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units.
Transfer Credit: CSU; UC

MUS 129
WOODWIND ENSEMBLE **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Audition.
This class provides each individual student the opportunity to learn and execute the principles of woodwind ensemble playing that only intimate chamber music can provide. Among the topics covered will be musical styles, phrasing, balance and blending techniques, intonation, rehearsal techniques, and performance experience. This course may be taken for a maximum of 6 units. (Formerly MUS 74)
Transfer Credit: CSU; UC

MUS 130
BRASS ENSEMBLE **1.5 UNITS**
Class hours: 1 lecture/2 activity
Prerequisite: Audition.
This class provides each individual student the opportunity to learn and execute the principles of brass ensemble playing that only intimate chamber music can provide. Among the topics covered will be musical styles, phrasing, balance and blending techniques, intonation, rehearsal techniques, and performance experience. This course may be taken for a maximum of 6 units. (Formerly MUS 75)
Transfer Credit: CSU; UC

MUS 131
PERCUSSION ENSEMBLE **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Audition.
This class provides each individual student the opportunity to learn and execute the principles of percussion ensemble playing that only intimate chamber music can provide. Among the topics covered will be musical styles, phrasing, balance and blending techniques, intonation, rehearsal techniques, and performance experience. This course may be taken for a maximum of 6 units. (Formerly MUS 76)
Transfer Credit: CSU; UC

MUS 132
GUITAR ENSEMBLE **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: MUS 120 or equivalent with a grade of Credit or "C" or higher, or audition.
This course is for the intermediate and advanced guitar student, who will gain experience performing music in ensemble situations. Emphasis is given in achieving a professional level of musicianship. Students will be required to perform two concerts, attend extra rehearsals, perform in festivals, practice in music department facilities and provide concert music for campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 77)
Transfer Credit: CSU; UC

MUS 133
STAGE BAND **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: Audition.
This course is designed for the student desiring to enter the fields of professional dance music, radio, or theatre orchestra work. Opportunity is provided for practical experience in organizing instrumental combinations of all kinds and sizes. Training is given in standard dance-band phrasing and improvisation. Nationally-known guest artists appear with the group, and opportunities are provided to

make professionally-engineered recordings. This course may be taken for a maximum of 10 units. (Formerly MUS 78)
Transfer Credit: CSU

MUS 134
JAZZ ENSEMBLE **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: Audition.
Recommendation: None.
The community jazz ensemble is dedicated to the performance of standard jazz band literature. Emphasis will be placed upon the development of individual musicianship through both large group and small group rehearsal. Musical compositions of a wide variety of styles will be studied. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 79)
Transfer Credit: CSU; UC

MUS 136
STRING ENSEMBLE **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Audition.
This class provides each individual student the opportunity to learn and execute the principles of string ensemble playing that only intimate chamber music can provide. Among the topics covered will be musical styles, phrasing, balance and blending techniques, intonation, rehearsal techniques, and performance experience. This course may be taken for a maximum of 6 units. (Formerly MUS 80)
Transfer Credit: CSU; UC

MUS 138
COMMUNITY CHORUS **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
This choral ensemble is designed for the student who has little or no previous vocal experience. Emphasis will be placed on the development of individual musicianship through the study of musical styles, vocal concepts and repertoire. A variety of traditional choral music ranging from renaissance to the twentieth century will be studied and performed. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 82)
Transfer Credit: CSU; UC

MUS 139
GOSPEL CHORUS **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
This choral ensemble is designed to for the student who has had little or no previous vocal experience. Emphasis will be placed upon the development of individual musicianship through the study of vocal concepts and repertoire. A variety of gospel styles ranging from traditional to contemporary will be studied and performed. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 83)
Transfer Credit: CSU; UC

MUS 140
POP CHOIR **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: By audition.
This choral ensemble is designed for the student who has had previous vocal experience. Emphasis will be placed upon the development of individual musicianship through the study of musical styles, vocal concepts and repertoire. A wide variety of music ranging from Broadway musicals to pop and jazz charts will be studied. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 89)
Transfer Credit: CSU

MUS 141
POP / ROCK ENSEMBLE **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: Audition.
This course will provide the students an opportunity to learn and perform contemporary music with an emphasis on pop, rock, and Latin. Aspects to be considered will include style, repertoire, instrumentation, equipment, visual presentation, and management. This course may be taken for a maximum of 10 units. (Formerly MUS 91)

MUS 160
MARCHING BRASS ENSEMBLE **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Audition
Corequisite: None.
Recommendation: None.
This course is designed for the brass student desiring to enter the field of marching music, education, studio, radio, and theatre orchestra work. Opportunity is provided for practical experience in organizing marching brass combinations of all styles and sizes. Training is given in standard marching brass phrasing and technique. Nationally known educators/clinicians will, at times, assist the group. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

MUS 161
MARCHING
PERCUSSION ENSEMBLE **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Audition
Corequisite: None.
Recommendation: None.
This course is designed for the student desiring to enter the fields of professional percussion playing in studio, radio, and theatre orchestra work. Opportunity is provided for practical experience in organizing marching percussion combinations of all styles and sizes. Training is given in standard marching percussion phrasing and technique. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

MUS 162
MARCHING
PAGEANTRY ENSEMBLE **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Audition
Corequisite: None.
Recommendation: None.
This course is designed for the student desiring to enter the fields of music and pageantry performance. Opportunity is provided for practical experience in organizing marching and pageantry combinations of all styles and sizes. Training is given in standard marching and maneuvering techniques. Nationally known educators/clinicians may assist with the group, and opportunities are provided to perform learned material. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

MUS 163
DRUM AND BUGLE CORPS **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Audition
Corequisite: None.
Recommendation: MUS 160 or equivalent with a grade of Credit or "C" or higher.
This course in drum and bugle corps is designed for the student desiring to enter the fields of music and pageantry education and performance. Opportunities are provided for practical experience in organizing marching and pageantry combinations of all styles and sizes. Training is given in standard drum and bugle corps format. Nationally known clinicians may assist with the group, and opportunities are provided to perform learned material. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

MUS 164
TOURING DRUM
AND BUGLE CORPS 1.5 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: Audition
Corequisite: None.
Recommendation: None.
This course will involve extensive touring on a local, regional, and national level. Opportunity is provided for practical experience in organizing marching and pageantry combinations of all styles and sizes. Training is given in standard Drum and Bugle Corps format. Nationally known educators/clinicians may assist with the group, and opportunities are provided to perform learned material. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

NURSING

(Health Occupations Division)

(FOR ADDITIONAL COURSES SEE HEALTH OCCUPATIONS)

NRSG 3 (Not degree applicable)
PREPARING FOR NURSING 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is designed for students planning to enter the nursing career. Content includes how to use time and other resources to become a successful nursing student. Overviews of nursing career options and educational pathways are presented, along with trends affecting nursing's future. Students are introduced to communication skills for use with a diverse student and patient population.

NRSG 25 (Not degree applicable)
CLINICAL WORKSHOP 1 0.5 UNIT
Total semester hours: 4.5 lecture/31.5 lab
Prerequisite: Current license as a Licensed Psychiatric Technician or Licensed Vocational Nurse or completion of one or more nursing core courses in an approved/accredited nursing program.
Corequisite: None.
Recommendation: None.
The purpose of this course is to provide the nursing applicant with theoretical concepts and skill demonstration and practice related to clinical competency necessary for advanced placement students entering the first year of the nursing program. Included are assessment processes and individualized planning to assist the student in attaining the necessary level of skills competence to support success in the nursing program. This course is offered on a credit no credit basis only. This course may be taken for a maximum of 1.5 units.

NRSG 26 (Not degree applicable)
CLINICAL WORKSHOP 2 0.5 UNIT
Total semester hours: 4.5 lecture/31.5 lab
Prerequisite: Current license as a Licensed Psychiatric Technician or Licensed Vocational Nurse or completion of one or more nursing core courses in an approved/accredited nursing program.
Corequisite: None.
Recommendation: None.
The purpose of this course is to provide the nursing applicant with theoretical concepts and skill demonstration and practice related to clinical competency necessary for advanced placement students entering the second year of the nursing program. Included are assessment processes and individualized planning to assist the student in attaining the necessary level of skills competence to support success in the nursing program. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 1.5 units.

NRSG 47T (Not degree applicable)
SUPERVISED NURSING –
TUTORIAL 0 UNIT
Class hours: 9 lab Open entry/open exit
Prerequisite: None.
Corequisite: Any nursing course or equivalent.
This course is designed to facilitate the learning of nursing knowledge, skills, and concepts through individualized and mediated instruction. It is open to students in the nursing program or planning to transfer into the program. This course is offered on a credit/no credit basis only. (Formerly NRSG 99)

NRSG 200
PHARMACOLOGY FOR NURSES 2 UNITS
Class hours: 2 lecture
Prerequisite: A&P 130 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the fundamentals of pharmacology as they relate to the nursing management of drug therapy. Prototype drugs, selected from the major drug classes, are used to illustrate important drug facts. Core drug knowledge is integrated with core patient knowledge to provide a framework for nursing management in drug therapy. (Formerly HO 20, NRSG 20)
Transfer Credit: CSU

NRSG 210
FUNDAMENTALS OF NURSING 2 UNITS
Class hours: 3 lecture/9 lab (6 weeks)
Prerequisite: A&P 130, MICR 200, HO 151 or HO 152, HO 236, HO 237, PSYC 101 or equivalent with grades of Credit or "C" or higher and admission to Nursing Program.
Corequisite: None.
Recommendation: None.
This course focuses on the introduction and beginning application of therapeutic communication techniques and fundamental skills required for patient care. The role of the nurse as a member of the health care team is introduced. The primary patient focus is the geriatric patient in long-term care settings. The student must receive a grade of "C" or higher in the lecture component and a satisfactory grade in clinical lab to pass the course.
Transfer Credit: CSU

NRSG 211
INTRODUCTION TO
THEORETICAL FRAMEWORK 0.5 UNIT
Class hours: 1.5 lecture (6 weeks)
Prerequisite: Admission to the Nursing Program or possession of an active Licensed Psychiatric Technician license.
Corequisite: None.
Recommendation: None.
This course introduces beginning nursing students and Licensed Psychiatric Technicians to the theoretical framework used in the Cerritos College Nursing Program. The roles of the Associate Degree Nurse as Provider of Care, Manager of Care and Member of the Discipline of Nursing are surveyed. An overview of the nursing process and the Roy Adaptation Model for Nursing are presented.
Transfer Credit: CSU

NRSG 212
MEDICAL-SURGICAL
NURSING 1 4 UNITS
Class hours: 6 lecture/18 lab (6 weeks)
Prerequisite: NRSG 210 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: NRSG 211 and NRSG 213, or equivalent with grades of Credit or "C" or higher or concurrent enrollment.
This course focuses on introduction and application of the Roy Adaptation Model, nursing process and roles of the Associate Degree Nurse. Theories are emphasized as the basis for providing nursing care to culturally and ethnically diverse patients. The focus of patient care is on less acutely ill medical-surgical patients in long-term and acute settings. Basic adult physical assessment skills are introduced and applied to healthy clients with identification of normal and common abnormal findings. The student must receive a grade of "C" or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course.
Transfer Credit: CSU

NRSG 213
SURVEY OF
PHARMACOLOGY **0.5 UNIT**
Class hours: 1.5 lecture (6 weeks)
Prerequisite: A&P 130 or equivalent with a grade of Credit or "C" or higher. Admission to the Nursing Program.
Corequisite: None.
Recommendation: None.
This course introduces the student to the nursing management of drug therapy. Prototype drugs, selected from the major drug classes, are used to illustrate important drug facts. Core drug knowledge is integrated with core patient knowledge to provide a framework for nursing management in drug therapy.
Transfer Credit: CSU

NRSG 214
MEDICAL-SURGICAL
NURSING 2 **3 UNITS**
Class hours: 4.5 lecture/13.5 lab (6 weeks)
Prerequisite: NRSG 212 or equivalent with a grade of Credit or "C" or higher.
Corequisite: NRSG 211 and NRSG 213 or prior completion with grades of Credit or "C" or higher.
Recommendation: None.
This course focuses on the application of the Roy Model and Nursing Process for the care of patients with specific conditions. Theory and application of physical assessment of the healthy adult continues and is applied clinically to patients in acute care settings. The focus of patient care is the acutely ill patient in medical-surgical care settings. The student must receive a grade of "C" or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course.
Transfer Credit: CSU

NRSG 215
ADVANCED
PLACEMENT BRIDGE **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: An active LVN license or current enrollment in a vocational or registered nursing program or completion of one or more Associate Degree Nursing or Bachelor of Science in Nursing courses with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Completion of READ 54, ENGL 52, and MATH 60 or equivalent with grades of Credit or "C" or higher or successful completion of the college placement process.
This course introduces Licensed Vocational Nurses and students transferring from other nursing programs to the theoretical framework used in the Cerritos College Nursing Program. The roles of the Associate Degree Nurse as Provider of Care, Manager of Care and Member of the Discipline of Nursing are surveyed. The Roy Adaptation Model for Nursing is taught as the basis for providing nursing care. Content also includes communication theory and application, client teaching concepts, assertion theory, and critical thinking foundational skills. Assessment of prior learning is used to guide individual students in preparing for advanced placement in the nursing program. (Formerly NRSG 1.5)
Transfer Credit: CSU

NRSG 220
MEDICAL-SURGICAL
NURSING 3 **5.5 UNITS**
Class hours: 6 lecture/15 lab
Prerequisite: NRSG 211, NRSG 213, NRSG 214 or equivalent with grades of Credit or "C" or higher. For Option B and E students: Admission to the Nursing Program.
Corequisite: None.
Recommendation; None.
This course focuses on increasingly complex nursing theory and clinical application of more complex skills required for care of adult medical-surgical patients in an acute care setting. Women's health disorders are also emphasized and the role of the nurse as Manager of Care in introduced. The student must receive a grade of "C" or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 1.3/NRSG 207)
Transfer Credit: CSU

NRSG 222
MATERNAL / CHILD NURSING **5.5 UNITS**
Class hours: 6 lecture/15 lab
Prerequisite: NRSG 220 and HO 236 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation:
This course focuses on the theory and clinical application of concepts related to the nursing care of childbearing women and children. The Roy Adaptation Model and nursing process are the theoretical framework emphasized as the basis for providing nursing care. Content includes normal and pathophysiological conditions of pregnancy and acute and chronic conditions of infants, children and adolescents. Acute and community based care settings are utilized. The student must receive a "C" grade or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 1.4/NRSG 208)
Transfer Credit: CSU

NRSG 230
PSYCHOSOCIAL AND
COMMUNITY NURSING **5 UNITS**
Class hours: 6 lecture/12 lab
Prerequisite: NRSG 222 or equivalent with a grade of Credit or "C" or higher. For Option C, D, E and F students: Admission to the Nursing Program.
The focus of this course is on the theory and clinical application of the Roy Adaptation Model and concepts related to the roles of the Associate Degree Nurse in the care of clients in the community settings. These include acute and psychiatric care settings, various rehabilitation programs, hospices, schools, and other community-based settings. Continuity of care and the ADN's role in case management are stressed. The student must receive a "C" grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.2/NRSG 218)
Transfer Credit: CSU

NRSG 232
MEDICAL-SURGICAL
NURSING 4 **5 UNITS**
Class hours: 6 lecture/12 lab (9 weeks)
Prerequisite: NRSG 230 or equivalent with a grade of Credit or "C" or higher. For Option C, D, and E students: Admission to the Nursing Program.
The focus of this course is on the theory and application of the nursing process based on the Roy Adaptation Model and in the care of the seriously ill medical-surgical patient. There is continued emphasis on theories and principles of providing nursing care to medical-surgical patients and management of care, which were introduced in previous courses. The student must receive a "C" grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.1/NRSG 219)
Transfer Credit: CSU

NRSG 240
MEDICAL-SURGICAL
NURSING 5 **5 UNITS**
Class hours: 6 lecture/12 lab (9 weeks)
Prerequisite: NRSG 232 or equivalent with a grade of Credit or "C" or higher. For Option E and F Students: Admission to the Nursing Program.
The main focus of this course is the theory and application of the nursing process in special care areas, utilizing the Roy Adaptation Model. The nurse's role as Manager of Care, introduced in previous courses, continues to be emphasized and refined. Course content includes: legal and ethical issues as they apply to nursing practice, community health issues, and advanced medical-surgical concepts. The student must receive a "C" grade or better in

the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.3/NRSG 270)
Transfer Credit: CSU

NRSG 242
PROFESSIONAL ROLE TRANSITION **3 UNITS**
Class hours: 1.5 lecture/23 lab (6 weeks)
Prerequisite: NRSG 240 or equivalent with a grade of Credit or "C" or higher.
The focus of this course is on the role transition from student nurse to registered nurse. Preparation for and professional responsibilities in employment are discussed. The student participates as a preceptee member of the health care team and assumes responsibility for a group of patients under the direct supervision of a qualified registered nurse. The student must receive a "C" grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.4/NRSG 280)
Transfer Credit: CSU

NRSG 251
BASIC ADULT PHYSICAL ASSESSMENT **1 UNIT**
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: Current or prior enrollment in an accredited nursing program or licensure as a health care provider.
Corequisite: None.
Recommendation: None.
This course focuses on physical examination of healthy adults stressing identification of normal and common abnormal findings in diverse populations. Variations due to normal age-related changes are presented. Examination techniques and elements of assessing functional, cognitive, and fluid status are introduced. Analysis of findings with clinical application is emphasized from the perspective of the entry-level Registered Nurse. Basic physical examination is limited to selected body structures within the following organ systems: integumentary, sensory, respiratory, cardiovascular, gastrointestinal, musculoskeletal, and neurological. This course is offered on a credit/no credit basis only. (Formerly NRSG 6)
Transfer Credit: CSU

OCEANOGRAPHY

(Science / Engineering / Math)
See Earth Science 104

OFFICE TECHNOLOGIES

SEE BCOT
(Business Computerized Office Technologies)

ORNAMENTAL HORTICULTURE

(Science / Engineering / Math)

ORNH 1 (Not degree applicable)
LANDSCAPE-GARDENER TRAINING **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides classroom education and practical experience so students can be readily employable as landscape gardeners. Basic knowledge and skills are provided in the areas of basic horticulture, landscaping, use of power equipment, irrigation, and safety. Practical skills are taught through supervised, outside, on-the-job experiences. Fundamentals of landscaping and horticulture are taught for rapid employability. This course is offered on a credit/no credit basis only. (Formerly ORNH 10.5)

ORNH 2 (Not degree applicable)
BONSAI **1 UNIT**
Class hours: 1.5 lecture/1.5 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Bonsai is the Japanese art of creating a perfect tree in miniature form. Basic classic Japanese styles are explained, discussed, and demonstrated in this class. The history of bonsai, use of basic tools, wiring, and plant choices are covered. Care, pruning, fertilizing, and basic watering methods are incorporated with in-class projects. This course may be taken for a maximum of 2 units. (Formerly ORNH 69.2/ORNH 28)

ORNH 3 (Not degree applicable)
ADVANCED BONSAI **1 UNIT**
Class hours: 1.5 lecture/1.5 lab (9 weeks)
Prerequisite: ORNH 2 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
Bonsai is the Japanese art of creating a perfect tree in miniature form. This class involves more advanced and creative styles of bonsai. Fertilizing, root pruning, maintenance, and care are stressed in this class. This course may be taken for a maximum of 2 units. (Formerly ORNH 69.3/ORNH 29)

ORNH 4A (Not degree applicable)
ADVANCED SPECIAL OCCASIONS FLORAL DESIGN III **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 61A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This advanced course emphasizes advanced floral techniques and upscale designs for special fall parties and holidays. A wide variety of flowers are used, and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 69.1/ORNH 33.3)

ORNH 4B (Not degree applicable)
ADVANCED SPECIAL OCCASIONS FLORAL DESIGN IV **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 61B or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This advanced course emphasizes advanced floral techniques and upscale designs for special spring, summer parties and holidays. A wide variety of flowers are used, and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 33.4)

ORNH 50
BASIC LANDSCAPE IRRIGATION **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: None.
The course will introduce students to the basic types of irrigation equipment and materials. Emphasis will be on design of residential systems, how to determine flow calculations, soil/plant water relationships, site and drainage problems. Lab projects will include actual design problems. Topics to be covered will include plumbing codes, backflow prevention, cost estimating and related subjects. (Formerly ORNH 20)

ORNH 51
ADVANCED LANDSCAPE IRRIGATION **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks).
Prerequisite: ORNH 50 or equivalent with a grade of Credit or "C" or higher.
The course will cover advanced irrigation

systems, equipment and materials. Emphasis will be on system design, flow calculations, large commercial site requirements and drainage. Topics to be covered include plumbing codes, fountains, pools, automatic controls, cost estimating and related subjects. (Formerly ORNH 21)

ORNH 52
RESIDENTIAL LANDSCAPE DESIGN **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This course covers basic residential design concepts. Emphasis is placed on low maintenance, energy saving residential landscape design. Topics to be covered will include design of entry and sidewalk areas, patios, play and service areas. (Formerly ORNH 22)

ORNH 53
COMMERCIAL LANDSCAPE DESIGN **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
Basic commercial design concepts and elements, low maintenance plant material and turf will be presented. Emphasis will be placed on attention to traffic patterns and parking as related to the Southern California environment and lifestyles. (Formerly ORNH 23)

ORNH 54
LANDSCAPE CONTRACTING / MANAGEMENT **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course is an introduction to the landscape business. Management principles related to the industry such as hiring and training of employees, on site supervision, work scheduling and labor relations will be covered. State and local licensing regulations will be introduced. (Formerly ORNH 24)

ORNH 55
LANDSCAPE CONTRACTING / OPERATIONS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course is an introduction to the operations of landscape contracting: included are basic landscape construction practices, pricing of materials, bidding and estimation, and the ordering and handling of plant materials. Landscape contracting philosophy, ethics, law and professional business practices will also be presented. (Formerly ORNH 25)

ORNH 56
PLANT DISEASE CONCEPTS **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This course presents basic disease concepts pertaining to ornamental plant material in the Southern California area. Diagnosis, appropriate management practices and recognition of common plant diseases are stressed. (Formerly ORNH 26)

ORNH 57
PLANT DISEASE MANAGEMENT **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: ORNH 56 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to most prevalent diseases of Southern California plants. Emphasis of the class will be on the recognition of symptoms in relation to proper treatment and prevention of local plant diseases. (Formerly ORNH 27)

ORNH 58
INTERIOR PLANTSCAPES: HOUSEPLANTS **2 UNITS**
Class hours: 2 lecture/1 lab
Prerquisite: None.
Recommendation: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in houseplants. A study will be made of factors involved in houseplant selection, care, maintenance, and proper use. Decisions involved in proper plant placement for interior horticultural use will be examined. (Formerly ORNH 30)

ORNH 59
BASIC FLORAL DESIGN **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: None.
This course will provide the student with knowledge, skills and experience which are basic to the floral industry. The course will cover basic floral arrangements, the use of standard flowers in bud vases, simple corsages, dish gardens, holiday arrangements and novelty items. Skills learned will qualify students for entry level employment in the floral industry. (Formerly ORNH 31)

ORNH 60
ADVANCED FLORAL DESIGN **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes advanced floral design. Non-traditional type flowers will be combined into mixed arrangements, high style, holiday arrangements, wedding and funeral projects. Dry flower arrangements, window displays, fruit and party designs will also be covered. This course may be taken for a maximum of 4 units. (Formerly ORNH 32)

ORNH 61A
SPECIAL OCCASIONS FLORAL DESIGN I **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes advanced floral techniques and upscale designs for fall and winter parties and holidays. A wide variety of flowers are used, and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 33.1)

ORNH 61B
SPECIAL OCCASIONS FLORAL DESIGN II **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes advanced floral designs for special occasions which occur in the spring season. A wide variety of flowers will be used in developing class and individual projects. This course may be taken for a maximum of 4 units. (Formerly ORNH 33.2)

ORNH 62A
WEDDING FLORAL DESIGN **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes floral designs for weddings and the many floral specialties that may be used for weddings. A wide variety of flowers will be used and special projects will be developed and executed. This course may be taken for a maximum of 4 units. (Formerly ORNH 34)

ORNH 62B
WEDDING FLORAL DESIGN I **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course focuses on floral design for weddings. Emphasis is placed on flower arrangements for the bride and bridal party. A

wide variety of flowers will be used and special projects will be developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 34.1)

ORNH 62C
WEDDING FLORAL DESIGN II 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course focuses on floral design for weddings. Emphasis is placed on flower arrangements utilized in decorations for the wedding and reception. A wide variety of flowers are used and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 34.2)

ORNH 63
INTEGRATED FLORAL DESIGN 1 UNIT
Class hours: 1.5 lecture/1.5 lab (9 weeks)
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes utilization and integration of a variety of floral and non-floral materials in advanced floral design. Silks, fabrics, and dried plant matter are used. This course may be taken for a maximum of 2 units. (Formerly ORNH 35)

ORNH 64
FLORAL DESIGN FOR FUNERALS 1 UNIT
Class hours: 1.5 lecture/1.5 lab (9 weeks)
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes advanced floral designs for funerals. A wide variety of flowers and related materials are used to construct assigned projects. This course may be taken for a maximum of 2 units. (Formerly ORNH 36)

ORNH 65
TREE MAINTENANCE I 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This course covers the basic concepts of tree growth, selection, proper planting methods and soil management. Basic tree pruning techniques, fertilization and irrigation practices will be covered. Current trends and philosophy of tree maintenance of the Southern California area will be emphasized. (Formerly ORNH 40)

ORNH 66
TREE MAINTENANCE II 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: ORNH 65 or equivalent with a grade of Credit or "C" or higher.
This course introduces fundamental safe working practices and basic safety equipment practices involved with tree maintenance. Cable and bracing techniques and wound repairing will be covered. Spraying fundamentals and integrated pest management controls and practices for Southern California trees will be covered. (Formerly ORNH 41)

ORNH 67
LANDSCAPE DESIGN RENDERING 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: ORNH 180 or equivalent with a grade of Credit or "C" or higher.
This course is involved with the rendering of landscape designs with various kinds of media. Basic practices and uses of pastels, prisma and markers will be stressed on practical landscape projects. Highlighting, shading, delineating landscape plans for advanced designers of hardscapes and softscapes will be covered. (Formerly ORNH 42)

ORNH 68
LANDSCAPE PLANTING DESIGN 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: ORNH 180 or equivalent with a grade of Credit or "C" or higher.
This course develops plant relationships and combinations of odor, texture, fragrance and shapes of plants for landscapes of Southern California. Planter designs and specialty areas in landscaping themes and styles will be developed. Seasonal color changes in planting designs and choices of popular styles and themes will be investigated of landscape designs of Southern California. (Formerly ORNH 43)

ORNH 100
INTRODUCTION TO ORNAMENTAL HORTICULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is an introductory course in Ornamental Horticulture. Plant structure, terms, growth, and functions, plant identification, water, soil, light, temperature, fertilizers, propagation, pruning, insects, weeds, diseases, and industry will be studied. (Formerly ORNH 10)
Transfer Credit: CSU

ORNH 110
SOILS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in soils. Soil development, soil and water, soil properties, physical and chemical, use of fertilizer, conservation and irrigation will be presented. The effect of soils and water on living plants will be observed. (Formerly ORNH 11)
Transfer Credit: CSU; UC

ORNH 120
ORNAMENTAL TREES 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This course includes identification of trees, growth habits, and use of trees adapted to So. California. It includes the planting, growth, fertilizing, pruning, disease and pest control. (Formerly ORNH 12)
Transfer Credit: CSU

ORNH 130
ORNAMENTAL SHRUBS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This is a course in identification of ornamental shrubs, their habits, culture, diseases, and problems will be studied. The use of specific shrubs in landscaping will be presented. (Formerly ORNH 13)
Transfer Credit: CSU

ORNH 140
PLANT PROPAGATION 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This is a course in theory and practices of plant propagation--seeding, cutting, division, layering, budding, and grafting. Study will include: propagation structures, environmental mediums, the root inducing materials, the light and control units. Students will be required to propagate plant material in the lab. (Formerly ORNH 14)
Transfer Credit: CSU

ORNH 150
TURF GRASS MANAGEMENT AND GROUNDCOVERS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This course is a practical study of turf and groundcovers, covering identification, fertilization, soil problems, drainage, weed and pest control and maintenance. Included is propaga-

tion, turf equipment, turf plot study and specialized problems. (Formerly ORNH 15)
Transfer Credit: CSU

ORNH 160
INSECTS AND WEEDS **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
A course in insects and weeds as related to plant growth and culture. Identification, life cycle, plant damage and controls will be studied. (This course will help prepare for California Agriculture Pest and Weed Control Advisors license examination.) (Formerly ORNH 16)
Transfer Credit: CSU

ORNH 180
BASIC LANDSCAPE DESIGN **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in landscape design as it applies to Southern California weather, soil, environment, and plant materials. It includes basic estimating, sprinkler systems, and relandscaping techniques for small residences. (Formerly ORNH 18)
Transfer Credit: CSU

ORNH 190
NURSERY MANAGEMENT
AND OPERATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This course presents an overview of the nursery industry. It includes topics such as wholesale marketing and shipping, soil management, propagation techniques, irrigation methods and nursery stock management. Storage facilities, inventory control and appropriate business practices specific to the nursery industry will be emphasized. (Formerly ORNH 19)
Transfer Credit: CSU

PARALEGAL
SEE BL

(Business Paralegal)

PHARMACY TECHNICIAN

(Health Occupations Division)

PHAR 40L
PHARMACY CLERK LAB **1 UNIT**
Class hours: 1 lecture/2 lab (12 weeks)
Prerequisite: None.
Corequisite: PHAR 60
Recommendation: None.
This course is designed to provide the student with hands-on experience working with a computerized Pharmacy Management System in the retail setting. (Formerly PHAR 4)

PHAR 45
RETAIL PRODUCTS
FOR PHARMACY CLERKS **2 UNITS**
Class hours: 3 lecture (12 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides basic knowledge about Over-the-Counter (OTC) products in relation to their accepted therapeutic uses. Students will understand the steps involved in safely choosing a non-prescription product. (Formerly PHAR 5)

PHAR 47
PHARMACY CLERK
CLINICAL EXPERIENCE **2 UNITS**
Class hours: 1 lecture/123 variable semester lab hours (6 weeks)
Prerequisite: PHAR 40L, PHAR 45, and PHAR 60 or equivalent with grades of Credit or "C" or higher. Verification of negative chest x-ray for non-reactive T.B. skin test within the last year.
Corequisite: None.
Recommendation: None.
This course is designed to provide the student with practical clerk experiences in selected outpatient community pharmacy settings working under the supervision of a registered pharmacist. (Formerly PHAR 6)

PHAR 50
PHARMACEUTICS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: HO 56 or equivalent with a grade of Credit or "C" or higher.
Recommendation: None.
This course is designed to develop the practical application of fundamentals of measurements and mathematics utilized by the pharmacy technician. (Formerly PHAR 12)

PHAR 60
PHARMACY
INTRODUCTION AND SKILLS **2 UNITS**
Class hours: 3 lecture (12 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This introductory course is designed to provide the student with an overview of the pharmacy profession and the role of the pharmacist, pharmacy technician and pharmacy clerk in community-based retail pharmacies. Students will be introduced to pharmacy law, will learn how to read and process prescriptions, and will be trained in the communication skills necessary to work in a retail setting. (Formerly PHAR 10)

PHAR 62
PHARMACY OPERATIONS I **0.5 UNIT**
Class hours: 2 lecture/1 lab (6 weeks)
Prerequisite: PHAR 60 or equivalent with a grade of Credit of "C" or higher. Admission to Pharmacy Technician Program.
This course is designed for the student to develop those skills necessary to work in a setting dealing with patients, pharmacists, and co-workers in an inpatient setting. The student will develop an understanding of hospital distribution systems, medication order transcription and interpretation of various sections of a patient's profile. (Formerly PHAR 11)

PHAR 63
PHARMACY OPERATIONS II **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: PHAR 62, BCOT 62, and BCOT 135 or equivalent with grades of Credit or "C" or higher. Certificate verifying typing proficiency at 30 wpm may substitute for BCOT 62 and BCOT 135.
This course is designed for the Pharmacy Technician major to develop proficiency in skills necessary to both hospital and community pharmacy settings. It will also introduce students to the many contemporary issues facing the pharmacy profession. Included will be use of forms, drug formularies, patient profiles, patient charts, processing of medication orders, drug manufacturing and packaging, and computers. (Formerly PHAR 13)

PHAR 64
PHARMACY OPERATIONS III **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: PHAR 50 and PHAR 63 or equivalent with grades of Credit or "C" or higher. PHAR 63 and PHAR 64 may be taken concurrently; however, PHAR 64 cannot be taken prior to PHAR 63.
This course is designed to develop proficiency

in manufacture and storage of medications, including intravenous admixtures and antineoplastic substances. It includes disease processes, infection control, manufacturing standards and pharmacy equipment. (Formerly PHAR 14)

PHAR 81
OVER-THE-COUNTER PRODUCTS **3 UNITS**
Class hours: 3 lecture.
Prerequisite: MA 161 or A&P 120 or equivalent with a grade of Credit or "C" or higher.
This course provides knowledge about Over-the-Counter (OTC) products in relation to their classification and general actions to help a person select a non-prescription drug safely and rationally. (Formerly PHAR 15)

PHAR 83
PHARMACY TECHNICIAN PHARMACOLOGY I **3 UNITS**
Class hours: 3 lecture
Prerequisite: MA 161 or A&P 120 or equivalent with a grade of Credit or "C" or higher.
Recommendation: None.
This pharmacology course covers information on drugs affecting the gastrointestinal system, vitamin and mineral balance, infectious diseases, neoplastic disorders, immunological function, hormonal function, mood and behavior and the eyes. Content includes how drugs exert their effects, adverse effects and major indications for drug use. Emphasis will be placed on routes of administration and product types. (Formerly PHAR 21)

PHAR 85
PHARMACY TECHNICIAN PHARMACOLOGY II **3 UNITS**
Class hours: 3 lecture
Prerequisite: MA 161 or A&P 120 or equivalent with a grade of Credit or "C" or higher.
Recommendation: None.
This pharmacology course covers information on drugs affecting the respiratory, integumentary, nervous and cardiovascular systems. Content includes major indications for drug use, how drugs exert their effects, adverse effects and specific implications for consumer awareness. Drugs of abuse, at-risk populations and treatment regimens are included. Emphasis will be on routes of administration and product types. (Formerly PHAR 22)

PHAR 90
CLINICAL EXPERIENCE I **3 UNITS**
Class hours: 1 lecture/120 variable semester lab hours
Prerequisite: PHAR 50, PHAR 63 and PHAR 81 or equivalent with grades of Credit or "C" or higher. Verification of negative chest x-ray or non-reactive T.B. skin test within the last year.
This course is designed to provide the student with practical experiences in selected outpatient community pharmacy settings working under the supervision of a registered pharmacist. (Formerly PHAR 31)

PHAR 95
CLINICAL EXPERIENCE II **5 UNITS**
Class hours: 1 lecture/200 variable semester lab hours
Prerequisite: PHAR 64, PHAR 83, and PHAR 85 or equivalent with grades of Credit or "C" or higher. Verification of negative chest x-ray or non-reactive T.B. skin test.
This course is designed to provide the student with practical experiences in the classroom lab and in selected hospital pharmacy settings working with intravenous additives and sterile extemporaneous packaging areas. (Formerly PHAR 41)

PHAR 173/174
PHARMACY TECHNICIAN OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Pharmacy Technician work experience 73 or 20 hours of employment per week for Pharmacy Technician work experience 74. The employment must be in a job related to the student's educational goal.
Prerequisite: None.
Corequisite: Enrollment in the Pharmacy Technology vocational program with 7 or more units including occupational work experience.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job. (Formerly PHAR 73/74)

PHILOSOPHY

(Humanities/Social Sciences Division)

PHIL 100 (CAN PHIL 2)
INTRODUCTION TO PHILOSOPHY **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This is a humanities course developing philosophical concepts through problems and systems of thought in selected Western philosophers such as Socrates, Plato, Aristotle, Augustine, Aquinas, Bacon, Kant, etc; it, furthermore, studies modern movements in Western culture such as dialectical materialism, pragmatism, analytic philosophy, and existentialism. (Formerly PHIL 5)
Transfer Credit: CSU; UC

PHIL 102 (CAN PHIL 4)
INTRODUCTION TO ETHICS **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process to enter ENGL 100, or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course represents a survey of the major theories of value in the writings of some prominent philosophies of Western culture and the Asian tradition, with special attention to a critical evaluation of their relevance to educational, ethical, esthetic, religious, and social problems of our times. (Formerly PHIL 6)
Transfer Credit: CSU; UC

PHIL 104
PHILOSOPHY OF CULTURAL DIVERSITY: CHALLENGE AND CHANGE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 or equivalent with a grade of Credit or "C" or higher is strongly recommended.
This humanities course is designed to create understanding, appreciation, and tolerance of diverse cultures, particularly those of non-Western civilizations which are ethnic minority groups in American culture. Topics covered will include the nature of culture, the epistemology of cultural diversity, world views, religion, traditional values, ethnocentrism, cultural relativism, cultural pluralism, and the philosophy of liberation. (Formerly PHIL 8)
Transfer Credit: CSU; UC

PHIL 106 (CAN PHIL 6)
INTRODUCTION TO LOGIC **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course gives an introduction to the basic principles of inductive and deductive reasoning, the uses of language, definition, analysis of fallacious arguments in various areas, and integration of composition and critical thinking skills. (Formerly PHIL 12)
Transfer Credit: CSU; UC

PHIL 200
WORLD RELIGIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or ENGL 155 or equivalent with a grade of Credit or "C" or higher is strongly recommended.
This course presents a comparative study of the major religions of the world including Hinduism, Buddhism, Taoism, Shinto, Judaism, Christianity, Islam, etc. The survey pertains to their origin, historic development, primary source book, theological doctrines and value system. (Formerly PHIL 7)
Transfer Credit: CSU; UC

PHIL 201
INTRODUCTION TO TWENTIETH CENTURY PHILOSOPHY **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or completion of ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Satisfactory completion of READ 42 or equivalent with a grade of Credit or "C" or higher.
This course is a survey of the major philosophical movements that characterize the twentieth century, including the rise of Continental, Anglo-American, Marxist, Feminist, Asian, African, and Latin American philosophies. Students will become familiar with the diversity of styles, methods and approaches twentieth century philosophers have developed in response to the problems of self, subjectivity, consciousness, alienation, anxiety, authenticity, social justice, realism, relativism and the role of meaning and language in philosophical inquiry. (Formerly PHIL 9)
Transfer Credit: CSU; UC

PHIL 202
CRITICAL THINKING AND ARGUMENTATIVE WRITING **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course develops critical thinking skills necessary for evaluating and formulating argumentative/persuasive essays and practice in applying those skills. (Formerly PHIL 11)
Transfer Credit: CSU; UC

PHIL 204
PHILOSOPHY OF THE BIBLE I (HEBREW SCRIPTURES) **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process to enter ENGL 100, or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is a general introduction to the philosophical, religious, cultural and historical influences on the development of the Hebrew Scriptures. The methods of critical analysis of Biblical materials from an academic point of view will be presented and discussed. (Formerly PHIL 15)
Transfer Credit: CSU; UC

PHIL 206
PHILOSOPHY OF THE BIBLE II (CHRISTIAN SCRIPTURES) **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process to enter ENGL 100, or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is a general introduction to the philosophical, religious, cultural and historical influences on the development of the Christian Scriptures. The methods of critical analysis of Biblical materials from an academic point of view will be presented and discussed. (Formerly PHIL 16)
Transfer Credit: CSU; UC

PHOTOGRAPHY

(Fine Arts / Communications Division)

PHOT 100 (CAN ART 18)
INTRODUCTORY PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
This is a beginning course in the theory and practice of photography. The lecture portion of the class will emphasize historical trends, contemporary applications, and an appreciation of photography as an art and as a craft. The lab portion will introduce the student to camera technique, film exposure, processing, darkroom techniques, lighting, and composition. (Formerly PHOT 29)
Transfer Credit: CSU; UC

PHOT 102
INTERMEDIATE PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This is a black-and-white photography course dealing with special film processing techniques, high-contrast applications, and a continuation of principles taught in the introductory class. Introduction to large format cameras, copying techniques, lighting setups, and commercial applications of photography will be covered in the lectures and in the laboratory. (Formerly PHOT 30)
Transfer Credit: CSU

PHOT 110
INTRODUCTION TO DIGITAL PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an introduction to the basics of digital photography. Topics include use of digital cameras; scanning techniques; file compression and formatting; use of image editing software (primarily Adobe Photoshop); printing techniques; and legal, philosophical and sociological issues associated with digital photography. Emphasis is placed on constructing meaning in imagery through digital techniques. (Formerly PHOT 92)
Transfer Credit: CSU

PHOT 112
INTERMEDIATE DIGITAL PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 110 or ART 192 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course continues the instruction in digital photographic technique begun in PHOT 110, and explores digital photography as a new visual arts medium. More intensive use of tools and filters in Adobe Photoshop and other art- and photo-related software, advanced camera techniques, and scanning and output methods are included with emphasis on constructing meaning in imagery through digital processes. (Formerly PHOT 93)
Transfer Credit: CSU

PHOT 120
INTRODUCTION TO COLOR SLIDE PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This course covers the use of color photographic transparency materials in photography. Topics include color theory, color exposure techniques, film types, print techniques, composition, and the history of color photography. Emphasis is place on experiential field and studio work. (Formerly PHOT 28)
Transfer Credit: CSU

PHOT 122
INTRODUCTION TO
COLOR PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.
This course provides instruction in the basic principles of color photography with darkroom experience. Negative and positive film developing and printing techniques are investigated. Emphasis is on photography as a fine art, stressing beginning visual awareness. (Formerly PHOT 34)
Transfer Credit: CSU

PHOT 124
INTERMEDIATE
COLOR PHOTOGRAPHY **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: PHOT 122 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of principles learned in the introductory color class, with more in-depth skill development and image evaluation. The student is encouraged to explore color photography through experience with materials, darkroom techniques, and development of personal vision and style. (Formerly PHOT 35)
Transfer Credit: CSU

PHOT 130
PHOTO JOURNALISM **3 UNITS**
Class hours: 3 lecture
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course deals with the photographer as a journalist, focusing on theory and practice in press and publications photography, with emphasis on using the camera as a reporting and communications tool. Covered are news and feature photography and photographic essays, including composition, impact, and creativity, for newspapers, magazines, Internet and other mass communications media. Students must have access to a 35mm camera. This course is not open to students who are enrolled in or who have received credit in JOUR 130.
Transfer Credit: CSU

PHOT 160
HISTORY OF PHOTOGRAPHY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of the history of photography from its origins to the present, speculating on the future. This course traces the development of photographic theory and practice form its inception, through postmodernism to the present. The major concepts of photographic representation and the impact of photography on society are also covered. (Formerly PHOT 40)
Transfer Credit: CSU; UC

PHOT 171
OCCUPATIONAL
WORK EXPERIENCE
IN PHOTOGRAPHY **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Photography, in a declared Photography major. One unit of Occupational Work Experience in Photography requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the students/workers, the college, and the employers/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their approved projects are completed. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

PHOT 200
ADVANCED PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.
This course is designed to advance each student's knowledge and skills in film processing, printing, large-format camera, lighting, camera techniques, and a professional presentation of photographs. Each student will be expected to present a high quality portfolio at the end of the semester. Class will include black-and-white as well as color assignments. (Formerly PHOT 31)
Transfer Credit: CSU

PHOT 220
ADVANCED
COLOR PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: PHOT 124 or equivalent with a grade of Credit or "C" or higher.
This course will focus on the non-traditional use of light, color, and materials in the production of color photographic images. Topics include shooting techniques, lighting techniques, film and paper types, darkroom methods, and camera techniques. This course may be taken for a maximum of 6 units. (Formerly PHOT 42)
Transfer Credit: CSU

PHOT 230
PORTRAIT PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This is a beginning course in the theory and practice of camera techniques, posing, and lighting as applied to the field of professional portraiture. Lectures will include use of professional lab services and promoting portrait photography. (Formerly PHOT 41)
Transfer Credit: CSU

PHOT 232
STUDIO PROBLEMS
IN PHOTOGRAPHY **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course examines a variety of approaches to studio problems in photography. Concept development and execution and the studio environment, including equipment and materials, studio construction, location work, and lighting and exposure techniques, will be covered. Students will concentrate on a semester long project in a specialized area of studio work. This course may be taken for a maximum of 6 units. (Formerly PHOT 44)
Transfer Credit: CSU

PHOT 234
PORTFOLIO DEVELOPMENT **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.
This course is designed to address the marketing aspects of photography. Preparation of portfolios, care of original photographs, photography markets, legal aspects, and gallery exhibition are the primary course topics. (Formerly PHOT 38)
Transfer Credit: CSU

PHOT 240
EXPERIMENTAL PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher or equivalent.
This class is designed to explore black and white photographic materials through a non-traditional process. Topics covered include infrared film, chemical painting, toners, hand-coloring, reticulation emulsion transfers, and others. Emphasis is placed on using process as communicative content. (Formerly PHOT 36)
Transfer Credit: CSU

PHOT 242
NON-SILVER PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This course explores historical and photographic processes (printing-out processes) which utilize hand-applied emulsions and large contact negatives in the production of photographic imagery. Emphasis is placed on the use of process for communicative content. (Formerly PHOT 39)
Transfer Credit: CSU

PHOT 250
CONTEMPORARY PHOTOGRAPHIC EXPRESSION 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This course is an in-depth study of the use of visual language for contemporary photographic expression. Imagery is stressed, with process used as the tool for achieving a particular expression. Students will explore photographic genres, as well as discover the uniqueness of their own approach through the creation of a personal body of work. (Formerly PHOT 37)
Transfer Credit: CSU; UC

PHOT 252
PHOTOGRAPHY OF THE NATURAL ENVIRONMENT 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course examines the interpretation of the natural environment through the medium of photography. Environmental issues and theories of photographic approaches to the natural world are stressed. Topics include film types, exposure techniques, appropriate equipment and care, field conditions, and printing techniques. This course may be taken for a maximum of 6 units. (Formerly PHOT 46)
Transfer Credit: CSU

PHYSICAL EDUCATION

(HPER / Athletics Division)

PHYSICAL EDUCATION
PRE-PROFESSIONAL THEORY

PE 4 (Not degree applicable)
INDIVIDUALIZED ATHLETIC INJURY RECONDITIONING 0 UNIT
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide students with the individualized opportunity to acquire and practice the skills necessary for enhanced participation in their sport or activity of choice through a reconditioning program after an injury has occurred.

PE 100
INTRODUCTION TO PHYSICAL EDUCATION AND SPORT 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is a survey of physical education and sport along with the allied fields and their significance in the school and non-school program. Emphasis will be placed on the acquisition of leadership skills and knowledge in planning, organizing, presenting and evaluating activities. Additionally, career opportunities in physical education and all related fields will be surveyed. (Formerly PE 1)
Transfer Credit: CSU; UC

PE 101A#
SPORTS OFFICIATING FOR FOOTBALL 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Theory and practice are combined in a study of the organization and techniques of officiating football.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 101B#
SPORTS OFFICIATING FOR MEN'S AND WOMEN'S BASKETBALL 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to give the student a detailed study of the techniques of officiating men's and women's basketball.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 102A#
SPORTS OFFICIATING FOR BASEBALL 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an in-depth study of the mechanics and rules of officiating baseball.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 102B#
SPORTS OFFICIATING FOR MEN'S AND WOMEN'S TRACK AND FIELD 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an in-depth study of the organization and techniques of officiating track and field and cross-country.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 103#
SPORTS OFFICIATING FOR WOMEN'S ACTIVITIES I 2 UNITS
Class hours: 2 lecture
Prerequisite: None
This course is designed to give the student a detailed study of the techniques of officiating women's athletic activities. This course prepares the student to take the authorized

N.A.G.W.S. examination (written and practical) which is necessary to obtain an official rating. Sports included are Volleyball, Basketball, Field Hockey and Flag Football. (Formerly PE 3.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 104#
SPORTS OFFICIATING
FOR WOMEN'S ACTIVITIES II 2 UNITS
Class hours: 2 lecture
Prerequisite: None
This course is designed to give the student a detailed study of the techniques of officiating women's athletic activities. This course prepares the student to take the authorized N.A.G.W.S. examination (written and practical) which is necessary to obtain an official rating. Sports included are softball, soccer and speed-a-way, tennis, badminton, and track and field. (Formerly PE 3.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 105
STUDENT ATHLETES IN SOCIETY 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with an analysis and interpretation of issues affecting student athletes in past and present societies. Physiological, sociological, and psychological aspects of student athletes as related to sport and education will be covered. Students will plan for future career opportunities. (Formerly PE 4)
Transfer Credit: CSU

PE 106
WOMEN IN SPORTS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with a chronological history, analysis and interpretation of people, events and issues affecting women in sports, in past and present societies. Physiological, sociological and psychological aspects of female athletes as related to sport, history and education will be covered. Students will gain an understanding of the significant events of women in athletics from the past to the present and how their significance will determine the future of women in sports.
Transfer Credit: CSU

PE 107
INTRODUCTION TO
ATHLETIC TRAINING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides instruction in the prevention, assessment, management, and reconditioning of athletic injuries. Taping and bandaging, protective padding, and modalities used for treatment will be presented. (Formerly PE 7.1)
Transfer Credit: CSU; UC

PE 253
SPORTS PSYCHOLOGY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide students with the knowledge and experiences related to the psychological aspects of sport and physical activity. This course will also assist students in understanding the forces involved in participation and performance in athletics through exploring cultural, emotional, and social factors which affect concept of sport.
Transfer Credit: CSU

PE 254
MEASUREMENT AND
INTERPRETATION OF FITNESS 3 UNITS
Class hours: 2.5 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course covers the theory and practical application of current testing procedures and instrumentation used in exercise testing. Students learn to perform and interpret the basic measurement protocols for cardiorespiratory endurance, muscular strength and endurance, flexibility, body composition and blood pressure.
Transfer Credit: CSU

PE 255
PROGRAMS AND PRINCIPLES
OF CONDITIONING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide the student with basic knowledge and principles related to exercise prescription. Students will develop the skills necessary to design and implement training programs as they relate to the components of fitness. Safeguards and effectiveness for all levels of fitness will be addressed.
Transfer Credit: CSU

PE 260
ATHLETIC INJURY ASSESSMENT
AND RECONDITIONING 2 UNITS
Class hours: 2 lecture
Prerequisite: PE 107 with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course allows the student to expand upon the knowledge of the mechanism, assessment and reconditioning of athletic injuries. Emphasis is placed upon injury mechanism and assessment, the phases of healing, modalities used in the healing process, and the application of exercise and exercise equipment in the reconditioning of athletic injuries.
Transfer Credit: CSU

PE 261
ATHLETIC INJURY
TAPING, BANDAGING
AND IMMOBILIZATION 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: PE 107 with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course allows the student to expand upon the knowledge and skill of management, bandaging, and taping of athletic injuries. Emphasis is placed on immobilization of acute injuries, and the techniques used for preventative bandaging and taping of athletic injuries.
Transfer Credit: CSU

PE 271
OCCUPATIONAL
WORK EXPERIENCE IN ATHLETIC
TRAINING AND FITNESS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Athletic Training and Fitness, in a declared Athletic Training and Fitness major. One unit of Occupational Work Experience in Athletic Training and Fitness requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the students/workers, the college, and the employers/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evalu-

ation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their approved projects are completed. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

PHYSICAL EDUCATION PRE-PROFESSIONAL ACTIVITIES

PE 108#
PROFESSIONAL ACTIVITIES FOR MEN'S SPORTS I **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
Emphasis will be on the theory and practice of football and basketball. The course presents the fundamental knowledge of the sports through techniques of lecture, discussion, and practice. (Formerly PE 10.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 109
THEORY OF COACHING BASEBALL **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course includes the study of the various aspects of coaching baseball. Topics include organizing the program, developing skills, offensive and defensive play strategies, and conditioning techniques. This course will assist coaches for youth league, high school and college teams.
Transfer Credit: CSU

PE 110#
THEORY OF TRACK AND FIELD **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
This course is designed to introduce the basic fundamentals of coaching the events in track and field. (Formerly PE 10.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 112#
THEORY OF FOOTBALL **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course gives students an understanding of how to coach and teach the skills, principles, and philosophy of offensive and defensive football. (Formerly PE 97.1/PE 10.4).
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 113#
PROFESSIONAL ACTIVITIES FOR CO-ED SPORTS I **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course is designed to present the theory and practice of water safety and life saving techniques. It leads to American Red Cross Advanced Life Saving and Water Safety Certificate. This course is recommended for all physical education, recreation, and recreation aide majors, but is open to other interested students. (Formerly PE 12.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 116#
PROFESSIONAL ACTIVITIES FOR MODERN DANCE **3 UNITS**
Class hours: 5 hrs lecture/activity
Prerequisite: None.
This course is designed to give prospective teachers of physical education a comprehensive background in the theory and techniques of modern dance. (Formerly PE 12.5)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 117#
PROFESSIONAL ACTIVITIES FOR WOMEN'S SPORTS I **3 UNITS**
Class hours: 5 hrs lecture/activity
Prerequisite: None
This course is designed to teach the theory and practice of volleyball, basketball, field hockey, and flag football. (Formerly PE 14.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PE 118#
PROFESSIONAL ACTIVITIES FOR WOMEN'S SPORTS II **3 UNITS**
Class hours: 5 hrs lecture/activity
Prerequisite: None
The course is designed to teach the theory and practice of softball, soccer, speed-a-way, and track and field. (Formerly PE 14.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

PHYSICAL EDUCATION ACTIVITIES

All physical education activities classes may be repeated for credit. Students are urged to participate in a variety of courses which will give them a well-rounded schedule of vigorous activity combined with life-time sports which will have carry-over value. Students may take any P.E. activity class on a credit/no credit basis. It is the responsibility of the student to apply for this sometime during the first four weeks of each semester.

PE 2 (Not degree applicable)
INDIVIDUALIZED ATHLETIC DEVELOPMENT **0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide students the individualized opportunity to acquire and practice the athletic skills necessary for enhanced participation in their sport or activity of choice. (Formerly PE 91)

PE 3 (Not degree applicable)
INDIVIDUALIZED DANCE DEVELOPMENT **0 UNIT**
Class hours: 4 lab (17 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide students the individualized opportunity to acquire and practice the dance skills necessary for participation in dance concerts, local and regional dance festivals and choreography competitions. (Formerly PE 46.5)

PE 31 (Not degree applicable)
FITNESS WALKING FOR OLDER ADULTS **0 UNIT**
Class hours: 2 lab (17 weeks)
Prerequisite; None.
Corequisite: None.
Recommendation: Medical clearance for

participation in an activity/fitness class.
This course is designed for older adults and will emphasize instruction and practice of walking techniques for speed, distance, and endurance. Information on aerobic conditioning, heart rate, stretching and stress reduction will be covered.

PE 32 (Not degree applicable)
LOW IMPACT AEROBICS FOR OLDER ADULTS **0 UNIT**
Class hours: 3 lab (17 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Medical clearance for participation in an activity/fitness class.
This aerobics course involves instruction focusing on the needs of the middle-aged and older adults. Emphasis is placed on the development of cardiorespiratory endurance, flexibility, strength, balance and postural alignment. Special attention is paid to medical conditions.

PE 34 (Not degree applicable)
WATER AEROBICS FOR OLDER ADULTS **0 UNIT**
Class hours: 3 lab (17 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Medical clearance for participation in an activity/fitness class.
This water aerobics course involves fitness instruction performed in a shallow pool focusing on needs of the middle-aged and older adults. Emphasis is placed on the development of cardiorespiratory endurance, flexibility, strength, balance and postural alignment. Special attention is paid to medical conditions. No swimming skills are required.

PE 36 (Not degree applicable)
ACTIVE OLDER ADULT CHAIR AEROBICS **0 UNIT**
Class hours: 3 lab (17 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Medical clearance for participation in an activity/fitness class.
This course is designed to meet the needs of older adults who want practical instruction in ways to improve their cardiovascular endurance, balance, coordination, and flexibility through various seated and standing chair activities and stretching movements. Lectures may include principles of safe and effective exercise, improving activities of daily living and quality of life, significance of body composition and basic nutrition.

PE 38 (Not degree applicable)
YOGA FOR OLDER ADULTS **0 UNIT**
Class hours: 2 lab (17 weeks)
Prerequisite: None.
Corequisite; None.
Recommendation: Medical clearance for participation in an activity/fitness class.
The course is an introduction to yoga based on basic yoga practices and principles with a focus on the special needs of middle-aged and older people. Instruction will include yoga postures, guided relaxation, and breathing practices with adaptation when necessary to such medical conditions as cardiovascular disease, arthritis, hip surgery and osteoporosis. Benefits of yoga include increased flexibility, strength, balance, and body awareness, as well as stress reduction.

PE 125
WATER SAFETY INSTRUCTOR (WSI) **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: PE 150B or equivalent, 17 years of age or older and CPR card. Competence in fundamentals of backstroke, sidestroke, breaststroke, crawl and diving.
This course is offered with the authorization of the American Red Cross to provide students with Instructor Candidate Training (ICT), along with the Water Safety Instructor (WSI). It is a comprehensive analysis of principles of movement, organizational strategies utilized in presenting aquatic activities and advanced swimming skills. It also includes an opportunity to qualify for the American Red Cross Water Safety Instructor certification. This course may be taken for a maximum of 8 units. (Formerly PE 21.2)
Transfer Credit: CSU; UC

PE 130
STRETCHING AND RELAXATION **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course emphasizes the development of flexibility in muscles and joints to prevent injury and improve posture and body alignment. Relaxation techniques and stretching improve general wellness as they become part of lifestyle. This course may be taken for a maximum of 4 units. (Formerly PE 30.2)
Transfer Credit: CSU

PE 131##
WALKING FOR FITNESS **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will emphasize instruction and practice of walking techniques for speed, distance and endurance. Information on aerobic conditioning, heart rate, stretching and stress reduction will be covered. This course may be taken for a maximum of 4 units. (Formerly PE 30.4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 132A##
LOW IMPACT AEROBICS **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Student will receive practical instruction in ways to improve their cardiovascular endurance, flexibility and body composition through various low impact aerobic activities. Lectures may include the areas of basic nutrition, body composition, posture analysis and principles of safe and effective exercise. This course may be taken for a maximum of 6 units. (Formerly PE 33.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 132B##
AEROBIC ACTIVITIES **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
This course is designed to meet the needs of students who want practical instruction in ways to improve their cardiovascular endurance and flexibility through various aerobic activities and stretching movements. Lectures may include areas of basic nutrition, body composition, posture analysis and principles of safe and effective exercise. This course may be taken for a maximum of 6 units. (Formerly PE 33.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 133
STEP AEROBICS **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed as a contemporary

workout to improve each participant's strength and cardiovascular fitness level through steady-state stepping movements that will improve health. Students will be exposed to a graduated, continuous system of rhythmic stepping at various platform heights, emphasizing strength, flexibility, and endurance. The class will include proper body alignment and mechanics, basic nutrition, injury prevention, strength training, and personal fitness assessment. This course may be taken for a maximum of 6 units. (Formerly PE 33.3)

PE 134##
WATER AEROBICS **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This water aerobics exercise class emphasizes development of cardiorespiratory endurance, flexibility and muscle tone. No swimming skills are required. This course may be taken for a maximum of 4 units. (Formerly PE 33.4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 135A##
CIRCUIT WEIGHT TRAINING, BEGINNING **1 UNIT**
Class hours: 0.5 lecture/1 .5 lab
Prerequisite: None.
This course covers the fundamentals and techniques of circuit weight training with the use of machines, barbells, dumbbells, jump ropes, and other equipment in the development of an improved level of fitness and physical condition. This course may be taken for a maximum of 2 units. (Formerly PE 31.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 135B##
CIRCUIT WEIGHT TRAINING, INTERMEDIATE / ADVANCED **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course will consist of applied theory as well as physical conditioning. Students will use three types of exercise to reach goals: Isotonic, Isometric, and Isokinetic. Individual instruction will be given along with the discussion of strengths, weaknesses, and nutritional needs of each individual. This course may be taken for a maximum of 4 units. (Formerly PE 31.4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 138##
YOGA **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to Yoga based on basic yoga practices and principles. Instruction will include yoga postures, guided relaxation, and breathing practices. Benefits of yoga include increased flexibility, strength, balance, and body awareness, as well as stress reduction. This course may be taken for a maximum of 4 units. (Formerly PE 30.3)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 139##
PILATES CONDITIONING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide a physical and mental conditioning program involving exercises based on the Pilates technique. These exercises are designed to increase body awareness by increasing circulation, flexibility, and muscular strength. This course may be taken for a maximum of 4 units.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 141##
FITNESS AND WELLNESS **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course is designed to cover topics related to health and wellness including principles of fitness, nutrition, coronary heart disease, and stress management. An exercise lab will include pre-and-post assessment of each student's fitness components such as cardiovascular fitness, muscular strength and endurance, flexibility and body composition. Individualized exercise prescription is provided for each student to improve his/her fitness components. Progress is monitored throughout the semester. This course may be taken for a maximum of 6 units. (Formerly PE 30.6)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 142##
FITNESS AND WELLNESS FOR OLDER ADULTS **2 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: Medical Clearance from Physician.
This course is designed for older adults and includes an exercise program consisting of mild cardiovascular, stretching, and weight lifting activities. Testing is provided to determine a physical assessment of the individual for cardiovascular fitness, body composition, strength, and flexibility. Students establish their own training program and participate in the above activities, based on the recommended exercise prescription. Lectures provide information on nutrition, stress management, conditioning, and diet related to the special interests, and diet needs of the aging and older adults. This course may be taken for a maximum of 4 units. (Formerly PE 30.7)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 143##
PERSONAL FITNESS PROGRAM **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed as an exercise program consisting of cardio-respiratory, stretching, weight training activities. Testing will be provided to determine physical assessment and improvement in the areas of flexibility, strength, endurance, aerobic fitness, and body composition. Each student will establish and practice his or her training program based on recommended exercises. This course may be taken for a maximum of 4 units. (Formerly PE 30.8)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 144L##
EXERCISE PHYSIOLOGY LABORATORY TECHNIQUES **2 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
This course offers individuals a background in working with various instruments used in exercise testing. Discussions will include the scientific bases for the exercise tests. (Formerly PE 69.7/PE 30.9)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 145##
BASIC TRAINING AND PHYSICAL CONDITIONING 1 UNIT
Class hours: 0.5 lecture/2.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a high-energy course incorporating sport-specific activities and physical drills. Training will improve sports performance, as well as have a conditioning effect. Participants entering this class should be at an intermediate to advanced fitness level. This class may be taken for a maximum of 4 units. (Formerly PE 135)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 146
WEIGHT MANAGEMENT 1.5 UNITS
Class hours: 1 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide strategies for weight management. It will include discussion in the physical, emotional, and nutritional components of a successful weight management plan and provide the opportunity for each student to establish and practice an individualized program. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

PE 147
TRIATHLON BASICS 1 UNIT
Class hours: 0.5 lecture/2.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Clearance from a medical professional.
This class studies the sport of triathlon. Students will learn the basics of swimming skills, bicycling techniques, running drills, and muscular endurance training. Participants entering this class should be at an intermediate to advanced fitness level. Upon completion of the class, participants will be able to finish a spring distance triathlon. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

PE 150A##
SWIMMING, BEGINNING 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Fundamental swimming strokes, elementary diving and water safety. This course may be taken for a maximum of 2 units. (Formerly PE 20.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 150B##
SWIMMING, INTERMEDIATE / ADVANCED 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Intensive drill in backstroke, sidestroke, breaststroke and crawl. Fundamentals of diving and water polo. This course may be taken for a maximum of 4 units. (Formerly PE 20.3)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 151##
WRESTLING, BEGINNING 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to provide instruction and practice in the fundamentals of wrestling. This course may be taken for a maximum of 4 units. (Formerly PE 31.8)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 153A##
BACKPACKING, BEGINNING 2 UNITS
Class hours: 1 lecture/3 lab with one three-day field trip.
Prerequisite: None.
This course provides the student with the knowledge and skills necessary for all-season, off-trail backpacking. A backpack trip of at least three days at the end of the course will be required. Student will be expected to furnish their own backpacking equipment. This course may be taken for a maximum of 4 units. (Formerly PE 40.4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 153B##
BACKPACKING, ADVANCED 2 UNITS
Class hours: 1 lecture/2 lab with two 4+A 6 day field trip or one 9 day field trip.
Prerequisite: PE 153A or equivalent with a grade of Credit or "C" or higher.
This course is designed to provide the student with advanced skills and knowledge used in extensive all-season, cross-country backpacking. Emphasis will be placed on survival and navigational skills. Two trips of 4 1/2 days (or one 9-day trip in summer session) will be required. Students will be expected to furnish their own backpacking equipment. This course may be taken for a maximum of 4 units. (Formerly PE 40.6)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 154A##
BADMINTON, BEGINNING 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Emphasis will be on fundamental strokes and court techniques for singles, doubles, and mixed doubles. This course may be taken for a maximum of 2 units. (Formerly PE 40.7)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 154B##
BADMINTON, INTERMEDIATE / ADVANCED 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course is designed for badminton players wishing to improve skills and techniques. Emphasis will be on improving form and court strategy in offensive and defensive play. Interclass competition will be held. This course may be taken for a maximum of 4 units. (Formerly PE 40.9)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 155A##
BOWLING, BEGINNING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
The fundamental theory, techniques, rules, etiquette and scoring of bowling will be emphasized. This course may be taken for a maximum of 2 units. (Formerly PE 40.13)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 155B##
BOWLING
INTERMEDIATE / ADVANCED **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to help the student improve their skill in bowling by correction of individual faults, advanced lane and adjustment techniques and opportunity for league competition in the class. Additional areas of knowledge will include league organization and psychology of competition. This course may be taken for a maximum of 2 units. (Formerly PE 40.15)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 156A##
GOLF, BEGINNING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to teach fundamental techniques of grip, alignment, stance and swing for irons, woods, and putting. This course may be taken for a maximum of 2 units. (Formerly PE 40.16)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 156B##
GOLF,
INTERMEDIATE / ADVANCED **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course provides group and individualized instruction to develop and improve the more technical and advanced golf strokes. Specialized strokes include those used in sand traps, side hill and down hill lies, tee shots, and advanced putting techniques. Golf playing strategy for use on the course will be presented. Professional Golf Association (PGA) rules and etiquette will be emphasized. Students will play competitive golf in class. This course may be taken for a maximum of 4 units. (Formerly PE 40.18)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 158A##
RACQUETBALL, BEGINNING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
The emphasis will be on fundamental strokes, techniques of playing, rules and strategy of racquetball for doubles, singles, and "cut-throat" play. This course may be taken for a maximum of 2 units. (Formerly PE 40.25)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 158B##
RACQUETBALL,
INTERMEDIATE / ADVANCED **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course is designed to provide fundamental techniques and rules of racquetball. Strategies, offensive and defensive deployments in singles and doubles will be addressed. This course may be taken for a maximum of 4 units. (Formerly PE 40.27)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 159A##
TENNIS, BEGINNING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course will cover fundamental stroke techniques for singles and doubles. The history of tennis, playing area, tennis vocabulary, etiquette and rules will be included. This course may be taken for a maximum of 2 units. (Formerly PE 40.34)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 159B##
TENNIS,
INTERMEDIATE / ADVANCED **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course is designed for those players wishing to increase skills in tennis. An emphasis will be on improvement of form, strokes, and serves. Intra-class competition will be held. This course may be taken for a maximum of 4 units. (Formerly PE 40.36)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 160##
PERSONAL SELF DEFENSE **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
A course designed to provide women with specific attitudes, knowledge and skills useful in self-defense. This course may be taken for a maximum of 4 units. (Formerly PE 60.4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 170##
WATER POLO **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
During this course, the student will learn the skills of water polo, which include physical skill development, conditioning, game strategy and terminology. This course may be taken for a maximum of 8 units. (Formerly PE 20.7)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 171A##
SOFTBALL **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to provide students with the knowledge and practical skills necessary to effectively participate in softball. This course may be taken for a maximum of 2 units. (Formerly PE 40.32)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 171B##
SOFTBALL,
INTERMEDIATE / ADVANCED **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course is designed to provide students with advanced knowledge and practical skills necessary to effectively participate in Fast Pitch softball. Emphasis will be placed on skills which will prepare the students to

compete on the intercollegiate softball team. This course may be taken for a maximum of 4 units. (Formerly PE 40.33)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 171C##
SLOW-PITCH SOFTBALL 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to provide students with the knowledge and practical skills necessary to effectively participate in slow-pitch softball. In slow-pitch softball the ball is thrown slowly, traveling in an arc. This course may be taken for a maximum of 2 units. (Formerly PE 40.31)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 172A##
VOLLEYBALL, BEGINNING 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to develop the students' understanding of the basic fundamentals of volleyball by instruction and practice in setting, passing, hitting and team play. This course may be taken for a maximum of 2 units. (Formerly PE 40.37)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 172B##
VOLLEYBALL,
INTERMEDIATE / ADVANCED 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
A course designed for students wishing to improve form, learn advanced skills and court strategies in volleyball. Intra-class competition will be held. This course may be taken for a maximum of 4 units. (Formerly PE 40.39)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 173
SOCCER
FITNESS AND TECHNIQUE 1 UNIT
Class hours: .5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This class is designed to develop soccer technique through a conditioning based program. The class will incorporate soccer fitness training while building a foundation of skill development and progression. This course may be taken for a maximum of 2 units.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 175A##
BASEBALL, BEGINNING 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to present the fundamental techniques, rules and etiquette of the sport of baseball. This course may be taken for a maximum of 2 units. (Formerly PE 50.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 175B##
BASEBALL,
INTERMEDIATE / ADVANCED 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
The course is designed to improve individual techniques for baseball players. Team competitive play situations will be provided in order to increase students' skills, knowledge, and strategy. This course may be taken for a maximum of 4 units. (Formerly PE 50.3)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 176A##
BEGINNING BASKETBALL 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course will include instruction and practice in shooting, passing, offensive play, individual and team defense. This course may be taken for a maximum of 2 units. (Formerly PE 50.4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 176B##
BASKETBALL, ADVANCED 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Team competitive play situations will be provided in order to increase students' skills, knowledge, and strategy. This course may be taken for a maximum of 4 units. (Formerly PE 50.6)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 177##
FLAG FOOTBALL 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This course is designed to teach the fundamental theory and skills involved in the game of flag football. This course may be taken for a maximum of 4 units. (Formerly PE 50.10)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 178##
FOOTBALL,
INTERMEDIATE / ADVANCED 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course is designed to teach individual techniques of offense and defense in football. It is recommended for physical education majors and those interested in varsity competition. This course may be taken for a maximum of 8 units. (Formerly PE 50.12)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 179A##
SOCCER, BEGINNING 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
This class is designed to introduce theory and practice in the fundamental skills and techniques of soccer. Proper conditioning will be stressed. This course may be taken for a maximum of 2 units. (Formerly PE 50.13)
*Transfer Credit: CSU; UC**
*UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.

PE 179B##
SOCCER,
INTERMEDIATE / ADVANCED 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Must demonstrate some knowledge of basic Soccer skills.
This course is designed to deal with advanced techniques, skills, and tactics for soccer players. It is recommended for those interested in varsity competition. This course may be

taken for a maximum of 4 units. (Formerly PE 50.15)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 180
INTRODUCTION TO DANCE MOVEMENT **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
Students will study dance movement in three basic styles: ballet, modern and jazz. For each form, proper body alignment, stretching and styling techniques will be presented in a dance class format. This includes warm-ups, progressions and dance combinations. This course may be taken for a maximum of 12 units. (Formerly PE 45)
Transfer Credit: CSU; UC

PE 181
INTRODUCTION TO DANCE CULTURES OF THE WORLD **2 UNITS**
Class hours: 4 activity
Prerequisite: None.
Students will study dance styles representative of different cultures and nationalities. Introduction to many different dance forms will be explored, taking into consideration historical background, related folklore and how dance differs from culture to culture. This course may be taken for a maximum of 8 units. (Formerly PE 45.1)
Transfer Credit: CSU; UC

PE 182A
DANCE, MODERN, BEGINNING **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Students will study the expressive body movements in a creative art form. Emphasis will be on developing modern dance skills and technique as well as conditioning the body by improving posture, flexibility, strength, and coordination. This course may be taken for a maximum of 4 units. (Formerly PE 45.10)
Transfer Credit: CSU; UC

PE 182B
DANCE, MODERN, INTERMEDIATE **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Students will study intermediate level modern skills and will utilize basic movement and music principles to choreograph dance sequences. This course may be taken for a maximum of 4 units. (Formerly PE 45.12)
Transfer Credit: CSU; UC

PE 183
DANCE PRODUCTION **2 UNITS**
Class hours: 4 activity
Prerequisite: None.
Students will study the elements of dance production such as choreography, lighting, design, costume design, music, and concert publicity. Students will choreograph and perform in the concert or work backstage as part of the technical crew. This course may be taken for a maximum of 8 units. (Formerly PE 45.13)
Transfer Credit: CSU; UC

PE 184
CHOREOGRAPHY **2 UNITS**
Class hours: 4 lab
Prerequisite: None.
Students will study the elements of dance composition as well as learn about well known choreographers and their work. The study will include the selection of movement appropriate to the meaning of a dance, the arrangements of movement in space, and the overall design of the dance and its staging. This course may be taken for a maximum of 4 units. (Formerly PE 45.14)
Transfer Credit: CSU; UC

PE 185
PARTNERING FOR DANCE **2 UNITS**
Class hours: 1 lecture/3 lab
Corequisite: None.
Students will study partner dancing involving groups of two or more dancers. It will serve as an introduction to the art of partnering in modern, jazz, and classical choreography. Not limited to male/female partnering, students will study choreography involving any body contact or shifting of weight from one individual to another. This course may be taken for a maximum of 4 units. (Formerly PE 45.15)
Transfer Credit: CSU; UC

PE 186A
BEGINNING BALLET **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Students will study basics of ballet terminology and technique. Emphasis is on body alignment, coordination and musicality. This course may be taken for a maximum of 4 units. (Formerly PE 45.17)
Transfer Credit: CSU; UC

PE 186B
INTERMEDIATE BALLET **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Students will study the advanced terminology and technique of classical ballet. This course may be taken for a maximum of 4 units. (Formerly PE 45.18)
Transfer Credit: CSU; UC

PE 187
DANCE REPERTORY **2 UNITS**
Class hours: 4 lab
Prerequisite: None.
Students will study a repertory of dances in the styles of ballet, modern, jazz, ethnic, and dance theatre. The advanced student will participate in performances on campus as well as in the community. This course may be taken for a maximum of 8 units. (Formerly PE 46)
Transfer Credit: CSU; UC

PE 188
DANCE PERFORMANCE **2 UNITS**
Class hours: 4 lab/rehearsal.
Prerequisite: None.
Students will study the aspects of dance performance through participation in the semester dance concert. Emphasis is placed on improving classroom dance technique and elevating skills to a performance level. This course may be taken for a maximum of 8 units. (Formerly PE 46.1)
Transfer Credit: CSU; UC

PE 189
DANCE WORKSHOP **2 UNITS**
Class hours: 4 lab
Prerequisite: None.
Students will study the technical dance skills in ballet, jazz and modern dance. The course includes exploration of the elements of composition and affords the opportunity to experiment with improvisation and set choreography. Students will work on individual and group projects and participate in the faculty dance concert. This course may be taken for a maximum of 8 units. (Formerly PE 46.2)
Transfer Credit: CSU; UC

PE 190
DANCE NOTATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Students will study basic dance notation with in-depth work in elementary Labanotation and an introduction to Benesh and Kineseography notation systems. These systems are taught by using graphs, musical scores, and stick figures or drawings. (Formerly PE 46.3)
Transfer Credit: CSU; UC

PE 191
HISTORY OF DANCE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Students will study dance history from ancient to modern times, beginning with tribal, ethnic and folk dance and on through contemporary ballet, modern and jazz dance. (Formerly PE 46.4)
Transfer Credit: CSU; UC

PE 192
DANCE AND DIGITAL TECHNOLOGY **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The student will study how technology has historically and traditionally been used in the field of dance. Emphasis will be placed on the various technologies that currently impact the art of dance. The majority of topics in the course will be related to the art of dance.
Transfer Credit: CSU

PE 193
INTRODUCTION TO BALLROOM DANCE **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to introduce ballroom dancing through the understanding of history, music, and performance opportunities. Basic steps, variations and styling techniques for the fox trot, waltz, swing, cha cha, tango, bolero, rhumba, samba and other selected styles will be included. This course may be taken for a maximum of 8 units.
Transfer Credit: CSU; UC

PE 194
BALLET VARIATIONS **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to continue the development of technical ballet skills with emphasis on developing physical and artistic expression through the execution of classical and contemporary variations. This course may be taken for a maximum of 8 units.
Transfer Credit: CSU; UC

PE 195
COMMERCIAL DANCE **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to emphasize movement for commercial dance work used in film, concert dance, television and industrial shows and commercials. It offers instruction in current trends of popular dance. This course may be taken for a maximum of 8 units.
Transfer Credit: CSU; UC

PE 196
LATIN SOCIAL DANCE **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an overview of Latin social dance including tango, salsa, meringue, paso doble, bolero, mambo and cha cha. Areas of study include movement theory, dance, vocabulary, performance, etiquette and dance history. This course may be repeated for a maximum of 8 units.
Transfer Credit: CSU; UC

PE 201##
BASEBALL OFF-SEASON CONDITIONING **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide the physical training and preparation to become a competitive baseball athlete. Muscular balance for position specific needs is attained through principles ranging from interval training to resistance training. This course will improve strength, flexibility, endurance and agility. This course may be taken for a maximum of 8 units. (Formerly PE 50.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 207##
CROSS COUNTRY CONDITIONING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course presents techniques for cross-country preseason conditioning and training. This course may be taken for a maximum of 4 units. (Formerly PE 31.6)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 211##
FOOTBALL CONDITIONING (OLYMPIC WEIGHTS - POWER LIFTING) **2 UNITS**
Class hours: 1 lecture/3 lab
Corequisite: None.
This course is designed to prepare students for athletic competition in football. It is an intensive power training program based on the overload principle. This course uses Olympic weights in a structured program that primarily builds power. It does not use isometric or cardiovascular training. This course may be taken for a maximum of 8 units. (Formerly PE 41.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 212##
FOOTBALL TRAINING AND TECHNIQUES **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
This course will consist of in-season conditioning, theory of play, opponent evaluation, and goal setting for football. The student will be instructed in each of the above to develop a successful physical and mental approach to weekly contests. This course may be taken for a maximum of 4 units. (Formerly PE 50.11)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 222##
SOFTBALL PRE-SEASON CONDITIONING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The training and preparation to become a competitive softball athlete involves more than the learning of basic skills. This course will include aerobic conditioning, strength and flexibility conditioning and agility skills. This

course may be taken for a maximum of 4 units. (Formerly PE 40.42)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 228##
TENNIS CONDITIONING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Corequisite: None.
This class will provide training and drills necessary to develop skills and knowledge to compete on a college tennis team. Physical conditioning, aerobics, strength and agility drills will be used. This course may be taken for a maximum of 4 units. (Formerly PE 40.41)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 234##
TRACK AND FIELD
CONDITIONING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
The techniques and training of track and field events are combined in a preseason conditioning program during the fall of the year. This course may be taken for a maximum of 4 units. (Formerly PE 31.5)
*Transfer Credit: UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 236##
VOLLEYBALL
PRE-SEASON CONDITIONING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Corequisite: None.
This course is designed to cover the following three areas: 1) analysis and training of volleyball skills including specialized positions, 2) analysis of various team offensive and defensive systems, and 3) physical conditioning including jump training, strength training and aerobic conditioning. This course may be taken for a maximum of 4 units. (Formerly PE 40.40)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 238##
WRESTLING
OFF SEASON TRAINING **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide the physical training and preparation to become a competitive college wrestler. It will be an intensive power-training program based on the overload principle. The course will improve strength, flexibility, and endurance. This course may be repeated for a maximum of 8 units.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

INTERCOLLEGIATE ATHLETICS

PE 137
SONG UNIT **2 UNITS**
Class hours: 6 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to develop, improve and implement the skills necessary to be an effective songleader at the community college level. This course may be taken for a maximum of 8 units. (Formerly PE 92.1)
Transfer Credit: CSU

PE 245
PEP UNIT **2 UNITS**
Class hours: 6 lab
Prerequisite: None.
This course is designed to develop, improve and implement the skills necessary to be an effective cheerleader at the community college level. This course may be taken for a maximum of 8 units. (Formerly PE 92)
Transfer Credit: CSU

PE 200##
BASEBALL **3 UNITS**
Class hours: 10 hrs per week -
Daily practice (Spring only)
Prerequisite: None.
This course is designed to develop the student for intercollegiate competition in baseball. Skill techniques, good sportsmanship, team play, and strategy will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 72)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 202##
BASKETBALL, MEN **3 UNITS**
Class hours: 10 hrs per week -
Daily practice (Fall only)
Prerequisite: None.
Training for intercollegiate competition in basketball. This course may be taken for a maximum of 12 units. (Formerly PE 73.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 204##
BASKETBALL, WOMEN **3 UNITS**
Class hours: 10 hrs per week -
Daily practice (Fall only)
Prerequisite: None.
This course will include training for intercollegiate competition in women's basketball. It includes daily practice of two hours plus an intercollegiate game schedule. Conditioning for competition will be stressed. This course may be taken for a maximum of 12 units. (Formerly PE 73.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 206##
CROSS COUNTRY, MEN **3 UNITS**
Class hours: 10 hrs per week -
Daily practice (Fall only)
Prerequisite: None.
This course is designed to develop the student for intercollegiate competition in cross-country running. Proper warm-up exercises and conditioning will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 74.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 208##
CROSS COUNTRY, WOMEN **3 UNITS**
Class hours: 10 hrs per week -
Daily practice (Fall only)
Prerequisite: None.
This course is designed to provide training for women in intercollegiate competition in cross-country. This course may be taken for a maximum of 12 units. (Formerly PE 74.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 210##

FOOTBALL, MEN **3 UNITS**

Class hours: 10 hrs per week - Daily practice (Fall only)
Prerequisite: None.
This course is designed to provide training for intercollegiate competition in football. Individual skill techniques, good sportsmanship, team play, and strategy will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 75)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 213##

INTERCOLLEGIATE GOLF **3 UNITS**

Class hours: 10 hours activity Daily Practice (Spring only)
Prerequisite: None.
This class prepares students for intercollegiate competition in golf and gives them an opportunity to participate in this competition. This course may be taken for a maximum of 12 units. (Formerly PE 76)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 217##

SOCCER, MEN **3 UNITS**

Class hours: 10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Training for intercollegiate competition in soccer. This course may be taken for a maximum of 12 units. (Formerly PE 80.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 219##

SOCCER, WOMEN **3 UNITS**

Class hours: 10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Training for intercollegiate competition in soccer. This course may be taken for a maximum of 12 units. (Formerly PE 80.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 221##

SOFTBALL, WOMEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Spring only)
Prerequisite: None.
Training for intercollegiate competition in women's softball. This course may be taken for a maximum of 12 units. (Formerly PE 81)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 223##

SWIMMING, MEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Spring only)
Prerequisite: None.
Training for intercollegiate competition in swimming. This course may be taken for a maximum of 12 units. (Formerly PE 82.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 225##

SWIMMING, WOMEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Spring only)
Prerequisite: None.
This course is designed to provide training for women in intercollegiate competitive swimming. Emphasis will be on conditioning and stroke analysis. This course may be taken for a maximum of 12 units. (Formerly PE 82.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 227##

TENNIS, MEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Spring only)
Prerequisite: None.
This course is designed to provide training for intercollegiate competition in tennis for men. Conditioning, skills, techniques, court strategy, and rules of play will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 83.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 229##

TENNIS, WOMEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Spring only)
Prerequisite: None.
This course will prepare students for competition in women's tennis. Emphasis will be on conditioning and learning competitive strategy and techniques. This course may be taken for a maximum of 12 units. (Formerly PE 83.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 231##

TRACK AND FIELD, MEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Spring only)
Prerequisite: None.
This course is designed to develop the student for intercollegiate competition in track and field events. Individual techniques and skills for different events will be emphasized. Proper warm-up exercises for different events will be stressed. This course may be taken for a maximum of 12 units. (Formerly PE 84.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 233##

TRACK AND FIELD, WOMEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Spring only)
Prerequisite: None.
This course is designed to develop the student for intercollegiate competition in Track and Field events. Individual techniques and skills for different events will be emphasized. Proper warm-up exercises for different events will be stressed. This course may be taken for a maximum of 12 units. (Formerly PE 84.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 235##

VOLLEYBALL, WOMEN **3 UNITS**

Class hours: 10 hrs per week - Daily Practice (Fall only)
Prerequisite: None.
This course is designed to provide training for intercollegiate competition in women's volleyball. It involves daily practice of two hours plus an intercollegiate match schedule. Conditioning for tournament play will be

stressed. This course may be taken for a maximum of 12 units. (Formerly PE 85.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 239##
WATER POLO - MEN **3 UNITS**
Class hours: 10 hrs per week - Daily practice (Fall only)
Prerequisite: None.
Training for intercollegiate competition in water polo. This course may be taken for a maximum of 12 units. (Formerly PE 86)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 241##
WATER POLO – WOMEN **3 UNITS**
Class hours: 10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Training for intercollegiate competition in water polo. This course may be taken for a maximum of 12 units. (Formerly PE 86.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

PE 243##
WRESTLING **3 UNITS**
Class hours: 10 hrs per week - Daily practice (Fall only)
Prerequisite: None.
This course is designed to provide training for intercollegiate competition in wrestling. Individual skills, proper conditioning, and warm-up exercises will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 87)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

SPECIAL PHYSICAL EDUCATION ACTIVITIES

PE 120##
SEDENTARY ACTIVITIES FOR STUDENTS WITH DISABILITIES **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Recommendation: Completed adapted physical education physician health clearance for participation, adapted physical education health history questionnaire, intake interview assessment procedures.
This course is designed for the student who is not able to participate in virtually any physical activity course due to a disability. An individualized sedentary activity program will be tailored to the physical abilities and disabilities of the student. This course may be taken for a maximum of 4 units. (Formerly PE 95.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 121##
ADAPTED CARDIOVASCULAR EXERCISE **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Recommendation; Completed adapted physical education physician health clearance for participation, adapted physical education health history questionnaire, intake interview assessment procedure.
This course is designed to develop the general fitness level for the disabled students who may not be placed in a regular activity course. This course may be taken for a maximum of 4 units. (Formerly PE 95.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 122##
ADAPTED STRENGTH TRAINING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Recommendation: Completed adapted physical education physician health clearance for participation, adapted physical education health history questionnaire, intake interview assessment procedures.
This course is designed for the student who is not able to participate in the standard circuit weight-training program due to a disability. An individualized weight-training program will be tailored to the physical abilities and disabilities of the student. This course may be taken for a maximum of 4 units. (Formerly PE 95.3)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 123##
ADAPTED SWIMMING **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Recommendation: Completed adapted physical education physician health clearance for participation, adapted physical education health history questionnaire, intake interview assessment procedures.
This course is designed for the student who is unable to participate in a regular swimming course due to a disability. Improvement in basic swimming and water safety skills along with other pool activities such as hydroexercises and mobility activities will be included. This course may be taken for a maximum of 4 units. (Formerly PE 95.4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 124##
WHEELCHAIR ACTIVITIES **1 UNIT**
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Recommendation: Completed adapted physical education physician health clearance for participation, adapted physical education health history questionnaire, intake interview assessment procedures.
This course is designed to develop the general fitness level for the wheelchair bound student through a variety of modified sport activities. This course may be taken for a maximum of 4 units. (Formerly PE 95.5)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PHYSICAL SCIENCE

(Science / Engineering / Math Division)

PS 100
PHYSICAL SCIENCE OF MODERN TECHNOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
This is a lecture/demonstration course especially designed to develop an understanding of basic science facts and concepts for non-science majors. Study of the sciences that make our technological world possible will be stressed. (Formerly PS 20)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. No credit for PS 100 if taken after a college course in Astronomy, Chemistry, Geology or Physics.*

PS 112
PHYSICAL SCIENCE FOR ELEMENTARY SCHOOL TEACHERS **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: MATH 105 or MATH 110A or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
Corequisite: None.
Recommendation: None.
This course is an introduction to basic physical science facts and concepts. The physical sciences that make our technological world possible will be studied. This course is designed to give a general introduction to fundamental concepts and to prepare students for teaching at the elementary school level.
Transfer Credit: CSU

PHYSICAL THERAPIST ASSISTANT

(Health Occupations Division)

PTA 100
PREPARING FOR CAREERS IN PHYSICAL THERAPY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the field of physical therapy in the rehabilitation setting. Topics covered include documentation in the medical record, interviewing patients, therapeutic interaction with patients and their caregivers, problem identification and helpful responses, assertive roles in rehabilitation, cultural sensitivity, working with persons with disabilities, and patient/family teaching.
Transfer Credit: CSU

PTA 110
INTRODUCTION TO PHYSICAL THERAPY **4 UNITS**
Class hours: 3 lecture/3 lab (Fall only)
Prerequisite: A&P 130 or equivalent with a grade of Credit or "C" or higher; acceptance into the Physical Therapist Assistant Program.
This course will introduce the student to the history and ethics of physical therapy as they relate to the health care system; the development of the team approach and the philosophy of rehabilitation; the use of physical agents and interventions; body mechanics and proper handling of patients; vital signs and their relationship to patient care. (Formerly PTA 10)
Transfer Credit: CSU

PTA 120
KINESIOLOGY **4 UNITS**
Class hours: 3 lecture/3 lab (Fall only)
Prerequisite: A&P 130 or equivalent with a grade of Credit or "C" or higher.
Corequisite: PTA 110.
This course is the study of biomechanical principles of human movement and locomotion including specific kinesiological functions of muscles and muscle groups, characteristics of normal posture and gait, and an introduction to the clinical manifestations of muscle dysfunction. Laboratory hours will be used for goniometry, gait observation, muscle action application, and practice. (Formerly PTA 20)
Transfer Credit: CSU

PTA 125
PATHOLOGY **3 UNITS**
Class hours: 3 lecture (Spring only)
Prerequisite: PTA 110 or equivalent with a grade of Credit or "C" or higher, current CPR Card - Course C.
Corequisite: PTA 126.
This course will include introduction to and instruction in observation of common pathological conditions. Emphasis will be placed on the following systems: musculoskeletal, circulatory, respiratory, gastrointestinal, and genitourinary. (Formerly PTA 25)
Transfer Credit: CSU

PTA 126
CLINICAL PRACTICUM I **4 UNITS**
Class hours: 221 variable semester lab hours
Prerequisite: None.
Corequisite: PTA 125.
This course is designed to give the student an initial exposure to physical therapy interventions. Students will practice application of heat and cold physical agents, gait and transfer training and medical record review under the direction of the physical therapy clinical instructor. The laboratory experience involves training in one or more physical therapy settings as designated by the instructor. Uniforms are required. This course is offered on a credit/no credit basis only. (Formerly PTA 25.10)
Transfer Credit: CSU

PTA 127
SOFT TISSUE INTERVENTIONS **2 UNITS**
Class hours: 2 lecture
Prerequisite: PTA 120 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course introduces students to interventions for the myofascial system. Content includes the philosophy of care, facilitation of mechanical, neurological and physiological changes and documentation of interventions. Specific topics covered are soft tissue injuries, treatment protocols, muscle adaptations, release, and scar tissue intervention.
Transfer Credit: CSU

PTA 128
PHYSICAL THERAPY ASPECTS OF GROWTH, DEVELOPMENT AND AGING **3 UNITS**
Class hours: 3 lecture.
Prerequisite: Acceptance to the Physical Therapist Assistant program and A&P 130 or equivalent with a grade of Credit or "C" or higher.
This course will introduce the student to concepts and physical therapy principles applied to the developmental process from gestation through aging. Emphasis will be placed on neurodevelopment techniques used for abnormal development and for patients with neurological or musculoskeletal disorders. (Formerly PTA 28)
Transfer Credit: CSU

PTA 230
THERAPEUTIC EXERCISE **4 UNITS**
Class hours: 3 lecture/3 lab (Fall only)
Prerequisite: PTA 125 or equivalent with a grade of Credit or "C" or higher.
This course is for second year physical therapist assistant majors. Therapeutic exercise introduces the student to the use of exercise as a preventive and intervention mechanism for pathological conditions which influence strength, endurance and flexibility of the human body. Emphasis is placed upon design and application of exercise, developmental sequence of exercise, types of exercise, and the use of exercise equipment. Instruction includes the body's physiological response to exercise. (Formerly PTA 30)
Transfer Credit: CSU

PTA 233
PROSTHETICS AND ORTHOTICS FOR ALLIED HEALTH PROFESSIONALS **2 UNITS**
Class hours: 2 lecture (Fall only)
Prerequisite: A&P 130 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the application of prosthetics and orthotic devices in the rehabilitation process of persons with disabilities. Included in the course is a survey of commonly used devices, principles of fitting and alignment, criteria for selection of various components, instruction in donning, removing and maintenance of prostheses and orthoses, patient education in use of devices,

and development of skill in fabrication of plaster positioning splints for upper and lower extremities. (Formerly PTA 33)
Transfer Credit: CSU

PTA 235
NEUROLOGY **3 UNITS**
Class hours: 3 lecture (Spring only)
Prerequisite: PTA 120 or equivalent with a grade of Credit or "C" or higher.
This course is designed to increase the student's knowledge in the anatomy and physiology of the nervous system. Information regarding the central, peripheral and autonomic systems is provided. Emphasis will be placed on the clinical manifestations of disease or injury to the nervous system as it relates to clinical problems encountered in physical therapy. (Formerly PTA 35)
Transfer Credit: CSU

PTA 236
CLINICAL PRACTICUM II **4 UNITS**
Class hours: 221 variable semester lab hours
Prerequisite: PTA 126 or equivalent with a grade of Credit or "C" or higher.
Corequisite: PTA 230.
This course is designed to teach the student the necessary intervention skills for physical therapy patient care. These skills will include active, passive and resistive exercise programs, as well as continued practice in physical agent application, gait and transfer training. Students will also learn fundamental procedures for clinical education from direct teaching and evaluation of learning. Laboratory experience involves training in one or more physical therapy settings as designated by the instructor. Student uniforms are required. This course is offered on a credit/no credit basis only. (Formerly PTA 35.10)
Transfer Credit: CSU

PTA 240
ACTIVITIES OF DAILY LIVING **2 UNITS**
Class hours: 2 lecture
Prerequisite: PTA 230 and PTA 236 or equivalent with grades of Credit or "C" or higher.
Corequisite: PTA 246.
This course will present instruction in the functional rehabilitation of the disabled. Emphasis will be on understanding and utilization of the physical therapy evaluation for implementation of intervention programs. This course will present clinical instruction activities of daily living training techniques, wheelchair fitting, Jobst measurement and professional presentations. (Formerly PTA 40)
Transfer Credit: CSU

PTA 245
ADVANCED MODALITIES **3 UNITS**
Class hours: 2 lecture/3 lab (Spring only)
Prerequisite: PTA 235 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the specific advanced physical therapy interventions and physical agents which are employed in the physical therapy clinic and which require greater expertise in their application. (Formerly PTA 45)
Transfer Credit: CSU

PTA 246 (Spring only)
CLINICAL AFFILIATION **4 UNITS**
Class hours: 13 lab (17 wks)
Prerequisite: PTA 230 and PTA 236 or equivalent with grades of Credit or "C" or higher.
Corequisite: PTA 240.
This course will provide supervised instruction in activities of daily living training techniques; wheelchair fitting; types of orthotic and prosthetic devices and their proper application; and splinting and bandaging procedures in selected clinical facilities. Experiences will be in acute rehabilitation or out-patient physical therapy settings. Student uniforms are required. This course is offered on a credit/no credit basis only. (Formerly PTA 40.10)
Transfer Credit: CSU

PHYSICS

(Science / Engineering / Math Division)

PHYS 50
PRINCIPLES OF TECHNOLOGY **3 UNITS**
Class hours: 2 lecture/2 lab/1 hr. lab arr.
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the Math Placement Process or completion of MATH 40 or MATH 42 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in principles of physics and its applications in a technological world. It will include applications of physical, mechanical, fluid, electrical and thermal systems. The course includes integrated labwork. (This course is not open to students with credit in PHYS 100 or higher.) (Formerly PHYS 25)

PHYS 100
ELEMENTARY PHYSICS **4 UNITS**
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: MATH 140 or equivalent with a grade of Credit or "C" or higher.
This course is a general survey of the basic principles of physics. It includes mechanics, heat, sound, electricity and magnetism, light, and modern physics with emphasis on mechanics. It is designed primarily as a prerequisite to courses in Engineering Physics. (Formerly PHYS 11)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. No credit for PHYS 100 if taken after PHYS 101 or PHYS 201.*

PHYS 101 (CAN PHYS SEQ A)
GENERAL PHYSICS **4 UNITS**
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: MATH 140 or equivalent with a grade of Credit or "C" or higher.
This course is designed to give students an understanding and appreciation of the basic principles governing the everyday happenings in the physical environment. The subjects covered are mechanics, heat and sound. (Formerly PHYS 2.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. PHYS 101, PHYS 102 combined with PHYS 201, PHYS 202 and PHYS 203: maximum credit, one series, deduct credit for duplication of topics.*

PHYS 102 (CAN PHYS SEQ A)
GENERAL PHYSICS **4 UNITS**
Class hours: 3 lecture/1 quiz/2 lab(Spring only)
Prerequisite: PHYS 101 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of PHYS 101. It includes electricity and magnetism, light, and modern physics. (Formerly PHYS 2.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. PHYS 101, PHYS 102 combined with PHYS 201, PHYS 202 and PHYS 203: maximum credit, one series, deduct credit for duplication of topics.*

PHYS 201 (CAN PHYS 8)
ENGINEERING PHYSICS **4 UNITS**
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: PHYS 100 or PHYS 101 and MATH 170 or equivalent with grades of Credit or "C" or higher.
This is the first course in a three-semester sequence designed to meet the requirements for engineering and related majors. Topics to be covered are mechanics, wave motion and sound. (Formerly PHYS 4.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. PHYS 101, PHYS 102 combined with PHYS 201, PHYS 202 and PHYS 203: maximum credit, one series, deduct credit for duplication of topics.*

PHYS 202
ENGINEERING PHYSICS **4 UNITS**
Class hours: 3 lecture/
1 quiz/2 lab
Prerequisite: PHYS 201 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes the physics of electricity and magnetism. The units of study under electricity include electrostatics, DC circuits and capacitance. Magnetism will cover magnetic fields, force on conductors, torque on coils, motional electromagnetic force and induction, self and mutual inductance, magnetic properties of matter and some basic AC theory. (Formerly PHYS 4.2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. PHYS 101, PHYS 102 combined with PHYS 201, PHYS 202 and PHYS 203: maximum credit, one series, deduct credit for duplication of topics.*

PHYS 203 (CAN PHYS 14)
ENGINEERING PHYSICS **4 UNITS**
Class hours: 3 lecture/1 quiz/2 lab (Fall only)
Prerequisite: PHYS 201 or equivalent with a grade of Credit or "C" or higher.
This course is a study of heat, light and modern physics. The unit on heat covers such topics as thermometry, calorimetry, the gas laws, thermodynamics and kinetic theory. Optics include geometric and physical optics. Modern physics touches on selected topics such as photoelectric effects, x-ray production and nuclear effects. (Formerly PHYS 4.3)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. PHYS 101, PHYS 102 combined with PHYS 201, PHYS 202 and PHYS 203: maximum credit, one series, deduct credit for duplication of topics.*

PLASTICS / COMPOSITES MANUFACTURING TECHNOLOGY

(Technology Division)

PMT 1 (Not degree applicable)
PLASTICS FUNDAMENTALS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with a basic understanding of occupations, manufacturing processes, and materials used within the plastics industry. Students seeking employment or employees wanting to enhance their skill level and knowledge of plastics will benefit from this course. The curriculum includes a variety of plastics facilities tours, guest speakers, and current industry information. Students have an opportunity to explore their own interest within the plastics manufacturing industry. (Formerly PMT 1.1)

PMT 2 (Not degree applicable)
INJECTION MOLDING
FUNDAMENTALS **1.5 UNITS**
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This class introduces students to basic fundamentals of set-up and operation of injection molding equipment in the plastics and composites industry. Safe handling of all machine operations and hands on training utilizing current industry equipment is emphasized. Students receive training that enables them to apply for entry-level positions in the plastics and composites industry. The course may be taken for a maximum of 3 units. (Formerly PMT 12.9)

PMT 3 (Not degree applicable)
PLASTICS REPAIR **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
This course will introduce students to the theory and practical application of repair for plastics and composites. The study of repair techniques as well as safety in handling hand tools, power tools, and special plastic repair equipment will be covered. It will prepare students for practical hands-on training to gain experience of plastic repairs. Related technical information and demonstrations are presented concerning plastic identification, materials, and processes of repair. The PMT 63L specialty lab class is recommended to perform the hands-on training and repairs. (Formerly PMT 15)

PMT 4
PLASTICS III **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: PMT 64 or equivalent with a grade of Credit or "C" or higher.
This is a specialty course for the advanced plastics student or individuals employed in the plastics industry that wish to further their skills and knowledge of plastics. Laboratory experience will continue to stress major areas of specialization selected by the student, including: materials, process applications, and equipment. (Formerly PMT 31)

PMT 5 (Not degree applicable)
SURVEY OF COMPOSITES **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course provides an overview of manufacturing procedures, processing and materials used within the composites industry. The design, construction, and fabrication of laminated parts, as well as related terminology, will be covered. PMT 63L is recommended. (Formerly PMT 69.3/PMT 33)

PMT 40
EXTRUSION FUNDAMENTALS **1.5 UNITS**
Class hours: 3 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course introduces students to the fundamentals of the plastic extrusion process. Selection of equipment and materials are covered as well as current industry terminology. Material handling, safe machine operation and manufacturing processes are emphasized.

PMT 43 / 44 (Not degree applicable)
PLASTICS MANUFACTURING TECHNOLOGY OCCUPATIONAL WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Plastics work experience 73 or 20 hours of employment per week for Plastics work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Enrollment in the Plastics vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Plastics Manufacturing Technology students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly PMT 73/74)

PMT 50
SURVEY OF HYDRAULICS AND PNEUMATICS **1.5 UNITS**
Class hours: 3 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will introduce the student to the fundamentals and principles of hydraulics and pneumatics as they relate to industrial manufacturing and equipment. Applications of each will be explored. The design and understanding of simple circuits and systems in the laboratory will be examined. (Formerly PMT 23.9)

PMT 51
COMPOSITES FABRICATION **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: PMT 70 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course will provide students with theory and "hands-on" exposure to fabrication methods with "high-tech" materials. Areas of concentration will include composite structures, material choices, design of composite structures, surface bonding, fastener installation, inspection processes and approved repair methods. Fabrication, safety procedures, and material handling are also covered. (Formerly PMT 35)

PMT 52
MOLDMAKING 11 **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)

PMT 53
COMPOSITES REPAIR **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: PMT 70 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course provides students with "hands-on" exposure to composite structural repair techniques. Areas of emphasis include structural and nonstructural (cosmetic) evaluation, material handling, surface preparation, and common types of damages encountered within the composite industry. (Formerly PMT 36)

PMT 55
PROTOTYPING **1 UNIT**
Class hours; 2 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides insight into contemporary prototyping materials and methods used in industry. The focus is on preproduction consumer products from initial ideas through research and development concluding with manufacturing processes.

PMT 57
SURVEY OF PLASTICS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to a basic understanding of occupations, manufacturing processes and materials used within the plastics industry. Students seeking employment and furthering their knowledge of plastics will benefit from a variety of plant tours, guest speakers, and information in areas of interest within the plastics manufacturing industry. (Formerly PMT 1.2)

PMT 58
INDUSTRIAL DESIGN FOR PLASTICS **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is for students desiring knowledge of materials and processes used in the field of industrial design and applications. Content includes an overview of plastics technology and lecture/demonstrations in principle processes, including molding, reinforced materials, forming, moldmaking, casting, bonding, laminating, and fabrication. (Formerly PMT 1.5)

PMT 59
INJECTION MOLDING I **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course introduces the student to the fundamentals of set-up and operation of injection molding equipment as found in industry. Training on actual industrial equipment as well as safe material and machinery handling is stressed. This course may be taken for a maximum of 5 units. (Formerly PMT 12)

PMT 60
EXTRUSION **3 UNITS**
Class hours: 2.5 lecture/1.5 lab
Prerequisite: None.
Recommendation: PMT 100 or equivalent with a grade of Credit or "C" or higher.
This course provides the student with details that apply to application of the extrusion process. The necessary equipment and materials and their selection are covered in depth. Current industry trends in materials handling, machine operation and how these relate to the manufacturing process are emphasized. (Formerly PMT 13)

PMT 61
FIBERGLASS I **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Recommendation: PMT 100 or equivalent with a grade of Credit or "C" or higher.
This is a course in the industrial use of fiberglass resins, cloth, mat and composite materials. The care and use of equipment (fiberglass chopper gun, gel-coat spray gun) is stressed. Other areas explored are mold laminating, repair, and proper use of resins and fillers. Mixing of resins and safety procedures are emphasized. This course may be taken for a maximum of 5 units. (Formerly PMT 14)

PMT 62
PLASTIC PACKAGING **2 UNITS**
Class hours: 4 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the theory and practical methods of plastic packaging. Areas of concentration are on plastic materials, processing applications and equipment used in consumer and industrial packaging. Material identification and plastic material recycling are also covered. (Formerly PMT 17)

PMT 63L
SPECIALTY PLASTICS LAB **0.5 UNIT**
Class hours: 3 lab (9 weeks)
Prerequisite: None.
This is a lab course to complement other courses in the Plastic/Composite curriculum. It is designed to give practical experience in working with plastics and fiberglass materials. This course may be taken for a maximum of 2 units. (Formerly PMT 19)

PMT 64
PLASTICS II **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: PMT 100 or equivalent with a grade of Credit or "C" or higher.
This is an intermediate course designed to further the student's knowledge of materials and processes. Laboratory work will stress the two major areas of specialization selected by the student from the following: Plastics Molding, Thermoforming Fabrication, Reinforced Plastics, Testing Equipment Set-Up and Maintenance, and Tooling. (Formerly PMT 21)

PMT 65
MOLDMAKING I **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
This class introduces student to the fundamentals of plastic injection mold designs and fabrication. This course includes basic shop operation, demonstrations, safety and the technology of moldmaking in the plastic industry. (Formerly PMT 22)

PMT 66
HYDRAULICS AND PNEUMATICS **3 UNITS**
Class hours: 2.5 lecture/1.5 lab
Prerequisite: PMT 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course will introduce the student to the fundamentals and principles of hydraulics and pneumatics as they relate to plastics and machine tool equipment. Applications of each will be explored, as well as the design of simple circuits and systems in the laboratory. (Formerly PMT 23)

PMT 67
FIBERGLASS II **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
This is a course in fiberglass/composites manufacturing technology. Areas of concentration include the processes and techniques of fiberglass composites as applied in industry. This course will place the student in production situations similar to those encountered in industry. The student may also have an opportunity to construct a project of his/her own with instructor approval. (Formerly PMT 24)

PMT 68
PLASTICS MATERIALS AND PROCESSES **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course is directed toward the study of plastic materials used in processing areas. Proper selection and applications of various thermosetting and thermoplastics are studied. Testing of these materials is covered as specified in the ASTM Standards, including physical properties and chemical properties. Plastic material processing that is covered includes injection molding, compression molding and extrusion. (Formerly PMT 25)

PMT 70
COMPOSITES TECHNOLOGY **2.5 UNITS**
Class hours: 2 lecture/2 lab
Recommendation: PMT 67 or equivalent with a grade of Credit or "C" or higher.
This course is designed for students in the field of fiberglass/composites. Emphasis is on the lay-up, vacuum bagging, and cure processing of wet laminating techniques and preimpregnated materials. Also included are processes of resin transfer molding (RTM), filament winding, pultrusion, bonding, and fabrication of composite structures with honeycomb core materials. Laboratory experience will cover safety of handling resins, reinforcements, and related materials. (Formerly PMT 34)

PMT 71
PLASTICS IV **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: PMT 4 or equivalent with a grade of Credit or "C" or higher.
This is a specialty course for the advanced plastics student or one employed in the plastics industry. Emphasis will be placed on development of independent problem solving in the student's major area of specialization. (Formerly PMT 41)

PMT 72
TOOLING FOR PLASTICS **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Recommendation: PMT 61 or PMT 67 or PMT 70 or equivalent with a grade of Credit or "C" or higher.
This course covers basic tooling concepts and materials for making various plastic composite molds. These include laminated, cast and high temperature plastic tools as well as plaster tooling. Design recommendations, physical properties data, repair procedures and techniques are discussed. (Formerly PMT 46)

PMT 75
RESIN TRANSFER MOLDING **1 UNIT**
Class hours: 2 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed for individuals in the field of fiberglass composites, tooling and production. This class includes lecture/demonstration with "hands-on" Resin Transfer Molding (RTM) moldmaking and production techniques. Emphasis is on converting parts currently being made by the hand lay-up method to the closed mold RTM process. Topics include safe RTM equipment operation, mold design, fabrication, resin and catalyst selection, reinforcements, and core materials. Production methods leading to high output and troubleshooting techniques are discussed.

PMT 100
PLASTICS 1 **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course provides knowledge of materials and processes used in the field of plastic manufacturing today. An overview of plastic technology and application of production processes, as well as fabrication methods are covered. This course includes molding, forming, reinforced materials, bonding, laminating, and finishing techniques, and plastic materials identification. (Formerly PMT 1)
Transfer Credit: CSU

PMT 221
MODELMAKING **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to techniques and various materials used in commercial modelmaking. Areas of emphasis include conventional and current trends, tools and materials, dimensional accuracy, and stylistic value. Hands-on fabrication of commercial models is also covered. (Formerly PMT 47)
Transfer Credit: CSU

POLITICAL SCIENCE

(Humanities / Social Sciences Division)

POL 90
INTERNET STRATEGIES FOR CIVIC COMMUNICATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course, using traditional and online techniques looks at the growing use of the Internet by public agencies, government relations departments, non-profit and community-based organizations, and political/civic campaigns, and civic institutions. Students will examine the effects of Internet on society as well as the economic impact of Internet on

political, public and civic institutions. Strategic issues related to aligning Internet solutions and overall institutional objectives will be addressed including Internet tools for fundraising, targeted communication, volunteer recruitment, polling, management, narrow casting and online collaboration. (Formerly POL 15)

POL 101 (CAN GOVT 2)
AMERICAN POLITICAL INSTITUTIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 or equivalent with a grade of Credit or "C" or higher.
This course is a study of national, state and local government, including the national and state constitutions. It emphasizes the rights and responsibilities of citizens and political processes and issues facing government. Emphasis will be given to practical policy formulation at all levels. (Formerly POL 5)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. POL 101 and POL 201 combined: maximum credit, one course.*

POL 110
CALIFORNIA STATE AND LOCAL GOVERNMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 43 or equivalent with a grade of Credit or "C" or higher.
This course stresses the study of California state and local government (counties, cities, and special districts) and California party politics, including the study of the California constitution, intergovernmental relations, regional governments, and urban politics and problems. This course is designed to make available to students concepts, information, and skills which will enable them to better understand the political and governmental systems in which citizens function. (Formerly POL 18)
Transfer Credit: CSU

POL 201
INTRODUCTION TO POLITICAL SCIENCE AND AMERICAN GOVERNMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course is an introductory survey of the field of political science focusing on the major concepts, theories, institutions, processes and policies of government in the United States at the national, state, and local levels. The class is intended for college transfer students, especially political science majors. (Formerly POL 1)
*Transfer Credit: CSU; UC**
**UC Credit limits may apply. POL 101 and POL 201 combined: maximum credit, one course.*

POL 210
INTERNATIONAL RELATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher.
This course is a study of basic concepts, theories, and principles of international politics. Emphasis shall be placed on an examination of contemporary world affairs including the importance of nationalism, imperialism, ideology, alliance systems, the rise of the developing nations and the nature of international organizations. Specific case studies shall be examined to illustrate the various principles of international relations. (Formerly POL 10)
Transfer Credit: CSU; UC

POL 220
COMPARATIVE GOVERNMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory score on the English Placement Process or ENGL 52 with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course includes a study of comparative systems of government, differing ideologies, and current political problems. Analyses of revolutionary forces in the 20th century are conducted for political insight and understanding. (Formerly POL 2)
Transfer Credit: CSU; UC

POL 230
CONTEMPORARY POLITICAL ISSUES: MIDDLE EAST **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
A one-semester course emphasizing the basic issues in conflict between nations of the Middle East, this class will investigate, in addition to the political and economic conditions, the social and cultural contributions of the Middle Eastern nations. (Formerly POL 12)
Transfer Credit: CSU; UC

PSYCHOLOGY

(Humanities / Social Sciences Division)

PSYC 101 (CAN PSY 2)
GENERAL INTRODUCTORY PSYCHOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course presents a general survey of psychology including development of the individual, learning, thinking, motivation, emotion, and perception. Some study is also given to the understanding and measurement of individual differences, group processes, and the biology of behavior. (Formerly PSYC 1)
Transfer Credit: CSU; UC

PSYC 103
CRITICAL THINKING IN PSYCHOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course covers the nature of critical thinking from a psychological perspective. Focusing on the nature of thinking, the course emphasizes the development of critical thinking applied to scientific inquiry. Through an interactive classroom environment that includes lecture/discussion, debates, and writing exercises, critical thinking skills such as problem solving, determining cause and effect relationships, analyzing arguments, fallacies in thinking, comparing facts with opinion, an understanding probabilities are developed. There will be an emphasis on the application of critical thinking skills to everyday issues. (Formerly PSYC 3)
Transfer Credit: CSU; UC

PSYC 139
ISSUES IN PSYCHOLOGY 2 UNITS
Class hours: 2 lecture
Prerequisite: PSYC 101 or equivalent with a grade of Credit or "C" or higher.
This course is an in depth survey of controversial issues in psychology highlighting interesting points of disagreement among psychologists on a theoretical as well as practical level. Topics include parapsychology, the inheritance of intelligence, biofeedback, pros and cons of psychological testing, meditation, psychosurgery, and deception in psychological experiments. (Formerly PSYC 20)
Transfer Credit: CSU; UC

PSYC 149
PSYCHOLOGY: THE STUDY OF HUMAN BEHAVIOR 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is a general introductory psychology course which will acquaint the students with basic psychological terms, concepts, principles and methodological approaches associated with the scientific study of behavior. An eclectic blend of behavioristic, Freudian and Humanistic points of view will be presented in the televised lessons. (Formerly PSYC 10)
Transfer Credit: CSU; UC

PSYC 150
PERSONAL AND SOCIAL ADJUSTMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: PSYC 101 and ENGL 52 or equivalent with grades of Credit or "C" or higher.
This course is a broad survey of the psychological theories of human personality, encompassing the behavioral, psychoanalytic and humanistic points of view. The focus is the way in which each of the three views may be utilized to explain normal personality adjustment. The class is intended for college transfer students, especially Social Science majors. (Formerly PSYC 33)
Transfer Credit: CSU; UC

PSYC 210 (CAN PSY 6)
ELEMENTARY STATISTICS 4 UNITS
Class hours: 3 lecture, 3 lab
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or "C" or higher.
This course emphasizes the calculation and interpretation of the basic statistical measures, with major emphasis upon the meaning, limitations, and applicability of statistical procedures. It is intended for majors and minors in the behavioral sciences especially in psychology and sociology. (Formerly PSYC 4)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. PSYC 210 combined with MATH 112: maximum credit, one course.*

PSYC 220 (CAN PSY 8)
RESEARCH METHODS 4 UNITS
Class hours: 3 lecture, 3 lab
Prerequisite: PSYC 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Satisfactory score on English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
An introduction to the scientific study of psychological principles, this course is intended primarily for prospective psychology majors and other students who plan further work in psychology. Independent projects are developed, performed and reported with emphasis on laboratory and naturalistic techniques of observation and investigation. (Formerly PSYC 5)
Transfer Credit: CSU; UC

PSYC 241
INTRODUCTION TO PSYCHOBIOLOGY 3 UNITS
Class hours: 3 lecture
Recommendation: PSYC 101 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the biology of behavior, covering cells and what they do; and the structure, function, and development of the nervous and hormone systems. It also covers sensory processes, the neurological basis of motivated and emotional behavior, along with a series of specific behavioral categories, such as pain, aggression, sleep, dreaming, sexual behavior and mental illness. In addition, it explores the biological basis of the higher cerebral functions crucial to human beings as Homo sapiens, learning, memory, intelligence, thought and language. (Formerly PSYC 2)
Transfer Credit: CSU; UC

PSYC 251
DEVELOPMENTAL PSYCHOLOGY 3 UNITS
Class hours: 3 lecture
Prerequisite: None
An integrated study of the social, emotional, cognitive, and biological foundations of the human life cycle from conception to death will be presented in this course. Attention will also be devoted to the study of research methods and the application of research findings to ongoing developmental problems. Implications for personal and professional use will be discussed. (Formerly PSYC 11)
Transfer Credit: CSU; UC

PSYC 261
SOCIAL PSYCHOLOGY 3 UNITS
Class hours: 3 lecture
Prerequisite: None
This course emphasizes an introduction to methods and content of social psychology; theories of social behavior; communication; social influence; conformity; aggression; leadership; and, prejudice. Since emphasis will be given to practical applications of research findings, this elective course is recommended for students majoring in the social and behavioral sciences. (Formerly PSYC 13)
Transfer Credit: CSU; UC

PSYC 271
ABNORMAL PSYCHOLOGY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course entails a detailed survey of the various types of abnormal behavior such as neurosis, psychosis, alcoholism and drug dependence, crime, sexual deviations, and mental retardation. The different views of abnormality, its causes, treatment, and prevention are also discussed. (Formerly PSYC 14)
Transfer Credit: CSU; UC

READING

(Liberal Arts Division)

READ 5T (Not degree applicable)
EDUCATIONAL TECHNOLOGY SKILLS FOR COLLEGE 0 UNIT
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course increases student knowledge of educational technology resources on campus, improves student use of educational technology for successful completion of technology based course assignments, and improves student confidence in utilizing educational technology. Special attention will be given to skills necessary for success in distributed education courses. (Formerly READ 69.4/READ 58)

READ 6 (Not degree applicable)
TUTOR TRAINING **0.5 UNITS**
Class hours: 3 lecture, open entry/open exit.
Prerequisite: Satisfactory completion of the Reading Placement Process or READ 43 or equivalent with a grade of Credit or "C" or higher.
This course is designed to acquaint the tutor with techniques in assisting students to gain better scholastic achievement. Those students who fail to complete nine hours of course work will not receive credit for this course. The course may be repeated for a maximum of one unit. This course is offered on a credit/no credit basis only. (Formerly READ 60)

READ 41T (Not degree applicable)
INDIVIDUALIZED READING **0 UNIT**
Class hours: 3 lab, open entry/open exit
Prerequisite: None.
This course is for students who wish to improve their reading skills outside of a structured class. Students will be tested as they enter the class, or by the reading component of the Cerritos College assessment test. Based on the scores from the test, work in any of the following areas may be assigned: phonics, vocabulary study, vocabulary in context, literal comprehension, inferential comprehension, critical reading or study-related reading. (Formerly READ 51)

READ 42 (Not degree applicable)
READING ACCESS
FOR COLLEGE SUCCESS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Completion of the Reading Placement Process.
This course is designed to help culturally diverse students make the transition from non-credit courses into college-credit programs. It is open to non-readers and limited readers, both native and immigrants. Visual, auditory, tactile, and kinesthetic instructions are included. Phonics, vocabulary, reading, and writing skills are stressed. (Formerly READ 69.1/READ 52))

READ 43 (Not degree applicable)
BASIC READING SKILLS **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Reading Placement Process or READ 42 or equivalent with a grade of Credit or "C" or higher.
Recommendation: None.
This course is designed for students who wish to improve basic reading skills. Coursework includes work on fundamental word analysis skills and fundamental comprehension skills. This course will be offered on a credit/no credit basis only. To receive credit for this course, students will need to demonstrate that they are reading at the tenth grade level. (Formerly READ 53)

READ 44 (Not degree applicable)
EFFECTIVE STUDY METHODS
FOR COLLEGE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
The student will become aware of and experience proven learning techniques ensuring improved comprehension and retention of information from college lectures and textbooks. Skills to be emphasized include: study time management, methods for reading textbooks efficiently, note-taking techniques, understanding textbook assignments, preparation for examinations, test-taking techniques, effective listening techniques, guidelines for vocabulary development, memory techniques, the preparation of research papers and library skills. Study skills surveys will be used to help students identify and improve upon their personal study skills habits and their individual mode of learning. (Formerly READ 59)

READ 46 (Not degree applicable)
VOCATIONAL /
TECHNICAL READING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course develops the ability to acquire and improve reading skills necessary for success in the students' occupational lives. All of the instructional activities in this course will strengthen specific technology course curriculum: reading comprehension, vocabulary development, word attack, and study-reading strategies that will prepare students for reading in the workplace. (Formerly READ 56)

READ 54
ADVANCED READING **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Reading Placement Process or READ 43 or equivalent with a grade of Credit or "C" or higher.
This course is designed to improve literal, interpretive, critical comprehension, and vocabulary skills. Emphasis will be on structured vocabulary development and college-level reading skills.

READ 100
SPEED READING METHODS
AND APPLICATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed to increase reading speed and comprehension in college-level material. Emphasis is placed on developing an improved reading method through learning rapid reading techniques, gaining flexibility in adjusting reading speed to suit purpose for reading and difficulty of the material, overcoming habits of regression and subvocalization, recognizing and using basic writing structures and literary elements as aids to comprehension in depth, and mastering speed study techniques and speed research techniques. All methods and techniques are applied to various types of college-level reading materials. (Formerly READ 6)
Transfer Credit: CSU

READ 100A
SPEED READING: METHODS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course is identical to the first half of Reading 100. It is designed to increase reading speed by developing an improved reading method through learning rapid reading techniques, gaining flexibility in adjusting reading speed to suit purpose for reading and difficulty of the material, overcoming habits of regression and subvocalization, recognizing basic writing structures and literary elements as aids to comprehension. (Formerly READ 6.1)
Transfer Credit: CSU

READ 100B
SPEED READING:
APPLICATIONS **1.5 UNITS**
Class hours: 3 lecture (9 weeks)
Prerequisite: READ 100A or equivalent with a grade of Credit or "C" or higher.
This course is identical to the second half of Reading 100. It is designed to improve comprehension while reading rapidly by utilizing knowledge of basic writing structures and literary elements as aids to comprehension, mastering speed study techniques, and speed research techniques, and applying all methods and techniques learned in Reading 100A to various types of college level reading materials. (Formerly READ 6.2)
Transfer Credit: CSU

READ 200
ANALYSIS AND
CRITICAL READING **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of or higher.
Corequisite: None.
Recommendation: Completion of ENGL 52 or equivalent with a grade of Credit or "C" or higher.
The course focuses on student understanding of the cognitive processes of critical thinking to critical reading in an integrated, interdisciplinary framework. Emphasis is placed on the development of critical thinking, reading, and writing skills with applications in interpretation, analysis, and criticism of academic readings. (Formerly READ 1)
Transfer Credit: CSU

REAL ESTATE

SEE BUSR
(Business Real Estate)

SECRETARIAL (ADMINISTRATIVE, LEGAL, MEDICAL)

SEE BCOT
(Business Computerized Office Technologies)

SIGN LANGUAGE

(Liberal Arts Division)

SL 101
BEGINNING
AMERICAN SIGN LANGUAGE **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
This beginning course emphasizes expressive signs, receptive signs and finger spelling. An appreciation of cultural diversity is developed through the study of the differences and similarities between deaf and hearing cultures. (Formerly SL 50)
Transfer Credit: CSU;UC

SL 102
INTERMEDIATE AMERICAN
SIGN LANGUAGE **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: SL 101 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the study of the basic principles of American Sign Language with an emphasis on conceptual accuracy. A deeper appreciation of deaf culture is developed by studying the deaf community, encouraging participation in deaf community events, and understanding various communication technology used by deaf people. (Formerly SL 51)
Transfer Credit: CSU; UC

SL 201
ADVANCED AMERICAN
SIGN LANGUAGE **3 UNITS**
Class hours: 3 lecture, 1 lab.
Prerequisite: SL 102 or equivalent with a grade of Credit of "C" or higher.
This course provides a review and in-depth study of the grammatical concepts of American Sign Language. It will further develop the appreciation of cultural diversity particularly in the deaf community. The class is conducted primarily in American Sign Language. (Formerly SL 48, SL 52)
Transfer Credit: CSU; UC

SOCIOLOGY

(Humanities / Social Sciences Division)

SOC 101 (CAN SOC 2)
INTRODUCTORY
SOCIOLOGY PRINCIPLES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Sociology 1 represents an introductory survey of the fundamental theories, philosophies and problems associated with the study of sociology in a pluralistic society. A multicultural approach is used throughout in the analysis of human relationships through a study of major concepts. Institutions and their functions, personality development, social interaction, social change, collective behavior, the environment, war and peace are major themes for this course. (Formerly SOC 1)
Transfer Credit: CSU; UC

SOC 110
MARRIAGE AND THE FAMILY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Sociology 110 represents an introductory survey of the sociological, psychological and biological factors involved in love, marital and family relationships. Using a multicultural approach, consideration is given to the complex issues of dating, courting, mate selection, alternatives to marriage, conflict, communication, sex roles, child-bearing and child-rearing. (Formerly SOC 15)
Transfer Credit: CSU; UC

SOC 120
INTRODUCTION TO
HUMAN SEXUALITY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Sociology 120 represents an introductory survey of the behavioral, biological, historical, religious, and socio-cultural aspects of human sexuality in a pluralistic society. A multicultural approach is used throughout in the study of the anatomy and physiology of sexual function, treatment of dysfunction, psychosexual development and the relationship between sexuality, changing social/cultural standards and contemporary values. Sex across the life span, pregnancy, birth control, sexually transmitted diseases, the AIDS crisis, homosexuality, sexual assault, incest, and child molestation are among the topics covered. (Formerly SOC 10)
Transfer Credit: CSU; UC

SOC 201 (CAN SOC 4)
SOCIAL PROBLEMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: SOC 101 or equivalent with a grade of Credit or "C" or higher.
Sociology 201 represents a study of undesirable socially constructed social problems. Special emphasis is on the range of phenomena considered social problems which may include: war, overpopulation, poverty, street crime, white-collar crime, racial/ethnic conflict, mental illness, the environment, health care, international terrorism, government regulation, drug abuse, ageism, unemployment, hopelessness, the decline of the family, child abuse, urban decay, pornography, overcrowded prisons, campus unrest, sex discrimination, abortion, alienated youth, and AIDS. (Formerly SOC 2)
Transfer Credit: CSU; UC

SOC 210
AMERICAN
MINORITY RELATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: SOC 101 or equivalent with a grade of Credit or "C" or higher.
This course is a survey of theories, problems, nature, and the dynamics of racism. Power and inequality, prejudice and discrimination and patterns of racial/ethnic relations are examined conceptually and historically, using data from scientific, philosophical, sociopolitical, legal and cultural sources. Models and concepts for positive change will be explored. (Formerly SOC 25)
Transfer Credit: CSU; UC

SOC 215
SOCIOLOGY OF CULTURAL DIVERSITY: CHALLENGE AND CHANGE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to create an awareness of, an appreciation of, and a tolerance of diverse cultures. Topics covered will include the nature of culture, world views, customs and mores, views on religion, marriage and the family, children and the elderly, ethnocentrism, stereotyping, the nature of prejudice and discrimination, and social change. (Formerly SOC 8)
Transfer Credit: CSU, UC

SOC 220
INTRODUCTION TO HUMAN SERVICES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: SOC 101 or PSYC 101 or equivalent with a grade of Credit or "C" or higher is strongly recommended.
Sociology 220 represents an introduction to the purposes, historical context and organizational structure of human services. Emphasis is threefold: the development of human services and related careers in response to situations of individuals or groups who need assistance to live better lives (purpose); the recent history of human services dating from the early 1960s, which is marked by an increased awareness that many people need different kinds of assistance; and the purposes of the organizations that deliver services to clients. (Formerly SOC 20)
Transfer Credit: CSU

SOC 225
CONTEMPORARY SOCIAL ISSUES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: SOC 101 or equivalent with a grade of Credit or "C" or higher is strongly recommended.
This is a specialized course designed to acquaint the student with major social issues facing the United States and to a limited extent, the world. This course focuses on origins, sustaining causes and possible solution to societal issues. The specific issue will be decided by the course instructor and announced in the Schedule of Classes. This course may be taken for a maximum of 12 units. (Formerly SOC 50)
Transfer Credit: CSU

SOC 230
JUVENILE DELINQUENCY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: SOC 101 or equivalent with a grade of Credit or "C" or higher is strongly recommended.
This course is a study of adolescents and their lives within contemporary society with emphasis on what is defined and accepted as justice for adolescents in general and delinquents in particular. (Formerly SOC 22)
Transfer Credit: CSU

SOC 250
SOCIOLOGY OF AGING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course represents an introductory survey of the fundamental theories and problems of aging. Using a multicultural approach, the course investigates the sociological, psychological, and physical aspects of the human aging process from middle age to old age. Students are required to investigate why we study aging, to understand the demography of aging as well as the historical and cross-cultural aspects of the aging process in a society. A knowledge of current policies and their effects on the aged population is also desirable. Using and understanding various methodologies is also part of the course. (Formerly SOC 16)
Transfer Credit: CSU, UC

SPANISH

(Liberal Arts Division)

SPAN 101 (CAN SPAN 2)
ELEMENTARY SPANISH **5 UNITS**
Class hours: 5 lecture, 1 hr. lab arr.
Prerequisite: None.
This beginning Spanish course emphasizes listening, speaking, reading, and writing and helps to develop an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly SPAN 1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. SPAN 101 and SPAN 111 combined: maximum credit, one course.*

SPAN 102
ELEMENTARY SPANISH **5 UNITS**
Class hours: 5 lecture + 1 hr. lab arr.
Prerequisite: SPAN 101 or SPAN 103B or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the study of the basic principles of Spanish with an emphasis on oral and written communication. It helps to continue to develop an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly SPAN 2)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. SPAN 102 and SPAN 112 combined: maximum credit, one course.*

SPAN 103A
ELEMENTARY SPANISH FOR TEACHER PREPARATION I **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This beginning course in Spanish language for teacher preparation emphasizes listening, speaking, reading, and writing, and helps to develop an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly SPAN 16)
Transfer Credit: CSU

SPAN 103B
ELEMENTARY SPANISH FOR TEACHER PREPARATION **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: SPAN 103A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of the study of basic Spanish language principles for teacher preparation with an emphasis on oral and written communication. It further develops an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly SPAN 17)
Transfer Credit: CSU

SPAN 111
ELEMENTARY SPANISH FOR SPANISH SPEAKERS **5 UNITS**
Class hours: 5 lecture, 1 lab
Prerequisite: None.
This beginning course corresponding to SPAN 101 is designed for students already able to understand and speak the language as used in everyday situations. Emphasis is on listening, speaking, reading, writing and special problems with structures and vocabulary. (Formerly SPAN 1.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. SPAN 101 and SPAN 111 combined: maximum credit, one course.*

SPAN 112
ELEMENTARY SPANISH
FOR SPANISH SPEAKERS 5 UNITS
Class hours: 5 lecture, 1 lab
Prerequisite: SPAN 101 or SPAN 111 or SPAN 103B or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of SPAN 111 or SPAN 101 designed for the native speaker. It corresponds to SPAN 102 with an emphasis on oral and written communication. This course is designed for students that already speak, understand and have studied Spanish. It helps develop the appreciation of cultural diversity through the study of differences and similarities between the diverse Latin-American and Spanish cultures. (Formerly SPAN 2.1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. SPAN 102 and SPAN 112 combined: maximum credit, one course.*

SPAN 201 (CAN SPAN SEQ B)(CAN SPAN 8)
INTERMEDIATE SPANISH 5 UNITS
Class hours: 5 lecture/1 hour lab arranged
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in-depth study of important grammatical concepts. Reading and interpretation of literary works by Hispanic writers and guided and original compositions are included. This course will further develop the appreciation of cultural diversity. The class is conducted primarily in Spanish. (Formerly SPAN 3)
Transfer Credit: CSU; UC

SPAN 202 (CAN SPAN SEQ B)(CAN SPAN 10)
INTERMEDIATE SPANISH 4 UNITS
Class hours: 4 lecture
Prerequisite: SPAN 201 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in depth study of grammatical concepts. Reading and interpretation of literary works by Latin American and Spanish writers, and guided and original compositions are included. This course provides further practice in the discussion and presentation of current cultural topics through literature. This class, conducted primarily in Spanish, will further develop the appreciation of cultural diversity and is recommended for all Spanish majors. (Formerly SPAN 4)
Transfer Credit: CSU; UC

SPAN 205
ADVANCED
SPANISH COMPOSITION 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 201 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of the development of Spanish composition skills and applied grammar. Compositions are assigned to develop specific writing skills and improve critical judgment. This course will further develop the appreciation of cultural diversity. The class is conducted primarily in Spanish. (Formerly SPAN 3.5)
Transfer Credit: CSU; UC

SPAN 206
HISPANIC LITERATURE
IN THE MEDIA 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: SPAN 201 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will examine the translation of various literary genres from different periods of Hispanic literature, both Peninsular and Latin American, into various audio/visual media. An exploration of how literature and audio/visual media create, shape, reinforce, and/or change culture and impact its images, stereotypes, and archetypes will be examined. Theoretical approaches to the adaptation of literature into other media will be studied. (Formerly SPAN 6)
Transfer Credit: CSU; UC

SPAN 210
HIGHLIGHTS OF
HISPANIC CULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
This course traces the principal currents of Hispanic culture through Europe and the New World. Using a thematic approach, it traces the historic, political and economic development of the Spanish speaking people, and presents the highlights of Hispanic achievements from the standpoint of civilization and culture. This course, conducted primarily in Spanish, is recommended for Spanish majors. (Formerly SPAN 10)
Transfer Credit: CSU; UC

SPAN 213
LIVING SPANISH GRAMMAR AND
WRITTEN COMMUNICATION 2 UNITS
(An intermediate course)
Class hours: 2 lecture
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
Study of fundamental grammatical principles and sentence structures with drills and translations. (Special emphasis on uses of the Imperfect and the Preterite and the phonetic rules of the accent.) Writing of short paragraphs blending creativity with grammatical correctness. An excellent review course for all students. Recommended for Spanish majors. (Formerly SPAN 13)
Transfer Credit: CSU; UC

SPAN 214
LIVING SPANISH GRAMMAR AND
WRITTEN COMMUNICATION 2 UNITS
(An intermediate course)
Class hours: 2 lecture
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
Study of fundamental grammatical principles and sentence structures with drills and translations. (Special emphasis on uses of the Subjunctive and the phonetic rules of the accent.) Writing of short compositions blending creativity with grammatical correctness. An excellent review course for all students. Recommended for Spanish majors. (Formerly SPAN 14)
Transfer Credit: UC

SPAN 223
SPANISH FOR HEALTH
AND MEDICAL CAREERS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This Spanish course for health and medical personnel is designed for students who plan to use Spanish as a communication tool in their field of specialization. A major emphasis is on vocabulary and situational dialogues closely related to health and medical careers. (Formerly SPAN 23)
Transfer Credit: CSU

SPAN 245
INTRODUCTION TO CHICANO/
MEXICAN AMERICAN CULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
A study of the culture of the Chicano/Mexican American student. Analyzes the family, religious institutions, contributions, advancements and problems of the Chicano in the United States and aids him to achieve self-identification and an understanding of his relationship to his own community. Develops insight into the special nature of Chicano culture for those outside that culture. Conducted in English and open to all students. (Formerly SPAN 45)
Transfer Credit: CSU; UC

SPAN 281
BEGINNING
CONVERSATIONAL SPANISH 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 102 or equivalent with a grade of Credit or "C" or higher.
This course gives the student practice in understanding and speaking Spanish as used in the home, school, business, travel and everyday life. Emphasis is placed on vocabulary, idioms, and language patterns fundamental to an active and practical use of Spanish. This course, recommended for all Spanish majors, develops the appreciation of cultural diversity. (Formerly SPAN 8.1)
Transfer Credit: CSU; UC

SPAN 282
INTERMEDIATE
CONVERSATIONAL SPANISH 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 281 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive practice in the discussion of current topics including multiculturalism. Emphasis is on the acquisition of special idioms and vocabulary suitable to conversation about the family, the world of work, business, sports and pastimes, popular culture, travel and ecology. This course, conducted primarily in Spanish, is recommended for all Spanish majors. (Formerly SPAN 8.2)
Transfer Credit: CSU; UC

SPAN 283
ADVANCED
CONVERSATIONAL SPANISH 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 282 or equivalent with a grade of Credit or "C" or higher.
This course consists of in depth oral discussion of cultural topics, including modern family life, the job market, advertising in the business world, pastimes and amusements, economy versus ecology, the world of travel and multiculturalism. Emphasis is on the acquisition of appropriate vocabulary and language patterns, and the creative development of arguments. This course, conducted in Spanish, is recommended for all Spanish majors. (Formerly SPAN 8.3)
Transfer Credit: CSU; UC

SPECIAL STUDIES

SS 29 (Not degree applicable)
SPECIAL STUDIES 0-5 UNITS
Class hours: Variable
Prerequisite: Varies according to topic
Corequisite: Varies according to topic.
Recommendation: Varies according to topic.
This course will provide students the opportunity to explore topics not offered in the regular departmental curriculum. Topics are selected according to student and instructor interests and needs. This course is not offered every semester. For specific departmental offerings of Special Studies, please see the current Schedule of Classes.

SS 69
SPECIAL STUDIES 0-5 UNITS
Class hours: Variable
Prerequisite: Varies according to topic.
Corequisite: Varies according to topic.
Recommendation: Varies according to topic.
This course will provide students the opportunity to explore topics in a particular discipline not offered in a regular departmental curriculum. Material will vary by discipline and from semester to semester. Topics are selected according to student and instructor interest. These courses are not offered each semester.

SS 109
SPECIAL STUDIES 0-5 UNITS
Class hours: Variable
Prerequisite: Varies according to topic.
Corequisite: Varies according to topic.
Recommendation: Varies according to topic.
This course will provide students the opportunity to explore topics in a particular discipline not offered in a regular departmental curriculum. Material will vary by discipline and from semester to semester. Topics are selected according to student and instructor interest. These courses are not offered each semester.
Transfer Credit: CSU

SPEECH

(Liberal Arts Division)

SPCH 30 (Not degree applicable)
COMMUNICATION DISORDERS 1 UNIT
Class hours: 3 lecture/lab
Prerequisite: None.
This course is designed for students with a communication difficulty. Speech-Language-Hearing problems such as articulation, stuttering, voice disorders, regional or foreign dialects, language impairments due to a hearing loss are dealt with by individual or small group therapy. This course may be taken for a maximum of 4 units. The course is to be offered on a credit/no credit basis. (Formerly SPCH 50.1)

SPCH 31 (Not degree applicable)
COMMUNICATION DISORDERS 1 UNIT
Class hours: 3 lecture/lab
Prerequisites: 4 units of SPCH 30 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of individual and/or small group therapy for students with a communication difficulty, such as articulation, stuttering, voice disorders, regional or foreign dialects, language usage, and speech and language impairments due to hearing loss. It is a continuation of SPCH 30 for students who require further instruction. This course may be taken for a maximum of 4 units. This course is offered on a Credit/No Credit basis. (Formerly SPCH 50.2)

SPCH 32 (Not degree applicable)
COMMUNICATION DISORDERS 0 UNIT
Class hours: 3 lecture
Open entry/open exit
Prerequisite: None.
Limitation on enrollment: consultation by a certified speech pathologist. This course is for those students who have speech, hearing, language difficulties such as articulation problems, stuttering, voice disorders, regional or foreign dialects, and speech impairments due to hearing difficulties. This course provides individual or small group therapy. Students may enter the clinic at any time during the semester. (Formerly SPCH 50.3)

SPCH 45 (Not degree applicable)
SPEECH-COMMUNICATION
FOR CAREERS 1 UNIT
Class hours: 1 lecture, 1 lab
Prerequisite: None.
This course is a practicum in speech-communication within a career or occupational role. Theory will serve as a basis for the practical application of communication principles. Effective interaction with superiors, coworkers and the public is stressed. (Formerly SPCH 65)

SPCH 46T (Not degree applicable)
INDIVIDUALIZED SPEECH 0 UNIT
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course explores topics in speech communications that are necessary for successful communication interactions to occur in

college or community settings and, in the workplace. This course may not be taught every semester. (Formerly SPCH 66)

SPCH 60
INTRODUCTION TO COMMUNICATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed for students who need an introductory course in oral communication. It will aid them in conversation, small group interaction, identification of speaking purposes, supporting ideas, and listening skills. Videotape is used as an evaluative tool.

SPCH 100
FUNDAMENTALS OF ORAL COMMUNICATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent or SPCH 60 or equivalent with a grade of Credit or "C" or higher.
This survey course is an overview of the diversity of human communication. The student develops an understanding of the communication process, the basic elements of improving interpersonal communication, and how to reduce communication apprehension. Also included are leadership and participation in small groups, interviewing, and speech preparation. This course includes oral presentations, and videotaping is used as an instructional tool. (Formerly SPCH 1)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. SPCH 100 and SPCH 132 combined: maximum credit, one course.*

SPCH 110
INTERCULTURAL COMMUNICATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 52 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the English Placement Process.
Corequisite: None.
Recommendation: None.
This course presents theories and principles of communication with an emphasis on application of concepts relevant to intercultural communication. It has a culture general approach focusing on variables which influence the communication process. Assignments and activities involve students in the analysis of different communication patterns across cultures and the exploration and practice of methods, skills and techniques for improving intercultural communication. (Formerly SPCH 11)
Transfer Credit: CSU; UC

SPCH 120 (CAN SPCH 8)
FUNDAMENTALS OF INTERPERSONAL COMMUNICATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 52 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the English Placement Process.
Recommendation: None.
The interpersonal communication course is an overview of theory and research on human communication. The course is designed with the opportunity to improve students communication skills in a variety of communication contexts. This course includes skill practices, oral presentations, and videotaping as instructional tools. (Formerly SPCH 12)
Transfer Credit: CSU; UC

SPCH 130 (CAN SPCH 4)
FUNDAMENTALS OF SPEAKING **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent or SPCH 60 or equivalent with a grade of Credit or "C" or higher.
This course focuses on the student's communication of ideas and concepts in various audience settings with emphasis on message organization, supporting amplifying materials, and analysis of audience diversity. Videotape is used as an evaluative tool. (Formerly SPCH 2)
Transfer Credit: CSU; UC

SPCH 132 (CAN SPCH 10)
FUNDAMENTALS OF SMALL GROUP COMMUNICATION **3 UNITS**
Class hours: 3 lecture and evaluation
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
As an introduction to the fundamentals of group discussion, this course focuses on the individual's communication in a small group setting; leadership in groups; group communication norms and processes with emphasis on problem solving and conflict reduction techniques. Videotape is used as an evaluative tool. (Formerly SPCH 7)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. SPCH 100 and SPCH 132 combined: maximum credit, one course.*

SPCH 140
ORAL INTERPRETATION OF LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent or SPCH 60 or equivalent with a grade of Credit or "C" or higher.
This course focuses on the analysis and interpretation of both prose and verse literature, including study of voice production, structure and content of literature, and techniques of effective oral communication of meaning from the printed page. (Formerly SPCH 4.1)
Transfer Credit: CSU; UC

SPCH 145
STORYTELLING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to the history of storytelling and the techniques of listening, preparation, and the presentation of stories to various age groups and in various settings. Students acquaint themselves with various literary genres--folk tales, sagas, epics, legends, myths, poetry, and drama. Videotape is used as an evaluative tool. (Formerly SPCH 10)
Transfer Credit: CSU

SPCH 150
ORGANIZATIONAL COMMUNICATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: READ 54 or ENGL 52 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the English Placement Process.
This course presents theories and principles of communication with an emphasis on application of concepts relevant to organizational communication. This course focuses on variables that influence the communication process within the context of business and organizations. The combined application of speaking, listening, writing, and reading skills in business and professional settings will be emphasized. Assignments and activities involve students in the analysis of different communication patterns within organizations and the exploration and practice of methods, skills and techniques for improving communication within the professional setting.
Transfer Credit: CSU

SPCH 160
PARLIAMENTARY PROCEDURE **1 UNIT**
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
This course entails an examination of principles, practices and procedures in formal deliberation. Emphasis is placed on parliamentary law. (Formerly SPCH 6.1)
Transfer Credit: CSU

SPCH 165
GROUP PROCEDURE 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: SPCH 160 or equivalent with a grade of Credit or "C" or higher.
This course addresses leadership functions, techniques of cooperative problem solving, types of organizations, creating new organizations, and informal deliberation. (Formerly SPCH 6.2)
Transfer Credit: CSU

SPCH 229
SPEECH AND LANGUAGE DEVELOPMENT IN CHILDREN 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to provide the student an understanding of how speech and language develops in normal monolingual and bilingual children and what factors characterize language delay or a language disorder in children with special needs, including exposure to standardized tests and measures of language development. Practice will be provided in eliciting and analyzing speech/language samples from children representing native and non-native speakers and demonstrating normal and delayed speech/language skills. It is recommended for students majoring in speech pathology, the Speech-Language Pathology Assistant Program, elementary education, preschool or special education. (Formerly SPCH 9)
Transfer Credit: CSU

SPCH 235
FUNDAMENTALS OF ARGUMENTATION AND PERSUASION 3 UNITS
Class hours: 3 lecture and evaluation
Prerequisite: Completion of ENGL 100 with a grade of Credit or "C" or higher.
This course focuses on argument and persuasion in the context of speech communication. This course examines the formation of arguments, the quality and types of evidence used to support claims, the use of language, and the analysis of fallacies. In addition, the course covers the role of the speaker/author, audience and message in argument. Emphasis is on the integration of critical thinking principles with techniques of effective argument, with focus on critiques, essays, debate, and speech writing and delivery. (Formerly SPCH 8)
Transfer Credit: CSU; UC

SPCH 236
FORENSICS FOR ONE TOURNAMENT 1 UNIT
Class hours: 1 lecture/2 lab
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with opportunities to acquire basic oral communication, organizational, and research skills while gaining self-confidence and reducing speaking anxiety. Workshop includes competition at intercollegiate speech and debate tournaments. This course is recommended for all Speech majors. This course may be repeated for a maximum of 4 units. (Formerly SPCH 5.1)
Transfer Credit: CSU

SPCH 237
FORENSICS FOR TWO TOURNAMENTS 1 UNIT
Class hours: 1 lecture/2 lab
Open entry/open exit
Prerequisite: None.
Corequisite: SPCH 236.
Recommendation: None.
This course provides students with numerous opportunities to improve oral communication, organizational, and research skills while developing self-confidence and reducing speaking anxiety. Workshop includes competition at intercollegiate speech and debate tournaments, and may also include on-campus and/or community speaking opportunities. Emphasis is on student competition and events development. This course is recommended for all Speech majors. This course may be repeated for a maximum of 4 units. (Formerly SPCH 5.2)
Transfer Credit: CSU

SPCH 238
FORENSICS FOR THREE TOURNAMENTS 1 UNIT
Class hours: 1 lecture/2 lab
Open entry/open exit
Prerequisite: None.
Corequisite: SPCH 236 and SPCH 237
Recommendation: None.
This course provides students with numerous opportunities to compete in multiple events at intercollegiate speech and debate tournaments, and also includes on-campus and/or community speaking opportunities. Intensive improvement of oral communication, organizational, and research skills is emphasized, along with commitment to participate in multiple facets of the program. This course, recommended for all Speech majors, develops scholarship, leadership, a strong team ethic, and an appreciation for the academic competitive experience. This course may be repeated for a maximum of 4 units. (Formerly SPCH 5.3)
Transfer Credit: CSU

SPCH 239
FORENSICS WORKSHOP 2 UNITS
Class hours: 1 lecture, 3 lab
Prerequisite: None.
Any person anxious to develop verbal confidence is encouraged to enroll in the Forensic Workshop. Workshop includes speaking opportunities before audiences at Intercollegiate speech tournaments and community organizations such as Kiwanis, Lions, Rotary, etc. This course may be taken for a maximum of 8 units. (Formerly SPCH 5)
Transfer Credit: CSU

SPCH 240
ORAL INTERPRETATION: READERS' THEATRE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course offers further study of oral interpretation principles emphasizing dramatic literature through preparation and performance of a Readers' Theater production. Videotape is used as an evaluative tool. (Formerly SPCH 4.2)
Transfer Credit: CSU; UC

SPCH 271
VOICE AND ARTICULATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to help the student learn how voice and speech are produced by a study of anatomy and physiology of the speech and hearing mechanism and to learn how to use these mechanisms effectively and efficiently for oral communication. Students will learn phonetic transcription skills using the International Phonetic Alphabet (IPA) to assist their work on their own communication skills emphasizing precise articulation. Distinctive features of loudness, rate, pitch variation, vocal variety and controlled respiratory patterns will also be studied. (Formerly SPCH 3)
Transfer Credit: CSU

SPEECH-LANGUAGE PATHOLOGY

(Health Occupations)

SLP 100
INTRODUCTION TO SPEECH AND LANGUAGE PATHOLOGY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course introduces foundational skills and principal theories for clinical management of

individuals with communicative disorders. Linguistic and cultural variations will be explored. Legal and ethical scope of practice pertinent to roles in the speech-language pathology fields will be delineated.
Transfer Credit: CSU

SLP 110
NORMAL COMMUNICATION, DISORDERS, AND DIFFERENCES 4 UNITS
Class hours: 4 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: A&P 120 or equivalent with a grade of Credit or "C" or higher.
This course focuses on normal verbal and non-verbal communication across the life span, including an understanding of how the different areas of language contribute to the total communication process. Students will learn what distinctive features constitute normal speech, language and hearing in a multicultural society. Observation techniques, assessment and intervention tools will be introduced.
Transfer Credit: CSU

SLP 120L
PHONETICS LAB 1 UNIT
Class hours: 3 lab
Prerequisite: SLP 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: SPCH 271.
Recommendation: None.
This is a skills lab designed to provide the student with practice in phonetic transcription skills. Students will transcribe normal and disordered speech using the International Phonetic Alphabet (IPA) for broad transcription. Linguistic variations and regional dialects will be addressed. This course may be taken for a maximum of three units.
Transfer Credit: CSU

SLP 125
CHILDHOOD DISORDERS AND TREATMENT 5 UNITS
Class hours: 4 lecture/3 lab
Prerequisite: SLP 100 and SLP 110 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: A&P 120 or equivalent with grade of Credit of "C" or higher.
This course focuses on screening procedures and treatment interventions used for speech, language and hearing disorders in children in educational and healthcare settings. The student will learn to use observational checklists, administer screening assessment tests and complete related therapeutic protocol forms.
Transfer Credit: CSU

SLP 230
ADAPTIVE COMMUNICATION TECHNOLOGY 1.5 UNITS
Class hours: 1.5 lecture/0.5 lab
Prerequisite: Completion of SLP 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course introduces the student to the needs of non-oral children and adults, as well as the preparation, use and maintenance of selected adaptive communication equipment. Emphasis is placed on the collaborative use of assistive equipment for speech, language and hearing disorders.
Transfer Credit: CSU

SLP 235
ADULT DISORDERS AND TREATMENT 5 UNITS
Class hours: 4 lecture/3 lab
Prerequisite: SLP 125 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of SLP 125 and includes an introduction to the different clinical settings in which the speech-language pathology assistant may work. The course focuses on screening procedures and treatment interventions used for speech, language, and hearing disorders in adults.
Transfer Credit: CSU

SLP 240
CHILDHOOD FIELD EXPERIENCE 2.5 UNITS
Class hours: 1 lecture/12 lab (9 weeks)
Prerequisite: SLP 120L, SLP 125, and SPCH 229 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The field experience will provide the student with the opportunity to perform speech-language pathology assistant responsibilities with children under appropriate supervision.
Transfer Credit: CSU

SLP 245
ADULT FIELD EXPERIENCE 2.5 UNITS
Class hours: 1 lecture/12 lab (9 weeks)
Prerequisite: SLP 235, SLP 240, and SPCH 229 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The field experience will provide the student with the opportunity to perform speech-language pathology assistant responsibilities with adults under appropriate supervision.
Transfer Credit: CSU

TECHNICAL MATHEMATICS

(Technology Division)
(FOR ADDITIONAL COURSES SEE MATHEMATICS)

TM 50
TECHNICAL MATHEMATICS 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
Corequisite: None.
Recommendation: None.
This course is an introduction to the principles of algebra, geometry, and basic trigonometry as needed by students planning to work in any area of technology. Topics are covered which have particular emphasis on equations and formulas found in the shop area and drafting labs. Calculations of area, volume and layout are stressed. Conversions between English and metric measurements are introduced. The students will learn to solve right angle trigonometry problems and will learn how to find solutions to oblique triangles using the law of sines and the law of cosines. (Formerly TM1.2)

TM 54
MATHEMATICS FOR COMPUTER TECHNOLOGY 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the Math Placement Process.
This course will cover basic arithmetic processes using binary, octal and hexidecimal numbering systems. Systems of binary code such as BCD and ASCII will be introduced. There is an extensive coverage of Boolean algebra postulates, simplification techniques and applications as used in both computer software and hardware design. BASIC, a computer language, will be used to emphasize applications in technology. (Formerly TM 14)

THEATRE ARTS

(Fine Arts / Communications Division)

TH 101 (CAN DRAM 18)
INTRODUCTION TO THE THEATRE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This broad survey of the entire theatre field focuses on modern theatre practice and theory. Some historical background is provided. Topics

include stage lighting and design, acting and directing, properties and costume, theatre architecture, make-up, career opportunities, and playwriting. (Formerly TH 1)
Transfer Credit: CSU; UC

TH 102
HISTORY OF THE CLASSICAL THEATRE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None
This course is designed to introduce the student to the history and literature of the theatre from ancient times to the Renaissance. The role of theatre in human affairs will be explored, and particular attention will be given to the way theatre shapes--and is shaped by--the cultural, intellectual, and political forces of its time. (Formerly TH 2)
Transfer Credit: CSU; UC

TH 103
HISTORY OF THE MODERN THEATRE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed to introduce the student to the history and literature of the theatre from French Classicism to the 20th Century. The role of theatre in human affairs will be explored, and particular attention will be given to the way theatre shapes--and is shaped by—the cultural, intellectual, and political forces of its time. (Formerly TH 3)
Transfer Credit: CSU; UC

TH 104
HISTORY AND APPRECIATION OF MUSICAL THEATRE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the history and literature of the musical theatre from mid-19th century to present day. The course will explore the stylistic distinctions found in the musical as well as its social and cultural significance. Emphasis is placed on the contributions and influence of the individual writer, composer, or lyricist. (Formerly TH 4)
Transfer Credit: CSU; UC

TH 105
INTRODUCTION TO MUSICAL THEATRE TECHNIQUES **3 UNITS**
Class hours: 2 lecture/2 lab, plus 2 hrs arr.
Prerequisite: None.
This course introduces the student to performance and audition techniques for musical theatre. Emphasis is placed on character development through scene study and song analysis, as well as vocal production and psychomotor awareness exercises. This course may be taken for a maximum of 12 units. (Formerly TH 5)
Transfer Credit: CSU; UC

TH 108
IMPROVISATION FOR THE THEATRE **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
In this course, students will learn how to act without a script. The focus will be on improvisational performance, but students will also learn how improvisation is used in actor training and as a tool for rehearsing traditional plays. Class members will participate in exercises designed to free their natural ability in all acting situations. This course may be taken for a maximum of 7 units. (Formerly TH 9)
Transfer Credit: CSU; UC

TH 109
REMOUNTING A PRODUCTION **2 UNITS**
Class hours: 1 lecture/4 lab
Prerequisite: TH 130A or TH 130B or TH 130C or audition or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
Students in this course will remount a major theatrical production. This particular course is for those cast in a show previously produced. This course may be taken for maximum of 8 units.

TH 110 (CAN DRAM 8)
FUNDAMENTALS OF ACTING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
This course is an introduction to acting methods and exercises. It is appropriate for the beginner, but it also lays a strong foundation for students who would like to pursue a career in acting. Students will perform regularly on stage, and will learn to analyze scenes and monologues. This course may be taken for a maximum of 7 units. (Formerly TH 10)
Transfer Credit: CSU; UC

TH 111 (CAN DRAM 22)
INTERMEDIATE ACTING TO CHARACTERIZATION **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: TH 110 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in acting methods and practices, with particular focus upon creating exciting, believable characters. Students will learn to find elements from their own lives to use in characterization, and then to explore cultures and walks of life other than their own. (Formerly TH 11)
Transfer Credit: CSU; UC

TH 114
VOICE FOR ACTING **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: None.
This course presents vocal techniques to free and develop the actor's voice. It includes exercises in relaxation, physical awareness, and proper breathing, as well as in the development of diction, range and projection as required for theatrical performance. (Formerly TH 14)
Transfer Credit: CSU; UC

TH 115
STAGE MOVEMENT AND COMBAT **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
This is an introduction to basic stage movement and combat for the actor. Emphasis will be placed on physical and spatial awareness, using movement creatively in characterization, and developing confidence in the physical self. Various stage combat techniques will be covered so that students can fully choreograph their own stage fights. This course may be taken for a maximum of 6 units. (Formerly TH 15)
Transfer Credit: CSU; UC

TH 117
STAND-UP COMEDY **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a complete course in stand-up comedy from material development to performance. The student will create a comic persona, write several routines, and performs these routines at venues both on-and off-campus. Field trips to local comedy clubs will be arranged. This course may be taken for a maximum of 6 units. (Formerly TH 17)

TH 120 (CAN DRAM 12)
THEATRE STAGECRAFT **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course introduces the student to the principles and basic techniques of theatrical scenery construction. The class will be involved in scene shop procedures and practices, safe tool usage, materials selection, and fabrication methods. (Formerly TH 20)
Transfer Credit: CSU; UC

TH 123 (CAN DRAM 14)
STAGE MAKE-UP **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course provides instruction in techniques

of theatrical make-up. Crew assignments in college productions are required. This course may be taken for a maximum of 6 units. (Formerly TH 23)
Transfer Credit: CSU; UC

TH 130
REHEARSAL AND PERFORMANCE FOR THE MINOR ROLE **1 UNIT**
Class hours: 0.5 lecture/2.5 lab
Prerequisite: By audition.
Corequisite: None.
Recommendation: None.
Students in this course will rehearse and perform a major theatrical production. Students should contact the Theatre Department for a schedule of audition dates. This particular course is for those casts in "minor" roles. The course may be taken for a maximum of 4 units. (Formerly TH 30.1/ TH 130A)
Transfer Credit: CSU; UC

TH 131
REHEARSAL AND PERFORMANCE FOR THE SUPPORTING ROLE **2 UNITS**
Class hours: 1 lecture/4 lab
Prerequisite: By audition.
Corequisite: None.
Recommendation: None.
Students in this course will rehearse and perform a major theatrical production. Students should contact the Theatre Department for a schedule of audition dates. This particular course is for those casts in "supporting" roles. The course may be taken for a maximum of 8 units. (Formerly TH 30.2/TH130B)
Transfer Credit: CSU; UC

TH 132
REHEARSAL AND PERFORMANCE FOR THE LEADING ROLES **3 UNITS**
Class hours: 1 lecture/7 lab
Prerequisite: By audition.
Students in this course will rehearse and perform a major theatrical production. Students should contact the Theatre Department for a schedule of audition dates. This particular course is for those cast in "major" roles. The course may be taken for a maximum of 12 units. (Formerly TH 30/TH 30.3/TH 130C)
Transfer Credit: CSU; UC

TH 133
STAGE CREW ACTIVITY **1 UNIT**
Class hours: 0.5 lecture/2.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to backstage crew skills and duties in connection with the mounting of college plays. The student will be assigned to running or preparation crews as scenery, lighting, costumes, sound, props, makeup, or house management. This course may be taken for a maximum of 4 units. (Formerly TH 31.1/TH 131A)
Transfer Credit: CSU; UC

TH 134
TECHNICAL PRODUCTION **2 UNITS**
Class hours: 1 lecture/5 lab
Prerequisite: None.
This course introduces the student to technical theatre work in connection with the mounting of college plays. Emphasis is on the design and preparation of scenery, lighting, costume, sound, props, and makeup. Students may also be assigned to a running crew for some of their lab hours. This course may be taken for a maximum of 8 units. (Formerly TH 31.2/TH 131B)
Transfer Credit: CSU; UC

TH 136
TOURING THEATRE PRODUCTION FOR SUPPORTING ROLES **2 UNITS**
Class hours: 1.5 lecture/1.5 lab
Prerequisite: By audition.
In this course students in supporting roles prepare one-acts plays, “story theatre” programs, or improvisational performances, which are taken on tour and performed for the community. This course may be taken for a maximum of 8 units. (Formerly TH 36)
Transfer Credit: CSU

TH 137
TOURING THEATRE PRODUCTION FOR LEADING ROLES **2 UNITS**
Class hours: 1.5 lecture/2.5 lab
Prerequisite: By audition
Corequisite: None.
Recommendation: None.
In this course students in leading roles prepare one-acts plays, “story theatre” programs, or improvisational performances, which are taken on tour and performed for community organizations and schools. This course may be taken for a maximum of 8 units.
Transfer Credit: CSU

TH 140
THEATRE DANCE– BEGINNING JAZZ **2 UNITS**
Class hours: 4 studio hours
Prerequisite: None.
This course is an introduction to jazz dance styles and techniques. Emphasis is on mastering the fundamental skills basic to jazz dance technique and artistic performance. This course may be taken for a maximum of 4 units. (Formerly TH 40)
Transfer Credit: CSU; UC

TH 141
THEATRE DANCE – INTERMEDIATE JAZZ **2 UNITS**
Class hours: 4 studio hours
Prerequisite: TH 140 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the development of jazz dance techniques and style begun in TH 140. Emphasis is on mastery of more complicated jazz dance combination patterns and their performance. This course may be taken for a maximum of 4 units. (Formerly TH 41)
Transfer Credit: CSU; UC

TH 142
THEATRE DANCE– BEGINNING TAP **2 UNITS**
Class hours: 4 activity
Prerequisite: None.
This course is an introduction to basic tap dance techniques and styles. Emphasis is on mastery of basic tap dance steps, rhythms, combination patterns and their performance. This course may be taken for a maximum of 4 units. (Formerly TH 42)
Transfer Credit: CSU; UC

TH 143
THEATRE DANCE– INTERMEDIATE TAP **2 UNITS**
Class hours: 4 activity
Prerequisite: TH 142 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of the development of tap dance techniques and style begun in TH 142. Emphasis is on mastery of more complicated tap dance steps, rhythms, combination patterns and their performance. This course may be taken for a maximum of 4 units. (Formerly TH 43)
Transfer Credit: CSU; UC

TH 145
COSTUME PRODUCTION FOR DANCE **1 UNIT**
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: None.
This course introduces the student to the fabrication of costume elements including patterning, machine sewing, hand sewing, dyeing, and decoration for dance. This course may be taken for of a maximum of 4 units. (Formerly TH 45)
Transfer Credit: CSU; UC

TH 146
MUSICAL THEATRE PRODUCTION FOR CHORUS **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: By audition.
Corequisite: None.
Recommendation: None.
This course involves participation in a major Theatre Department musical production as a member of the chorus. Activities may include singing, dancing, acting and/or playing a musical instrument. This course may be repeated for a maximum of 8 units.
Transfer Credit: CSU; UC

TH 147
MUSICAL THEATRE PRODUCTION FOR LEADING ROLES **3 UNITS**
Class hours: 1 lecture/7 lab
Prerequisite: By audition.
This course involves participation in a major Theatre Department musical production in a leading role. Activities will include singing, dancing, acting, and/or playing of musical instrument. This course may be taken for a maximum of 12 units. (Formerly TH 44/ TH 144)
Transfer Credit: CSU; UC

TH 150
APPRECIATION AND HISTORY OF THE MOTION PICTURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course examines the art of motion pictures and their impact upon society. It includes the viewing and critical analysis of feature films in various thematic categories. (Formerly TH 50)
Transfer Credit: CSU; UC

TH 151
MOTION PICTURES, RADIO AND TELEVISION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This is a broad survey of the history, theory, and production techniques of motion pictures, radio, and television, with emphasis on the form, content, and social impact of each. Students will participate in at least one field trip to a motion picture, radio, or television studio. (Formerly TH 51)
Transfer Credit: CSU

TH 152
INTRODUCTION TO BROADCASTING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
An introduction to the basic phases of radio and television broadcasting, this course covers historical, legal, and practical aspects of broadcasting. Students will learn microphone and camera techniques, the use of audio and videotape, studio procedure, and station staffing as well. Field trips to radio and television facilities are included. (Formerly TH 52)
Transfer Credit: CSU

TH 153
MOTION PICTURE PRODUCTION **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
This is an introductory course in the elements of motion picture production. Students create short films in the Super 8 mm. format. (Formerly TH 53)
Transfer Credit: CSU

TH 155
RADIO PRODUCTION **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course is a study and practice of production and departments involved in radio broadcasting. Students make actual broadcasts and recordings and are responsible for staffing and some programming of the campus radio station WPMD, 1700 AM and WPMD on the internet. This course may be taken for a maximum of 12 units. (Formerly TH 55)
Transfer Credit: CSU

TH 156
VIDEO PRODUCTION **3 UNITS**
Class hours: 1 lecture/5 lab
Prerequisite: None.
This class provides practice in basic video production and editing. The focus will be on field video production and off-line digital editing. Students will create video projects, work in teams, and learn about producing, directing, camera operation, and post-production of video. This course may be taken for a maximum of 12 units. (Formerly TH 56)
Transfer Credit: CSU

TH 159
WORLD FILM **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 or ENGL 155 or equivalent with a grade of Credit or "C" or higher or satisfactory completion of the English Placement Process. This course examines the art of motion pictures and its international and global impact. It includes the critical analysis of feature films as a reflection of national, ethnic and cultural values. (Formerly TH 59)
Transfer Credit: CSU; UC

TH 160
GREAT FILM DIRECTORS **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a survey course on the art and social impact of the film director. Through a series of collective film screenings, lectures, and discussions, students will analyze individual filmmakers. This course may be taken for a maximum of 6 units. (Formerly TH 60)
Transfer Credit: CSU; UC

TH 171
OCCUPATIONAL WORK EXPERIENCE IN THEATRE **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Theatre, in a declared Theatre major. One unit of Occupational Work Experience in Theatre requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the students/workers, the college, and the employers/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their approved projects are completed. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

TH 212
SCENE STUDY **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: TH 110 or equivalent with a grade of Credit or "C" or higher.
This is an intensive acting course focusing on the study and performance of challenging scenes from Chekhov, Ibsen, Strindberg, Shaw,

and Feydeau, as well as from Beckett, Pinter, Ionesco, Albee, and Mamet. Students will explore multiple objectives, acting between the lines, and techniques for absurdist plays and farce. (Formerly TH 12)
Transfer Credit: CSU; UC

TH 213
HISTORICAL
STYLES OF ACTING **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: TH 110 or equivalent with a grade of Credit or "C" or higher.
In this course students will learn acting methods and styles needed to perform in plays written before the 19th century. These may include plays from ancient Greece, Commedia dell'Arte, Shakespeare and his contemporaries, the Spanish Golden Age, English Restoration, French neoclassicism, Moliere, and 18th century authors of various nationalities. Students will also explore vocal production, movement patterns, costumes, and social modes and manners for each period study. (Formerly TH 13)
Transfer Credit: CSU; UC

TH 216
ACTING FOR THE CAMERA **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: TH 110 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed for the experienced acting student to adapt stage acting techniques for the motion picture and television camera. Emphasis will be placed on gaining an understanding of camera shots, angles, the shooting process, auditioning and actor behavior in front of the camera. This course may be repeated for a maximum of 6 units. (Formerly TH 16)
Transfer Credit: CSU

TH 221
COSTUMING FOR THE STAGE **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course introduces the student to the principles and methods of costume crafts for stage purposes. Although design and construction are accentuated, the approach to costuming for the stage is underscored by an historical perspective. This course may be taken for a maximum of 6 units. (Formerly TH 21)
Transfer Credit: CSU; UC

TH 222 (CAN DRAM 10)
STAGE LIGHTING **3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course introduces the student to the theory and practice of modern stage lighting. Emphasis is placed on the design and function of lighting equipment and control systems, as well as color theory, the historical perspective, and hands-on experience. (Formerly TH 22)
Transfer Credit: CSU; UC

TH 226
INTRODUCTION TO
SCENIC DESIGN **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course introduces the student to the basic principles and techniques of scenic design for the theatre. The class will be involved in the conceptualization, analysis, and actual exploration of the design process. Emphasis will be placed on the development of the individual's design capabilities and knowledge of contemporary design approaches. (Formerly TH 26)
Transfer Credit: CSU; UC

TH 254
ADVANCED MOTION
PICTURE PRODUCTION **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: TH 153 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in the elements and practice of motion picture production in super 8mm film. Students create and direct advanced motion picture projects. (Formerly TH 54)
Transfer Credit: CSU

TH 258
WRITING FOR
MOVIES AND TELEVISION **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course teaches the principles and practice of short-form writing for motion pictures and television. Feature length and short screenplays will be developed in class. Dramatic films and television programs will be analyzed and evaluated for their story structure. This course may be taken for a maximum of 6 units. (Formerly TH 58)
Transfer Credit: CSU

TYPING / KEYBOARDING

SEE BCOT
(Business Computerized Office Technologies)

WELDING

(Technology Division)

WELD 39 (Not degree applicable)
WELDING SHOP MATH **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisitie: None.
Recommendation: None.
This course is designed to familiarize the student with the shop math typical to the welding industry. Emphasis will be placed on the practical applications of measuring, measuring instruments, area, volume, fractions, decimals and the metric system.

WELD 43 / 44 (Not degree applicable)
WELDING OCCUPATIONAL
WORK EXPERIENCE **3-4 UNITS**
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Welding work experience 73 or 20 hours of employment per week for Welding work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) enrollment in the Welding vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for welding students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units.

WELD 50
BLUE PRINT READING
FOR THE WELDING TRADES **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to enable the student to read and interpret shop and structural drawings and prints. Emphasis is placed on structural shape identification, nomenclature, and symbols. (Formerly WELD 15)

WELD 51L
ADVANCED
ARC WELDING SPECIALTY LAB 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: WELD 210L or prior completion with a grade of Credit or "C" or higher.
Recommendation: None.
This is an advanced welding course designed to further develop advanced specialized welding skills in the structural, piping, sheet metal, and construction industries. This class may be repeated for a maximum of 4 units. (Formerly WELD 35)

WELD 52
PIPE WELDING FUNDAMENTALS 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: WELD 210L or equivalent with a grade of Credit or "C" or higher or current Los Angeles City or AWS certification for structural steel.
This advanced welding course is designed to utilize previously acquired welding skills and techniques on ferrous pipe in the rotated and fixed positions. Emphasis is placed on the welding of open groove pipe joints using the shielded metal arc welding (SMAW) process. Subjects covered will include joint preparation, alignment techniques, pre-heat and inter-pass temperatures, and post-heat requirements. Pipe flanges and fittings will be identified as to alloy content and applicable welding procedures. (Formerly WELD 40)

WELD 53
PIPE LAYOUT 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WELD 120 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This advanced welding course emphasizes practical techniques of pipe layout, terminology, use of layout tools, fittings, offset tie-ins, and rolled offset tie-in of parallel pipelines. Instruction in more advanced layout techniques will cover layout of calculated fittings involving pipelines of unequal sizes and compound offset tie-in fittings. (Formerly WELD 41)

WELD 54L
ADVANCED PIPE WELDING 2 UNITS
Class hours: 6 lab
Prerequisite: WELD 52 or equivalent with a grade of Credit or "C" or higher.
This is a course designed to refine the student's previously acquired pipe welding skills and prepare the student to pass a certification test in pipe welding. Emphasis is placed on welding ferrous pipe in the horizontal fixed (5G) and 45 degree inclined (6G) positions, using the shielded metal arc (SMAW), gas metal arc (GMAW), and gas tungsten arc (GTAW) welding processes. This course may be taken for a maximum of 4 units. (Formerly WELD 43)

WELD 55
MAINTENANCE WELDING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WELD 100 or WELD 110 and WELD 120 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This advanced course develops the techniques of maintenance welding including terminology, metal identification, heat treating, and welding of dissimilar metals. Emphasis is placed on following welding procedures as they relate to the job. (Formerly WELD 48)

WELD 100
WELDING FUNDAMENTALS 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
This is an introductory course designed to familiarize the student with the welding trade. Emphasis is placed on technical and practical applications of shielded metal arc, oxy-acetylene, gas metal arc, and gas tungsten arc welding processes as well as safety, weld testing, and the effects of welding heat on metals. (Formerly WELD 10)
Transfer Credit: CSU

WELD 110
OXYACETYLENE WELDING 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: None.
This is an introductory course with emphasis on welding, brazing, braze welding, and flame cutting using the oxy-acetylene process for the beginning student welder. Related classroom instruction is given in the technical aspects of the process. (Formerly WELD 12)
Transfer Credit: CSU

WELD 120
BEGINNING ARC WELDING 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: None.
Recommendation: WELD 100 or WELD 110 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment, or appropriate work experience.
This is a course designed for the beginning student welder covering the technical and practical aspects of the shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW) and submerged arc welding (SAW) processes. Welding may be done in all positions on carbon steels. Emphasis is also placed on the operation of manual and semi-automatic oxyacetylene flame cutting equipment. (Formerly WELD 14)
Transfer Credit: CSU

WELD 130
GAS TUNGSTEN ARC
WELDING FUNDAMENTALS 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: None.
Recommendation: WELD 100 or WELD 120 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment, or appropriate work experience.
This is a course designed to provide the student with technical and practical welding skills on ferrous and non-ferrous metals, using the gas tungsten arc welding process (GTAW) commonly known as TIG. Related classroom instruction covers technical data pertaining to this welding process. (Formerly WELD 25)
Transfer Credit: CSU

WELD 170
STRUCTURAL FABRICATION 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WELD 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: WELD 50 or equivalent with a grade of Credit or "C" or higher.
This is a course designed to develop welding skills and structural fabrication techniques on real or simulated metal construction projects. Emphasis will be on the safe operation of fabricating equipment as applied to structural steel components. (Formerly WELD 17)
Transfer Credit: CSU

WELD 200
INTERMEDIATE ARC WELDING 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: WELD 120 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is a course designed to refine the student's previously acquired welding skills and prepare the student to pass welding certification tests. Emphasis is placed on welding in the vertical and overhead positions and the welding of alloy steels with compatible filler metals using the shielded metal arc (SMAW), gas metal arc (GMAW), flux cored arc (FCAW), and submerged arc (SAW) welding processes. Related classroom instruction is given in the technical data pertaining to these processes. (Formerly WELD 20)
Transfer Credit: CSU

WELD 210L
ARC WELDING APPLICATIONS 2 UNITS
Class hours: 6 lab
Prerequisite: WELD 200 or equivalent with a grade of Credit or "C" or higher.
This advanced welding course is designed to prepare the student welder for structural steel welding certifications using the SMAW (Shielded Metal Arc Welding) and FCAW (Flux Cored Arc Welding) processes. This course may be taken for a maximum of 6 units. (Formerly WELD 30)
Transfer Credit: CSU

WELD 220
CERTIFICATION AND
LICENSING FOR WELDERS 2 UNITS
Class hours: 2 lecture
Prerequisite: WELD 200 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is a technical course for the advanced welding student. Material covered will include data on all approved modern welding processes, welding filler metals, approved welded joint design, and welding procedures. Special emphasis will be placed on welding symbols and American Welding Society (AWS) Structural Code specifications leading to Los Angeles City and AWS welding certifications. (Formerly WELD 33)
Transfer Credit: CSU

WELD 240
ADVANCED GAS TUNGSTEN
ARC WELDING LABORATORY 2 UNITS
Class hours: 6 lab
Prerequisite: WELD 130 or equivalent with a grade of Credit or "C" or higher.
This is an advanced welding course using the gas tungsten arc welding (GTAW) process. This course is designed to further the skills of the student in this process. Special emphasis is placed on the welding of ferrous and non-ferrous metals in the vertical position. This course may be taken for a maximum of 4 units. (Formerly WELD 38)
Transfer Credit: CSU

WELD 250L
GAS TUNGSTEN ARC
WELDING APPLICATIONS 2 UNITS
Class hours: 6 lab
Prerequisite: WELD 240 or equivalent with a grade of Credit or "C" or higher.
This advanced course is designed to further increase the manipulative skills and technical knowledge of the student welder using the gas tungsten arc welding (GTAW) process on .020" to .030" thickness metals as well as welding the root bead on high pressure pipe. All welding samples will comply with standards set by the American Welding Society or industry. This course may be taken for a maximum of 4 units. (Formerly WELD 46)
Transfer Credit: CSU

WOMEN'S STUDIES

(Humanities and Social Sciences Division)

WS 101
ISSUES FOR WOMEN
IN AMERICAN SOCIETY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Issues for Women in American Society is a multidisciplinary course that provides a foundation for interpreting gender issues in America. It examines the essential components of women's studies as an academic discipline; delineates theories of feminism and history of women's movements; evaluates the social construction and politics of gender; analyzes the intersection of gender with race, ethnicity, social class and sexual orientation; and identifies the issues of feminism in a global context.
Transfer Credit: CSU; UC

WS 102
WOMEN AND RELIGION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is a multidisciplinary course that investigates women's religious lives. It will center around the writing of women's experiences within world religions. The course will include such issues as identity, women's religious leadership, language and liturgy, rituals performed by women and sacred texts. Students will learn about world religions generally, and women's lives in these religions specifically.
Transfer Credit: CSU; UC

WS 103
WOMEN, THEIR BODIES
AND HEALTH 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will examine contemporary women's health issues and body image concerns. General topics will include images of women, lifespan changes, mental health, eating disorders, prevention of abuse and self-harm, social roles, sexual identity and sexuality, relationships, birth control and pregnancy. Current research on cardiovascular disease, cancer and other chronic conditions will be discussed as they pertain to women's issues. Students will develop the skills necessary to become wiser consumers of health and beauty-enhancing products. (This course is not open to students currently enrolled or who have completed HED 103)
Transfer Credit: CSU

WOODWORKING MANUFACTURING TECHNOLOGIES

(Technology Division)

WMT 1 (Not degree applicable)
OPEN ENTRY / EXIT
WOODWORKING 0 UNIT
Class hours: 3 hrs. arr.
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This open entry/exit course is designed to provide between semester access to the woodworking program for students to develop, enhance, and refine their woodworking skills. Students are accepted into existing courses on a space-available basis dependent on the student's skills and needs and can exit when their individual goals have been met. This course is intended to facilitate basic fundamental skills for entry-level employment. This course may be taken until the end of the semester or 360 instructional hours, whichever comes first. (Formerly WMT 10)

WMT 43 / 44 (Not degree applicable)
WOODWORKING MANUFACTURING
TECHNOLOGIES OCCUPATIONAL
WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Woodworking Manufacturing work experience 73 or 20 hours of employment per week for Woodworking Manufacturing work experience

74. The employment must be in a job related to the student's educational goal.
Corequisite: Enrollment in 7 or more units, including Woodworking Manufacturing Occupational Work Experience, in a declared technology major. Three units of Woodworking Manufacturing Occupational Work Experience requires 180 non-paid hours of work or 225 paid hours of work per semester.
Work experience/career internship provides the opportunity for Woodworking Manufacturing Technology students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly WMT 73/74)

WMT 101
INTRODUCTION TO
WOODWORKING **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
This introductory woodworking course acquaints the students with the essential principles of woodworking. Topics include wood technology, use of hand tools, portable power tools, and basic machinery. Emphasis is placed on proper technique, safety, and shop policies for the woodworking facility. (Formerly FMT 1/WMT 10.1)
Transfer Credit: CSU

WMT 102
MACHINE
WOOD TECHNOLOGY **4 UNITS**
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course increases the student's skill in the use of hand tools, portable power tools, and machinery. Topics include wood technology and joinery as it pertains to panel construction in freestanding furniture casework. This course may be taken for a maximum of 8 units. (Formerly FMT 12/WMT 10.2)
Transfer Credit: CSU

WMT 103
MACHINE
WOOD TECHNOLOGY II **4 UNITS**
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course increases the student's skill in the use of hand tools, portable power tools, and machinery. The course will examine wood technology as it pertains to panel construction in freestanding furniture casework. Topics will include machine anatomy, set-up, and fundamental operations. This course may be taken for a maximum of 8 units. (Formerly WMT 10.3)
Transfer Credit: CSU

WMT 107
WOOD FINISHING **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
This course is designed to enable the student to understand the functions of equipment used in industrial finishing operations. The basic chemistry of lacquers, enamels, stains and glazes will be covered. Instruction and practice will include the use of brushes and the spray gun in coating various materials with emphasis on wood. This course may be taken for a maximum of 6 units. (Formerly FMT 11/WMT 10.7)
Transfer Credit: CSU

WMT 111L
INTRODUCTION TO
WOODWORKING LAB **1 UNIT**
Class hours: 3 lab
Prerequisite: WMT 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides the student who has completed WMT 101 the opportunity to hone and refine skills and complete projects required in the prerequisite course. This course may be taken for a total of 4 units. (Formerly WMT 11.1)
Transfer Credit: CSU

WMT 118
WOOD TURNING **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: WMT 101 and WMT 102 or WMT 103 or equivalent with grades of Credit or "C" or higher.
This course introduces students to the methods, tools, materials, and machinery used in woodturning. Students have the opportunity to create turned projects using the woodworking lathe. This course may be taken for a maximum of 4 units. (Formerly WMT 11.8)
Transfer Credit: CSU

WMT 130
FURNITURE DESIGN **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to introduce the student to the process of furniture design. Topics include conceptualization, drawing, engineering, ergonomics, style and mock-ups. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

WMT 132
CHAIR DESIGN
AND CONSTRUCTION **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a course in chairmaking for the advanced Woodworking Manufacturing Technology student. It includes the basic techniques of design, construction and production of chairs. The student will design and build both wood and exposed wood frame chairs. This course may be taken for a maximum of 8 units. (Formerly FMT 32/WMT 13.2)
Transfer Credit: CSU

WMT 134
FRAME MAKING **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course introduces the fundamental principles and techniques of frame making for upholstered furniture. Topics include design, engineering, layout, machine woodworking and frame assembly. This course may be taken for a maximum of 8 units. (Formerly FMT 31/WMT 13.4)
Transfer Credit: CSU

WMT 137
OUTDOOR FURNITURE **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: WMT 101 and WMT 102 or WMT 103 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.

Recommendation: None.
This course instructs students in the design and construction of outdoor furniture. Projects include tables, chairs, benches, lounges, stands and umbrellas. This course may be taken for a maximum of 10 units. (Formerly WMT 13.7)
Transfer Credit: CSU

WMT 148
FURNITURE MAKING AND MANUFACTURING **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course teaches basic elements of production furniture design, prototype building, and product evaluation. The course acquaints the student with all phases of furniture production as a profession. Students design, build, and test market furniture samples from which items will be selected for manufacturing in the Production Furniture Making and Manufacturing course (WMT 24.8). This course may be taken for a maximum of 8 units. (Formerly FMT 35/WMT 14.8)
Transfer Credit: CSU

WMT 151
INTRODUCTION TO CABINETMAKING **4 UNITS**
Class hours: 2.5 lecture/5.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to the methods, materials, tools, and machinery used in the construction of traditional and European cabinetry. Classroom topics include the history, design, fabrication, and safe use of woodworking machinery and materials involved in cabinet construction. (Formerly FMT 97.01/WMT 15.1)
Transfer Credit: CSU

WMT 153
32MM SYSTEM OF CABINETMAKING **4 UNITS**
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or "C" or higher.
In this course the student learns the foundational information and skills related to the 32mm system of cabinet manufacturing. It includes review of the system with hands-on experience in product design and layout of boring patterns, including machine operation in building 32mm cabinets. (Formerly FMT 14/WMT 15.3)
Transfer Credit: CSU

WMT 155
ARCHITECTURAL MILLWORK **4 UNITS**
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or "C" or higher or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course introduces the student to the methods, materials, tools, and machinery used in the manufacturing and installation of architectural millwork. Classroom topics include the history, design, fabrication, installation, and safe use of woodworking machinery and materials involved in architectural millwork and finished carpentry. This course may be taken for a maximum of 8 units. (Formerly FMT 97.03/WMT 15.5)
Transfer Credit: CSU

WMT 171
INTRODUCTION TO WOODEN BOAT BUILDING **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: WMT 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: WMT 103 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the methods and materials used in the construction of modern and traditional wooden boats. Classroom topics include the history, design, engineering, and safe use of woodworking techniques and materials involved in wooden boat construction. This course may be taken for a maximum of 6 units. (Formerly FMT 69.9/WMT 17.1)
Transfer Credit: CSU

WMT 181
INTRODUCTION TO COMPUTER OPERATIONS FOR CABINETMAKING AND DESIGN **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the student with the background and skills required to understand, research, purchase and operate basic woodworking and cabinetmaking computer design systems. This course may be taken for a maximum of 5 units. (Formerly FMT 61/WMT 18.1)
Transfer Credit: CSU

WMT 201
WOODWORKING WITH HAND TOOLS **4 UNITS**
Class hours: 2.5 lecture/5.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the hand tools used in woodworking. Topics include sharpening, tool identification, wood technology and hand plane adjustment for optimum performance. This course may be taken for a maximum of 8 units. (Formerly WMT 20.1)

WMT 202
ADVANCED MACHINE WOOD TECHNOLOGY **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course in advanced machine woodworking is designed to extend to the student an opportunity to increase skills in the use of machine woodworking tools and expand understanding of wood technology. This course may be taken for a maximum of 8 units. (Formerly FMT 22/WMT 20.2)
Transfer Credit: CSU

WMT 203
WOOD VENEERING **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: WMT 102, WMT 103 and WMT 201 or equivalent with grades of credit or "C' or higher.
Corequisite: None.
Recommendation: None.
This course introduces the student to the methods, materials, tools and equipment used to process wood veneers. Topics include material identification, veneer selection, pattern layout, substrate selection and clamping methods used to lay-up veneer on various types and shapes of substrates. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

WMT 211
THE WORKBENCH CLASS **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides the student with the background and skills required to research, design, purchase materials, select hardware, and manufacture a workbench. This course

may be taken for a maximum of 8 units. (Formerly FMT 97.02/WMT 21.1)
Transfer Credit: CSU

WMT 212
ROUTERS AND ROUTER TABLES 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: WMT 101 or WMT 151 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: WMT 102 or WMT 103 or equivalent with a grade of Credit or "C" or higher.
In this course students will design and manufacture "The Ultimate Router Table." The router table is one of the most versatile and essential pieces of equipment for any woodworker. Course topics include comparison and evaluation of routers available on the market, design, construction, and use of jigs and fixtures. This course may be taken for a maximum of 8 units. (Formerly WMT 21.2)
Transfer Credit: CSU

WMT 218
POLYCHROMATIC AND CLOSED FORM TURNING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WMT 101 and WMT 118 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: WMT 102 or WMT 103.
This advanced woodturning course is designed to enhance the student skill. Topics include polychromatic bowl construction, closed form vessel turning and other advanced skills. This course may be taken for a maximum of 4 units.
Transfer Credit: CSU

WMT 219L
WOODTURNING LAB 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 101 and WMT 118 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: WMT 102 or WMT 103.
This course allows students to perfect and hone skills acquired during previous woodturning courses. In this lab, students will design and construct woodturning projects of their choice that are relevant to the student matter being taught during the same time period. This course may be taken for a maximum of 10 units.
Transfer Credit: CSU

WMT 228L
PROJECT COMPLETION LAB 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WMT 101 or WMT 151 and WMT 102 or WMT 103 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides students with the necessary time and facility to continue working a project to completion. Instruction is project specific with emphasis on problem solving and detail. This course may be taken for a total of 8 units. (Formerly WMT 22.8)
Transfer Credit: CSU

WMT 229L
COMPREHENSIVE WOODWORKING MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 102 or WMT 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course allows students to perfect and hone skills acquired during previous comprehensive woodworking courses. In this lab, students will design and construct a project of their choice that is relevant to the subject matter being taught. This course may be taken for a maximum of 12.5 units. (Formerly WMT 22.9
Transfer Credit: CSU

WMT 233
MORRIS CHAIR 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 101, WMT 102 and WMT 103 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course in furniture making will challenge and improve the student's skills through the manufacturing of a historical chair, the Morris chair. Hand tools, machinery and hand power tools are used in an advanced setting. Topics include planning, manufacturing, utilizing solid wood joinery, complex laminations, subassembly and final assembly as well as finishing. The class focuses on the history and design of the Morris Chair, the first recliner. This course may be taken for a maximum of 12 units.
Transfer Credit: CSU

WMT 244
CHEST OF DRAWERS 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 102, WMT 103, and WMT 201 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This advanced course will reinforce skills learned in previous classes and challenge the student to demonstrate the ability to plan, design, fabricate and finish a chest of drawers. The course will allow the student more in-depth experience in solid-wood-panel side and frame-and-panel methods of construction. The focus will be on the carcass as well as on drawer construction. Topics include history, planning, design, fabrication and finishing as they pertain to building a chest of drawers. The course may be taken for a maximum of 8 units.
Transfer Credit: CSU

WMT 246
ROCKING CHAIR 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 102, WMT 103, WMT 132 and WMT 201 or equivalent with grades of Credit or "C' or higher.
Corequisite: None.
Recommendation: WMT 130
This advanced furniture making course introduces the student to the methods, materials, tools and machinery used in the fabrication of a rocking chair. This course may be taken for a maximum of 8 units.
Transfer Credit: CSU

WMT 248
PRODUCTION FURNITURE MAKING AND MANUFACTURING 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: WMT 148 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The course enables the students to work as a team in the manufacturing of a limited edition of student-designed furniture items for on-campus use. The course includes all the steps from setting up a furniture plant to building a finished furniture product. This course may be taken for a maximum of 12 units. (Formerly FMT 45/WMT 24.8)
Transfer Credit: CSU

WMT 249L
FURNITURE MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 101 and WMT 102 or WMT 103 or equivalent with grades of Credit or "C" or higher
Corequisite: None.
Recommendation: None.
This course allows students to perfect and hone skills acquired during previous furniture courses. In this lab, students will design and construct woodworking projects that are rele-

vant to the subject matter being taught during the same time period. This course may be taken for a maximum of 10 units. (Formerly FMT 36/WMT 24.9)
Transfer Credit: CSU

WMT 251
ADVANCED CABINETMAKING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WMT 153 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides the student additional opportunity to increase woodworking skills by the use of machine tools and by the development of projects in the cabinetmaking field. This course may be taken for a maximum of 8 units. (Formerly FMT 25/WMT 25.1)
Transfer Credit: CSU

WMT 253
ADVANCED 32MM SYSTEM OF CABINETMAKING 3 UNITS
Class hours: 1 lecture/7 lab
Prerequisite: WMT 153 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course increases student skill and knowledge related to the 32mm system of cabinetmaking. Topics include application of business skills as they relate to the cabinetmaking manufacturing industry and advanced 32mm production techniques. This course may be taken for a maximum of 9 units. (Formerly FMT 24/WMT 25.3)
Transfer Credit: CSU

WMT 258
MANTELS AND WALL SYSTEMS 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 102 or WMT 103 and WMT 155 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course introduces the student to the methods, materials, tools and machinery used in the design, manufacturing and installation of mantels and wall systems. Topics include the history, design, milling, assembly and installation of mantels and wall paneling. A major emphasis will be on the safe use of woodworking machinery and materials involved in architectural millwork. This course may be taken for a maximum of 8 units.
Transfer Credit: CSU

WMT 268
PRODUCTION CABINETMAKING AND MANUFACTURING 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: WMT 153 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course enables the students to work as a team in the design, manufacturing, and installation of cabinets for on-campus use. This course includes instruction in production techniques, materials science, cost estimating, time management, and scheduling. This class may be taken for a maximum of 15 units. (Formerly FMT 46/WMT 26.8)
Transfer Credit: CSU

WMT 269L
CABINETMAKING MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 153 or WMT 155 or equivalent with a grade of Credit or "C" or higher.
This course allows students to perfect and hone skills acquired during previous cabinetmaking courses. In this lab, students design and construct a cabinet project(s) that is relevant to the subject matter being taught during the same time period. This course may be taken for a maximum of 10 units. (Formerly WMT 26.9)

WMT 281
ADVANCED COMPUTER OPERATIONS FOR CABINETMAKING AND DESIGN 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: WMT 181 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides the student with the advanced skills and knowledge required to better utilize cabinet manufacturing computer systems and software. Classroom topics will include cutting list development, panel optimizing, job/cost estimating, and introduction to catalog writing for software customization. This course may be taken for a maximum of 5 units. (Formerly FMT 62/WMT 28.1)
Transfer Credit: CSU

WORD PROCESSING
SEE BCOT

(Business Computerized Office Technologies)

ZOOLOGY

(Science / Engineering / Math Division)

ZOOL 120
INTRODUCTION TO ANIMAL BIOLOGY 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a survey course in animal biology. Included are a taxonomic review of major invertebrate and vertebrate groups, animal adaptations and behavior, basic anatomy and physiology (with emphasis on vertebrates), cell biology, reproduction and development, genetics, ecology, and evolution. Laboratory dissection is used to illustrate these principles. This is designed as an entry level course for both majors and non-majors in biology. (Formerly ZOOL 10)
Transfer Credit: CSU; UC

The excellence of a college program is closely related to the excellence of the college faculty. The Cerritos College faculty represents a rich cross-section of scholarship, experience, and above all dedication to teaching. The faculty has helped earn a reputation for Cerritos as one of the finest community colleges in California.

The Faculty Senate of Cerritos College studies and recommends to the administration and Governing Board matters related to academic and professional standards and affairs of the college. The Senate consists of three officers and elected representatives from each of the college's instructional divisions.

ACKLAND, DEAN (1987)
Assistant Professor
Coordinator/Supervisor of Student Activities
B.S., California State University, Long Beach
M.A., Azusa Pacific

ALENIKOV, TERESA (2002)
Assistant Professor
Accounting/Finance
B.S., M.B.A., California State University, Long Beach

ALEXANDER, CYNTHIA (2000)
Instructor
Educational Technology
B.A., California State University, Long Beach
J.D., Western State University

ALVAREZ, LYDIA (2000)
Instructor
English
B.A., Pomona College
M.A., California Polytechnic State University, Pomona

ANDERSON, LOWELL (1962)
Professor
Real Estate
A.A., Weber Junior College, Utah
B.S., University of Utah
M.S., San Diego State University

ARAGON, RICHARD (1994)
Instructor
Automotive Mechanical Repair
B.A., California State University, Los Angeles

ARCE, CARLOS (1991)
Assistant Professor
Spanish
B.A., California State University, Chico
M.A., California State University, Sacramento

ARFWEDSON, CHRISTINE (1997)
Assistant Professor
Nursing Education
B.S., Nursing University of the State of New York
M.N., University of Phoenix

ASHE, SUZANNE (1986)
Professor
English
B.A., Rosary College, River Forest, IL
M.A., University of California, Los Angeles

ASIDDAO, VALENTIN (1992)
Associate Professor
English
B.A., Ateneo de Manila University
M.A., California State University, Long Beach

ASPEREN, ROBERT (1979)
Professor
Auto Body
A.A., Cerritos College

AUSTIN, ANTHONY (1980)
Associate Professor
Electronics
B.A., California State University, Los Angeles

BAILEY, KIM (1999)
Instructor
Nursing Education
M.S.N., University of Phoenix
Ph.D., University of London

BALMAGES, MARY (1992)
Professor
Court Reporting
A.A., Fullerton Junior College
B.A., University of California, Berkeley
M.A., Chapman University

BARON, TONY (1986)
Instructor
Automotive Technology
A.A., A.S., Pierce College
B.A., California State University, Los Angeles

BARRETT, BONNIE R. (1998)
Professor
Graphic Design/Computer Graphics
B.A., Immaculate Heart College
M.A., California State University, Los Angeles
M.F.A., California State University, Fullerton

BATHKE, JULIE (2002)
Instructor
Physical Therapist Assistant
B.S., California State University, Long Beach
M.S., University of Kentucky

BEALE, DARRYL K. (1973)
Professor
Psychology
Ph.D., University of Southern California

BELLAS, MONICA (2000)
Instructor
Anthropology
B.A., California State University, Northridge
M.A., Ph.D., University of California, Riverside

BELLO-GARDNER, SYLVIA (1987)
Associate Professor
Counselor
B.A., University of California, Los Angeles
M.S., California State University, Long Beach

BELROY, BARBARA (2000)
Instructor
Reading
B.A., M.S., California State University, Fullerton
M.A., California State University, Long Beach

BENDER, W. JON (1988)
Instructor
Automotive Technology
A.A., A.S., Los Angeles Pierce College
B.A., California State University, Los Angeles

BERKLITE, STEVEN L. (1985)
Professor
Automotive Technology
B.A., California State University, Long Beach
M.A., Pepperdine University

BERKOWITZ, ELLIE (2002)
Assistant Professor
Art
B.A., University of California, Santa Barbara
M.A., University of Texas, Austin

BERRY, PATRICIA A. (1978)
Professor
English as a Second Language
A.A., Santa Ana College
B.A., M.A., California State University, Fullerton

BETANCOURT, DAVID (1999)
Assistant Professor/Director of Bands
Music
B.A., Berklee College of Music
M.M., N. Arizona University

BETTINO, M. L. (1991)
Administrative Dean, Technology Training & Distance Education
B.A., M.A., California State University, Northridge

BLACKMUN, EUGENE (1983)
Professor
Business
A.A., Long Beach City College
B.S., Brigham Young University

BOARDMAN, CONSTANCE (1991)
Associate Professor
Biology
B.S., M.S., California State University, Long Beach

BOYLE, JOHN (1974)
Interim Vice President of Academic Affairs/Provost
B.A., M.A., University of California, Santa Barbara

BRAUN, SHARON K. (1997)
Assistant Professor
Child Development
M.A., Pacific Oaks

BRADBURY, JEFFERY (1999)
Instructor
Chemistry
B.S., Biola University
M.S., California Polytechnic State University, Pomona

BREIT, CRAIG A. (1985)
Assistant Professor
Theatre Arts
B.A., M.A., California State University, Long Beach

BRIDGES, GLORIA (1999)
Associate Professor/Counselor
B.A., University of California, Los Angeles
M.A., California State University, Dominguez Hills

BRODERICK, WILLIAM E. (1976)
Professor
Reading
B.A., M.Ed., University of Hawaii
Ph.D., University of Southern California

BURNS, MARLA (1990)
Professor
English
A.A., Saddleback College
B.A., California State University, San Jose
M.A., California State University, San Francisco

BUSCHAUER, ROBERT (1989)
Professor
Physics
B.S., California Polytechnical University, Pomona
M.A., Ph.D., University of California, Irvine

CABUTO, FROYLAN (2000)
Instructor
Spanish
B.A., M.A., California State University, Los Angeles

CAIN, GARY L. (1998)
Assistant Professor
Health, Physical Education/Athletics
B.A., M.A., Stanford University

CAINES, THOMAS R. (1997)
Instructor
Health, Physical Education/Athletics
B.A., California State University, Long Beach
M.Ed., Azusa Pacific University

CALLAHAN, PATRICK (1990)
Professor
Coordinator of Student Activities
B.A., California State University, Fresno
M.A., Azusa Pacific University

CAMERON, RICHARD D. (1996)
Instructor
Journalism
B.A., M.A., California State University, Fresno

CAMPOLO, ROBERT B. (1997)
Assistant Professor
Theatre Arts
B.F.A., School of Visual Arts
M.F.A., University of California, Los Angeles

CARNEY, DANIELLE (2000)
Instructor
English
B.A., M.A., California State University, Long Beach

CARROLL, DANI (2002)
Instructor
Dental Hygiene
A.A., Cerritos College
B.A., M.A., California State University, Long Beach

CASAS, RALPH P. (1995)
Associate Professor
Pharmacy Technology
A.A., Whittier College
M.A., Fuller Theological Seminary
M.A., Ph.D., Claremont School of Theology
Ph.D., University of Southern California

CHALMERS, GRAHAM (1991)
Associate Professor
Mathematics
B.A., University of Waterloo
M.A., Ph.D., University of California, Berkeley

CHAMRAS, SEVADA (2002)
Instructor
Chemistry
B.S., University of California, Los Angeles
Ph.D., University of California, Santa Barbara

CHAVEZ, ERLINDA (1989)
Instructor
Cosmetology
A.A., Cerritos College

CHESTER, ROBERT (1987)
Associate Professor
English
B.A., M.A., California State University, Northridge

CHOWEN, JUDITH (1981)
Associate Professor
Accounting
B.S., M.S., California State University, Long Beach

CHRISTIE, WILLIAM C. (1999)
Instructional Dean, Business
A.A., Cypress College
B.A., M.A., California State University, Los Angeles

CLARKE, MARY (1980)
Instructor
Mathematics
B.A., M.A., California State University, Long Beach

CLEMANS, SUSANNA (1986)
Professor
English
A.A., Orange Coast College
B.A., M.A., California State University, Fullerton

CODD, GERALDINE A. (1997)
Assistant Professor
Reading
B.A., Rider College
M.A., Seton Hall University

COLBATH, G. KENT (1989)
Professor
Earth Science
B.S., Oregon State University
M.S., University of California, Los Angeles
Ph.D., University of Oregon

COLGAN, ROBERT T. (1993)
Professor
Woodworking Manufacturing Technologies
A.A., Fullerton College
B.V.E., California State University, Long Beach

CONNAL, JANICE S. (1988)
Counselor
A.A., Fullerton College
B.A., Chapman College
M.A., California State University, Fullerton
Ph.D., University of California, Los Angeles

CONVEY, CYNTHIA (1996)
Manager of Employment Services/Faculty & Staff Diversity Officer
B.A., University of California, Irvine
J.D., University of California, Davis

COPPENGER, MICHAEL (1980)
Professor
Photography
A.A., Long Beach City College
B.A., California State University, Long Beach
M.A., Pepperdine University

CORDOVA, ERNESTO (2002)
Instructor
Mathematics
B.S., University of California, Los Angeles
M.S., California State University, Long Beach

COULTER, LUCIA (1987)
Associate Professor
English as a Second Language
B.A., California State University, Fullerton
M.A., American University in Cairo, Egypt

CROSS, KATHLEEN (1990)
Assistant Professor/Counselor
B.S., California State University, Dominguez Hills
M.A., Loyola Marymount University

DEFRANCE, FRANCINE L. (1976)
Instructional Dean, Humanities & Social Sciences
Professor
B.A., M.Ed., Temple University
M.A., California State University, Long Beach

DEMIAN, KAMAL A. (1997)
Instructor
Mathematics/Engineering
B.S., Ain Shams University, Cairo, Egypt
M.S., California State University, Long Beach

DOBSON, RANDY (2002)
Instructor
History
B.A., University of California, Riverside
M.A., California State University, Fullerton

DUFF, KIMBERLEY, (1999)
Instructor
Psychology
B.A., University of California, Santa Barbara
M.A., Ph.D., University of Illinois, Chicago

DUNROE, WILLIAM D. (1979)
Professor
Psychology
B.A., M.A., California State University, Fullerton
Ph.D., Claremont Graduate School

DURAN, AGNES H. (1987)
Professor
Reading/Office Technologies
B.A., M.A., California State University, Los Angeles

EDSON-PERONE, LORRAINE (1984)
Professor
Mathematics
B.A., California State University, Long Beach
M.S., University of LaVerne
M.A., California State University, Fullerton

EGAN, ISABELLE (1989)
Professor/Counselor
B.A., Marylhurst College
M.A., University of North Dakota
Ph.D., University of Oregon

ELIZONDO, SANDRA (2000)
Instructor
Business Computerized Office Technologies
B.S., California State University, Los Angeles
J.D., Loyola Law School

ENGQUIST, MARVIN (1990)
Professor
Administration of Justice
A.A., Cerritos College
B.S., M.S., Pepperdine University

ERNEST, ROGER (2000)
Instructor
English
B.A., California State University, Long Beach
M.A., California State University, Dominguez Hills

FABISH, DAVID M. (1994)
Associate Professor
English
B.A., California State University, Long Beach
M.F.A., University of Iowa

FAILOR, JOLEEN (1976)
Professor
Dental Assisting
A.A., Fullerton Junior College
B.V.E., California State University, Long Beach

FALCON, DENNIS P. (1997)
Assistant Professor
Political Science
B.A., California State University, Long Beach
M.A., Southern Illinois University

FARINA, MICHAEL J. (1989)
Professor
Accounting
A.A., Cerritos College
B.A., California State University, Fullerton
M.B.A., University of California, Irvine

FELDSTEIN, THERESE (1988)
Professor
Mathematics
B.S., M.S., Northern Illinois University

FERNANDEZ, CHRISTINA (2001)
Instructor
Photography
B.A., University of California, Los Angeles
M.F.A., California Institute of Arts

FERNANDEZ, WALTER I. (1995)
Assistant Professor
History
B.A., M.A., California State University, Northridge

FINKELSTEIN, HY L. (1975)
Professor
Management
B.A., M.B.A., California State University, Long Beach

FLORESCU, MIHAELA (2001)
Professor
French
M.A., Ph.D., University of California, Los Angeles

FOBI, CHARLENE (1988)
Professor
Nursing Education
A.D.N., B.S.N., University of Cincinnati
M.N., University of California, Los Angeles
Ed.D., Pepperdine University

FOLLETT, KAY S. (1981)
Professor
Disabled Student Programs & Services
B.S., University of Southern California
M.A., California State University, Los Angeles
Ph.D., University of Southern California

FORTNER, ANTHONY (1999)
Instructor
Woodworking Manufacturing Technologies
B.A., California State University, Long Beach

FRONKE, MARK J. (1992)
Professor
Accounting
B.S., University of Southern California

FUJIMOTO, NORMAN Y. (1994)
Instructional Dean, Science, Engineering and Mathematics
B.A., Loma Linda University
M.A.T., Andrews University

FUSCHETTO, SUSAN (2000)
Instructor
Computer and Information Sciences
B.A., National University
M.B.A., Pepperdine University

GAFFANEY, TODD W. (1975)
Instructor
Psychology
B.A., M.A., California State University, Northridge

GAIK, FRANK (1989)
Professor
English
B.S., McNeese State University
M.F.A., University of Arkansas
Ph.D., University of Southern California

GAYLORD, KENNETH (1991)
Instructor
Physical Education/Athletics
B.A., California State University, Long Beach
M.A., Azusa Pacific

GEORGE, PATTY (1999)
Instructor
Mathematics
B.A., M.A., M.S., University of California, Riverside

GERSITZ, LORRAINE (2000)
Librarian
B.A., M.L.S., Rutgers University

GLECKNER, CARRIE E. (1997)
Assistant Professor
Health, Fitness/Wellness
B.A., New York University
M.A., Ph.D., University of Southern California

GRADIN, SUSAN (1999)
Instructor
Child Development
B.A., University of California, Santa Barbara
M.S., Pepperdine University

GRINDEL, JOHN A. (1995)
Interim President
B.A., St. Mary's Seminary
S.T.L., M.A., The Catholic University
S.S.L., Gregorian University, Rome

GUEST-GRIFFITH, ALISON J. (1997)
Instructor
Art
B.A., University of Leicester, England
M.A., Ohio State University

GUY, GEORGINA (2000
Instructor/EOPS Fin Aid Counselor
B.A., M.S., California State University, Dominguez Hills
M.S., California State University, Fullerton

HAAS, JOHN H. (1998)
Instructor
History
B.A., California State University, Los Angeles
Ph.D., Claremont Graduate School

HALLINGER, DONALD (2001)
Instructor
Earth Science
B.S., Virginia Poly Tech Institute
M.A., Indiana University

HAMPTON, PRESTON (1989)
Professor/Counselor
A.B., University of California, Berkeley
M.A., Azusa Pacific University
Ed.D., University of Southern California

HANKS, WENDELL G. (1966)
Professor
Speech Communication
A.A., Glendale College
B.A., University of California, Santa Barbara
M.A., California State University, Northridge
M.S., California State University, Long Beach

HANSON, KENNETH J. (1984)
Professor
Electronics
B.A., California State University, Los Angeles

HARBUT, CHESTER (1989)
Professor
Biology
B.A., St. Ambrose College
M.S., University of California, Los Angeles
Ph.D., Tulane University

HAVICE, SALLY MORALES (1975)
Associate Professor
English
A.A., Cerritos College
B.A., M.A., California State University, Long Beach

HAYNES, W. DOUGLAS (1988)
Professor
Administration of Justice
A.A., Golden West College
B.S., M.S., California State University, Long Beach

HELBERG, BONNIE (1988)
Assistant Professor
Reading
B.A., M.A., California State University, Long Beach

HENRIQUES, JAMES (1988)
Associate Professor
Physics
B.S., M.S., Georgia State University

HENRY, FRED (1986)
Assistant Professor
Welding
Community College Ltd Service Credential, UCLA

HIRANANDANI, JAYANANDA (1992)
Professor
Engineering Design Technology
B. Tech., M. Tech., Indian Inst. of Tech., Kharagpur, W. Bengal, India
M.S., University of California, Berkeley

HOGGARD, KEVIN (1985)
Professor
Theatre Arts
B.A., M.F.A., University of California, Riverside

HOHLY, MARGARET (1984)
Professor
Computer and Information Sciences
B.S., M.S., California State University, Long Beach
M.S., California State University, Fullerton

HOLMES, CAROLYN R. (1996)
Assistant Professor
Nursing Education
B.S., M.S., California State University, Dominguez Hills

HOLMES, JUDI (2001)
Instructor
Disabled Student Programs and Services
B.A., M.S., California State University, Long Beach

HOLZGANG, AMY (2001)
Instructor
Sociology
B.A., University of California, San Diego
M.A., Ph.D., Syracuse University

HOPPE-NAGAO, ANGELA K. (1995)
Associate Professor
Speech Communication
B.A., M.A., California State University, Fullerton

HORVATH, ELLEN (1989)
Professor
Speech Pathology
B.A., Loyola Marymount
M.A., California State University, Long Beach

HOYLE, SHEELA (2000)
Instructor/Counselor
B.A., University of California, Berkeley
M.A., California State University, San Diego

HU, PHILIP (2002)
Instructor
English
B.A., University of California, San Diego
M.F.A., California State University, San Diego

HUBBERT, KIMBERLY (1999)
Instructor
Speech Communication
B.A., M.A., California State University, Fullerton

HUBER, ROBERT C. (1988)
Professor
Theatre Arts
B.A., California State University, Los Angeles
M.A., Humboldt State University
Ph.D., University of Southern California

HUGEN, MARK A. (1998)
Assistant Professor
Mathematics
A.B. Secondary, Dordt College
M.A., California State University, Fullerton

HUGHLETT, ROBERT C. (1973)
Professor
Director, Disabled Student Programs & Services
B.A., St. Mary's College
M.A., California State University, Los Angeles
Ed.D., Nova University

JAIME, JENNIE (2000)
Assistant Professor
Spanish
B.A., M.A., California State University, Los Angeles

JANOSOVA, ANITA M. (1992)
Associate Professor
Art and Design
B.F.A, M.F.A., School of Art Institute, Chicago

JENSEN, DEBORAH C. (1995)
Assistant Professor
Health, Physical Education/Athletics
B.S., California State University, Fullerton
M.S., Louisiana Tech University

JOHNSON JR, ADOLPH (1982)
Dean of Academic Affairs
B.A., University of California, Santa Barbara
M.A., M.P.A., Ph.D., University of Southern California

JOHNSON, BRUCE A. (1977)
Professor
Welding
A.S., Long Beach City College
B.V.E., California State University, Long Beach

JOHNSON, JEANNE EVA (1973)
Professor
Cosmetology
B.V.E., California State University, Long Beach

JOHNSON, WAYNE (1989)
Professor
Biology
A.A., El Camino College
B.S., M.A., California State University, Long Beach

JORDAN, WESLEY (1991)
Associate Professor
Mathematics
B.S., M.S., California State University, Long Beach

JUNTILLA, TIMOTHY J. (1997)
Assistant Professor
English
B.A., California Lutheran University
M.S., Illinois State University

KASTAN, CYNTHIA (1979)
Professor
Art and Design
Diplome Normal, Sorbonne, University of Paris
B.A., University of California, Berkeley
B.F.A., M.F.A., Otis Art Institute, Los Angeles

KEEGAN, GREGORY J. (1981)
Associate Professor
Automotive Technology
A.A., Cerritos College

KEENAN, DIANE (1989)
Professor
Economics
B.A., California State University, Long Beach
M.A., University of California, Los Angeles

KETCHAM, JULE (1999)
Instructor/Librarian
B.A., Chapman University
M.L.I.S., University of California, Los Angeles

KIEFFER, KEPNER K. (1984)
Professor
Accounting
A.A., Fullerton College
B.A., M.B.A., California State University, Fullerton

KOSUTH, KATHRYN (1999)
Assistant Professor
English
B.A., University of California, Los Angeles
M.A., California State University, Fullerton

KRAYER, ADELLE (2001)
Instructor
Dental Hygiene
A.A., Cerritos College
B.E., M.A., California State University, Long Beach

KREGER, ROBERT (1991)
Professor
Earth Science
A.A., Des Moines Area Community College
B.A., Eastern Illinois University
M.A., Ph.D., University of Illinois

KREMER, NICK (2000)
Executive Dean of Community, Industry and Technology Education
B.A., Stanford University
M.A., Claremont Graduate University

KROGUE, R. KENT (1972)
Professor
Biology
A.A., Long Beach City College
B.A., M.A., University of California, Los Angeles

LAGIER, JULIE (2001)
Instructor
Art History
B.F.A., Rhode Island School of Design
M.F.A., Bard College

LAVARIERE, CYNTHIA (2000)
Instructor
Co-Director of Forensics/Speech Communication
B.A., Point Loma Nazarene College
M.A., California State University, Fullerton

LAZOR, C.G. (1984)
Professor
Electronics
A.A., Cerritos College
B.S., University of the State of New York

LEON, RUBEN JR. (1990)
Assistant Professor
Mathematics
B.A., M.A., California State University, Long Beach

LE PERE, SUSAN C. (1995)
Associate Professor
Biology
B.A., M.A., California State University, Fullerton

LEWANDOWSKI, THOMAS (2002)
Instructor
Mathematics
B.S., University of Wisconsin
M.S., California State University, Long Beach

LEWELLEN, RITA (2002)
Instructor
Psychology
B.A., M.A., California State University, San Marcos

LIVINGSTON, ROBERT (2001)
Instructor
Business Administration
B.S., M.A., University of San Francisco

LOPEZ DE GAINES, CHRISTINA (1976)
Professor/Counselor
B.A., California State University, Long Beach
M.S., California State University, Fullerton

LOPEZ, CHRISTINE S. (1992)
Associate Professor
Piano/Choral
B.M., M.M., D.M.A., University of Arizona

LOPEZ, MANUEL (2001)
Instructor
Mathematics
B.S., M.A., University of California, Los Angeles
M.A., California State University, Fullerton

LOPEZ, THERESA (2000)
Assistant Dean, Career Services
B.S., M.S., California State University, Los Angeles

LOU, ZHENG (2000)
Professor
Computer and Information Sciences
B.E., University of Shanghai for Sciences & Technology
M.S., University of Massachusetts, Amherst

MACIAS, DORA (2003)
Instructor/Counselor
International Students Program
B.A., California State University, Fullerton
M.A., California State University, Dominguez Hills

MADDEN, JOHN D. (1998)
Professor
Philosophy
B.A., Kilroe Seminary
M.A., M. Phil., Ph.D., Yale University

MARIANI, ILVA (2000)
Instructor
Mathematics
B.S., University of Zagreb, Croatia
M.S., California State University, Long Beach

MARINE, REBECCA A. (1994)
Professor
Child Development
B.A., Tufts University
M.A., California State University, Los Angeles

MARKS, SANDRA A. (1995)
Associate Professor
Medical Assistant
B.S.N., Alverno College
M.S., California State University, Long Beach

MARTINEZ, ERLINDA (1995)
Vice President of Student Services/Assistant Superintendent
B.A., University of California, Riverside
M.S., California State University, Los Angeles
Ed.D., University of Southern California

MATA, PILAR (2000)
Assistant Professor
Mathematics
B.A., M.A., California State University, Fullerton

MATSUURA, KENNETH (1990)
Professor/Counselor
B.A., University of California, Santa Barbara
M.A., Ph.D., University of California, Los Angeles

MAZZOTTA, FRANK (1976)
Professor
Physical Education/Athletics
B.A., University of Utah
M.A., Pepperdine University

McFADDEN, WILLIAM (1982)
Professor
Mathematics/Computer Science
B.A., University of California, Los Angeles
B.S., University of California, Irvine
M.A., California State University, Long Beach

McGINNIS, JOHN (1988)
Dean of the Library and Learning Resource Center
Associate Professor
B.A., M.A., Loyola University
M.L.S., University of Southern California

McLARTY-SCHROEDER, JANET (1999)
Instructor
Astronomy
B.S., University of Iowa
M.S., University of Arizona

McPHERSON, MICHAEL (1988)
Associate Professor
Health, and Physical Education
B.A., California State University, Northridge
M.A., Azusa Pacific University

MEDINA, CECILIA (1976)
Professor
B.A., Notre Dame College
M.A., California State University, Los Angeles

MEDINA-VALIN, NIURKA (1989)
Professor
Spanish
B.A., M.A., California State University, Los Angeles
Ph.D., University of Southern California

MELLAS, DEAN (2000)
Instructor
Computer and Information Science
B.A., B.S., California State University, Fullerton

MILLER, ALICE (1985)
Instructor
Reading
B.A., Southern Illinois University
M.A., Arizona State University

MILLER, DONNA (1972)
Associate Professor
Speech Communication
B.A., California State University, Northridge
M.A., University of Southern California

MILLER, KIRK (1988)
Professor
Art and Design
A.B., University of California, Berkeley
B.F.A, M.F.A., Art Center College of Design

MITCHELL, VALENCIA (1989)
Professor
Librarian
B.A., Mills College
M.S., University of Southern California
M.A., California State University, Long Beach

MIXSON JR., FRANK L. (1998)
Assistant Professor
English
B.A., Drake University
M.A., California State University, Long Beach
Ph.D., University of Georgia

MOLONEY, PETER (2002)
Assistant Professor
Accounting/Finance
B.S., M.B.A., California State Polytechnic University, Pomona

MOORE, DEBRA (2001)
Associate Professor
Librarian
B.A., Oberlin College
M.A., Andover Newton Theological School
M.L.S., University of California, Los Angeles

MOOTZ, JOANA (2002)
Assistant Professor
English
B.A., M.A., University of California, Irvine

MORGAN, VYKKI (1992)
Professor
Educational Technology
A.A., Chaffey College
B.A., National University
M.A., Pepperdine University

MORIARTY, CYNTHIA (1992)
Professor
Business Computerized Office Technologies
A.A., Fullerton Junior College
B.S., California State University, Fullerton
M.B.A., University of La Verne

MOSER, BERNICE (1988)
Professor
Nursing Education
B.S.N., George Mason University
M.S.N., California State University, Los Angeles

MOTRUK, NINA (2001)
Assistant Professor
Cosmetology
A.A., Cerritos College
B.S., Southern Illinois University

MUELLER, BARBARA J. (1995)
Associate Professor
English
B.A., Kansas State University
M.A., California State University, Long Beach

MURRAY, KODEE (2001)
Instructor
Physical Education/Athletics
B.S., California Polytechnic State University, Pomona
M.A., California State University, Dominguez Hills
M.S., National University

NAJARIAN, HAGOP (1999)
Instructor
Art and Design
B.A., California State University, Long Beach
M.A., Temple University

NAKAMURA, DIANE (1986)
Assistant Professor
English as a Second Language
B.A., Marymount Manhattan College, New York
M.A., Columbia University

NAKASONE, HARRIET H. (1973)
Professor
Disabled Student Programs and Services
B.A., M.S., California State University, Long Beach

NAMALA, SOLOMON (1999)
Instructor
Economics
B.A., Lewis & Clark College
Ph.D., University of Utah

NANCE, WESLEY (1979)
Professor
Computer and Information Sciences
B.A., M.A., California State University, Long Beach
M.A., University of California, Santa Barbara

NEGRETE, BERNARD J. (1981)
Professor
Computer and Information Sciences
B.A., California State University, Long Beach
M.S., National University

NELSON, DAVID W. (1986)
Professor
Music
B.A., M.A., Ph.D., University of California, Santa Barbara

NGUYEN, PAMELA (2000)
Instructor
Mathematics
B.S., M.S., California State University, Long Beach

NGUYEN, PHUONG D. (1991)
Professor
Computer and Information Sciences
B.S., M.S., University of California, Davis

NIKDEL, MOJDEH (1997)
Instructor
Mathematics
B.S., M.A., Ph.D., Pennsylvania State University

NINOMIYA, KATHLYN (1986)
Professor
Dental Hygiene
A.A., Cerritos College
B.S., California State University, Long Beach

NOLAN, JENINE (1980)
Instructional Dean, Health Occupations
B.A., Whittier College
B.S.N., University of California, San Francisco
M.N., University of California, Los Angeles

NOVINSKI, PATRICIA (2001)
Assistant Professor
Cosmetology
B.E., California State University, Long Beach

OBASOHAN, VICTOR (1992)
Instructor
Political Science
B.S., M.A., Jackson State University

OLIVER, SUSAN (1995)
Instructor
History
B.A., George Washington University
M.A., Ph.D., University of California, Los Angeles

O'NEIL, SCOTT (2000)
Instructor
Mathematics
B.S., University of California, Santa Barbara
M.S., California State University, Long Beach

PAGE, ELIZABETH (1999)
Assistant Professor/Counselor (DSPS)
B.A., California State University, Dominguez Hills
M.A., California Polytechnic State University, San Luis Obispo

PAIGE, MATTHEW (1999)
Instructor
Reading
B.A., California Lutheran College
M.A., California State University, Long Beach

PALUMBO, LINDA (1988)
Professor
English
B.A., Rutgers University
M.A., Ph.D., University of Southern California

PARSONS, SUSAN (1985)
Associate Professor
Mathematics
B.A., M.A., California State University, Long Beach

PATRICK, CAROL (1997)
Administrative Dean of Counseling
B.A., University of Michigan
M.A., M.S., San Diego State University

PEEBLES, RANDY (1985)
Instructional Dean, Technology
B.A., M.A., California State University, Long Beach
Ed.D., Pepperdine University

PERALTA, TRUDY A. (1990)
Professor
English
A.A., Long Beach City College
B.A., M.A., California State University, Long Beach

PERKINS, SHERRY L. (1979)
Professor
Court Reporting
A.A., Cerritos College
B.V.E., M.A., California State University, Long Beach

PIERINI, MICHAEL S. (1995)
Instructor
Culinary Arts/Baking
A.A., West Los Angeles College
B.V.E., Caliornia State University, Long Beach

PIORKOWSKI, MARIJEAN (1977)
Professor
Physical Therapist Assistant Program
A.A., Orange Coast College
B.S., M.S., University of California, Los Angeles

PIRTLE, DIANNE D. (1997)
Assistant Professor
Sociology
B.A., M.A., California State University, Dominguez Hills

PORTIGAL, STEVEN J. (1991)
Professor
Art and Design
B.A., San Fernando Valley State
M.F.A., University of California, Los Angeles

POTTER, INGEBORG (1979)
Professor
German
B.A. M.A., California State University, Fullerton

PRATT, JOAN (1981)
Associate Professor
Nursing Education
B.S.N, Marquette University
M.S.N., California State University, Los Angeles

PRIBBLE, MARY (1984)
Professor
Paralegal
A.A., Citrus College
B.A., Whittier College
M.B.A., California State University, San Bernardino
J.D., Western State University

PRICE, TERRY L. (1975)
Professor
Plastics Technology
A.A., East Los Angeles College
B.A., California State University, Long Beach

PRINDLE, JEANINE V. (1977)
Professor
Health, Physical Education/Athletics
B.A., M.A., California State University, Long Beach
M.Ed., Azusa Pacific University

PRITCHARD, JR., GARY (1999)
Instructor
Music
B.A., Chapman University
M.A., Claremont Graduate School

QUAAS-BERRYMAN, FRANCIE (1999)
Assistant Professor
English
A.A., Santa Ana College
B.A., M.A., California State University, Fullerton

REAL, YANNICK (2000)
Instructor
Machine Tool Technology
B.S., University of Metz
M.S., California State University, Long Beach
Engr., University of Southern California

REECE, BRYAN S. (1991)
Associate Professor
Political Science
B.A., M.A., University of Southern California

RENTERIA, ROBERT A. (1975)
Professor
Reading
A.A., East Los Angeles College
B.A., M.A., California State University, Los Angeles
M.S., California State University, Fullerton

RIGBY, JEFFREY (1991)
Professor
Anthropology
B.A., M.A., University of California, Los Angeles

ROBERTS, LYNDA (1989)
Professor
Childhood Development
A.A., Long Beach Community College
B.A., M.A., California State University, Long Beach

ROBERTSON, CHARLES C. (1994)
Associate Professor
Automotive Collision Repair
A.A., Cerritos College
A.S., Long Beach City College
B.V.E., California State University, Long Beach

RODRIGUEZ, PHILIP C. (1974)
Professor
Director of Student Affairs
A.A., Cerritos College
B.A., California State University, Fullerton
M.A., California State University, Dominguez Hills
Ed.D., University of Southern California

ROMAN, HENRIETTA (2001)
Instructor/EOPS Counselor
B.A., California State University, San Diego
M.A., University of Redlands

ROMER, CHRISTINE (1981)
Associate Professor
Chemistry
B.A., M.A., California State University, Fullerton

ROMERO, VIRGINIA (1980)
Professor/Athletics Counselor
B.A., California State University, Long Beach
M.A., Azusa Pacific University
M.S., California Lutheran College

ROSE, LINDA D. (1994)
Assistant Professor
English
A.A., West Los Angeles College
B.A., M.A., California State University, Dominguez Hills

ROTHER, EDWARD (1989)
Professor
Architecture
B.S., M.Arch., University of Illinois
M.B.A., California State University, Fullerton
Ed.D., University of Southern California

RUSSELL, BARRY (1999)
Instructional Dean, Fine Arts and Communications
B.M., M.M., East Texas State University
Ph.D., University of Texas

RYOZAKI, EVELYN (1990)
Professor/Counselor (EOPS)
B.A., University of California, Los Angeles
M.A., California State University, Dominguez Hills

SALAZAR, PHILLIP (1981)
Professor
Counselor
B.A., California State University, Los Angeles
M.A., California State University, Long Beach
M.A., Whittier College

SAMPSON, LYNDA (1989)
Professor
Librarian
B.A., Scripps College
M.L.S., University of Southern California

SANDERSON, JANET (1986)
Professor
Physical Education/Dance
B.A., M.A., California State University, Los Angeles

SANTIAGO, RACHEL (2002)
Instructor
Nursing Education
A.S., Mt. San Antonio College
B.S., California State University, Fullerton
M.S., University of Phoenix

SARELL, GARY (1985)
Professor
Mathematics
B.A., California State University, Fullerton
M.A., California State University, Long Beach

SATTERFIELD, PHILLIP (2000)
Instructor
Administration of Justice
A.A., Long Beach City College
B.S., M.P.A., California State University, Long Beach

SCHMIDT, DEBRA L. (1990)
Professor
Accounting
B.A., California State University, Fullerton

SERWIN, LYNN A. (1997)
Assistant Professor
English
B.A., California State University, Fullerton
M.A., California State Polytechnic University, Pomona

SESTINI, SALLY (1986)
Professor
Mathematics
B.A., University of California, Los Angeles
M.S., California State University, Northridge

SHARP, MAGEYA (1983)
Professor
Business Computerized Office Technologies
B.A., California State University, Long Beach
M.S., Pepperdine University

SHIMAZU, CHERYL (1989)
Associate Professor
Chemistry
B.A., University of California, Irvine
M.S., California State University, Long Beach

SMITH, DANIEL (2002)
Instructional Dean, Physical Education/Athletics
B.S., M.S., Brigham Young University
Ph.D.,University of Illinois

SMITH, JEFFERY L. (1979)
Instructor
Physical Education/Athletics
B.S., Michigan State University
M.A., Azusa Pacific University

SMITH, RONALD L. (1992)
Instructor
Manufacturing Technology
B.S., California State University, Fresno

SODEN, BARBARA A. READ(1987)
Professor
Business Computerized Office Technologies
B.S., College Misericordia, Dallas, PA
M.S., Marywood College

SOTO, ARMANDO (1998)
Instructor/Counselor
B.A., University of California, Berkeley
M.A., San Diego State University

SPARKS JR., WILLIAM F. (1995)
Associate Professor
Co-Director of Forensics/Speech Communication
B.A., M.A., University of Southern California

SPETRINO JR., ALBERT A. (1973)
Professor
Disabled Student Programs and Services
B.A., Coe College
M.A., University of Iowa

STAPP, LESLIE E. (1999)
Instructor
Philosophy
M.A., Ph.D., University of California, Davis

STEIN, GERALD (1992)
Professor
Paralegal
B.A., California State University, Long Beach
J.D., Southwestern University School of Law

STEWART, PATRICIA J. (1972)
Professor
Dental Hygiene
A.A., Cerritos College
B.S., University of Southern California
M.A., California State University, Long Beach
Ph.D., University of Southern California

STILES, LYNN M. (1990)
Associate Professor
English
B.A., M.A., California State University, Long Beach

STUART, PEGGY J. (1995)
Associate Professor
Nursing Education
B.S.N. California State University, Long Beach
M.S.N., California State University, Los Angeles

SUGIHARA-CHEETHAM, JOANN (2002)
Instructor
English as a Second Language
B.A., University of California, Riverside
M.A., California State University, San Francisco

SUGIYAMA, CHRISTINE (1987)
Professor/Counselor
B.A., University of California, Los Angeles
M.A., California State University, Dominguez Hills

SWANSON, JOHN (1992)
Associate Professor
English
B.A., University of California, Berkeley
M.F.A., University of California, Irvine

SWIFT, ELIZABETH (1987)
Professor
Mathematics
B.A., M.A., California State University, Long Beach

TAIT, MARK E. (1995)
Instructor
Welding
A.A., Cerritos College
B.V.E., California State University, Long Beach

TAYLOR, KEVIN (1992)
Instructor
Automotive Technology
B.A., M.A., California State University, Long Beach

TORRES-BOWER, ANA (1992)
Professor
Philosophy
B.A., University of Puerto Rico
M.A., California State University, Long Beach

TROUP, JACQUELYN A. (1991)
Instructor
Sociology
B.A., M.A., Pepperdine University

UKITA, TRACI (2001)
Instructor/Counselor
B.A., University of California, Los Angeles
M.S., California State University, Long Beach

VALENZUELA, RAUL (1989)
Associate Professor/Counselor (EOPS)
B.A., University of California, Irvine
M.S., California State University, Fullerton

VAN DE MORTEL, JOSEPH (1988)
Associate Professor
Philosophy
B.A., California State University, Fullerton
M.A., University of San Francisco

VASQUEZ, GRACIELA (1994)
Title V Project Director
B.A., M.A., University of California, Los Angeles

VOORHIES, ANN (2002)
Instructor
Nursing Education
A.S., Purdue University
B.S., California State University, Dominguez Hills
M.S., California State University, Long Beach

WALDMAN, LINDA S. (1997)
Assistant Professor
Chemistry
A.S., Cypress Community College
B.S., California State University, Long Beach
M.S., Ph.D., University of California, Irvine

WALTHER, ROBERT S. (1992)
Professor
Microbiology
B.S., M.S., University of Southwestern Louisiana
M.A., University of California, Los Angeles

WATANABE, SUSAN (1991)
Associate Professor
Theatre Arts
B.A., California State University, Dominguez Hills
M.F.A, University of Southern California

WELL, GEORGIA (1983)
Associate Professor
Theatre Arts
A.A., Bakersfield Junior College
B.A.,M.A., California State University, Long Beach

WELLIVER, KAREN M. (1988)
Professor
Health, Physical Education/Athletics
B.A., M.A., California State University, Long Beach

WELLS, DOUGLAS (1989)
Professor
Physical Education/Athletics
B.S., M.S., University of Utah

WHITE, BRENDA J. (1993)
Associate Professor
Cosmetology
B.A., Union Institute

WHITSON, BEVERLY (1984)
Professor
English
A.A., Cerritos College
B.A., M.A., California State University, Fullerton

WILSON, CHRISTOPHER (2000)
Assistant Professor
Art and Design
B.A., University of California, Irvine
M.F.A., Loyola Marymount University

WILSON, JACK (1999)
Instructor
Computer and Information Sciences
B.A., M.S., California State University, Fullerton

WISSA, FARID (1988)
Professor
Engineering Design Technology
A.A., Cerritos College
B.V.E., M.A., California State University, Long Beach

WRIGHT, FRANK (1965)
Professor
Mathematics/Computer Science
B.S., Illinois State University
M.A., Rutgers University
Ed.D., University of Colorado

YEAGER, MARTHA (1982)
Associate Professor
English as a Second Language
B.A., State University of New York, Buffalo
M.A., Michigan State University

YOUNG, DAVID A. (1987)
Professor/Counselor
B.A., California State University, Northridge
M.A., University of California, Los Angeles
Ph.D., University of Southern California

ZEWAIL, MERVAT (1984)
Professor
Chemistry
B.S., University of Alexandria, Egypt
Ph.D., University of Pennsylvania

ANAYA, JOSE (2002)
Director of Economic Development
B.S., California State Polytechnic University, Pomona
M.B.A., University of Southern California

BOWMAN, TAYLOR (1999)
Web Administrator
B.J., B.F.A., University of Texas
M.F.A., University of North Texas

CHOMIAK, RENEE D. (2001)
CalWORKs Coordinator
A.A., Lincoln Land College
B.A., Oral Roberts University
M.A., Fuller Theological Seminary
M.S., California State University, Los Angeles

CHUNING, DENNIS M. (2002)
Vice President of Business Services/ Assistant Superintendent
B.A., California State University, Fullerton
M.S., University of Southern California

FISHER, MARK E. (2001)
Director of Human Resources
B.S., University of LaVerne
M.S., Chapman University

FRANKLIN, LAURA (2002)
Director of Community Education
B.S., University of Arizona
M.A., University of California, Los Angeles

GALE, CHARLES E. (2000)
Coordinator of Student Health & Wellness
A.A., Cerritos College
B.S., M.S., California State University, Long Beach

JONES, DONNA R. (1986)
Director of Purchasing
A.A., Cerritos College
B.S., San Diego State University
M.B.A., University of Redlands

KEUNG, CHI-CHUNG (1999)
Director of Marketing & Public Relations
B.S., University of Southern California
M.B.A., California State University, Los Angeles

KRICHMAR, LEE (1999)
Director of Computer Services
B.S., DeVry Institute of Technology
M.I.S., Claremont Graduate School

KURTZ, DANITA J. (1999)
Coordinator of International Students Program
B.S., Ohio State University
M.Ed., Florida Atlantic University

MURGUIA, STEPHANIE (2001)
Administrative Dean of Admissions & Records
A.A., Palomar College
B.A., California State University, San Marcos
M.A., University of San Diego

NUNNERY, WAYNE D. (1999)
Facilities Manager
A.A., A.A., A.A., Cerritos College

O'ROURKE, DANIEL M. (1974)
Assistant Director of Human Resources
A.A., Cerritos College

PAYNE, RAMONA (1999)
Accounting Manager
B.S., California State University, Los Angeles

RICHARDSON, STEVEN (2000)
Executive Director of Foundation
B.A., Biola University

RIZKALLAH, BERLANTI (1981)
Director of Fiscal Services
B.S., University of Cairo, Egypt
M.B.A., National University

ROBBINS-ANEMA, PATRICIA (2002)
Director of Foster & Kinship Care Education Programs
B.A., University of California, Los Angeles
M.S., California State University, Fullerton

SEBAK, MICHAEL (1979)
Director of Physical Plant
A.A., A..A., A.A., Cerritos College

SHELDON, CAROLINE (2001)
Director of Research & Planning
B.A., M.A., California State University, Fullerton

SIMS, JOANNE (2000)
Budget Manager
B.S., University of Redlands
M.B.A., National University

ADAMS, KEITH
(1970-1991)
Dean of Vocational Education/Extended Day

AGUIRRE, RUDOLPH
(1959-1987)
Art

ALLEGRE, JEAN
(1964-1991)
French

ALLEN, ROBERT
(1965-1991)
Business-Accounting

ANGLE, NANCY
(1989-1999)
Mathematics

ARCHER, DONNY
(1961-1981)
Mathematics

BAIRD, MARGARET W.
(1965-1983)
Office Occupations

BAKER, EVERETT D.
(1959-1989)
Chemistry

BALCH, DONALD
(1962-1979)
English

BALEY, JOHN D.
(1971-2003)
Mathematics/Computer Science

BARAMKI, HENRIETTA
(1977-2003)
Nursing Education

BARKER, MATILDA
(1989-2000)
Sociology

BARCLAY, LOIS
(1964-1979)
Cosmetology

BAXTER, DORRIS
(1957-1984)
Chemistry

BAYER, CONNIE
(1966-2002)
Health and Physical Education

BEAM, ROGER D.
(1975-1993)
Automotive Technology

BEHRENDS, SHARON
(1976-1996)
Nursing Education

BELLUGUE, ROLAND
(1991-2000)
French

BELROY, ALEXANDER
(1964-2003)
English

BETZ, CHARLES R.
(1962-1998)
Economics

BEULIGMANN, MARIE
(1981-1999)
Nursing Education

BEYKIRCH, HELEN M.
(1984-1993)
Counselor

BIBB, EVELYN R.
(1958-1986)
English

BLACK, JOHN G.
(1959-1989)
Accounting

BLACK, RHEA G.
(1964-1999)
Physical Education

BLASZCAK, FRANK
(1962-1988)
Machine Tool/Plastics Technology

BLISS, BETTY
(1965-1983)
Dental Assisting

BLOOMFIELD, EDWARD H.
(1969-2003)
Philosophy

BLUSKE, MARGARET
(1958-1979)
German

BOCK, FRANK
(1961-1988)
Anthropology/Theatre

BOGDANOVICH, JACK
(1971-1998)
Physical Education/Athletics

BONNYCASTLE, WILLIAM L.
(1960-1984)
English

BOODNICK, ALLAN
(1965-1991)
Counselor

BOS, ROBERT KEMP
(1958-1984)
Counselor

BRADY, LAWRENCE
(1970-1999)
Instructional Dean,
Fine Arts and Communications

BRADY, MELVIN
(1963-1991)
Business

BROADBENT, LINDSEY
(1966-79)
Technical Mathematics

BUFALINI, ELVIDIO G.
(1967-1986)
Counselor

BURNIGHT, RALPH F.
(1956-62)
President/Superintendent

CABEEN, CHARLES
(1958-1979)
Psychology

CALEY, DONALD
(1965-1987)
Marketing, Management, Business

CAMPBELL, CLINTON P.
(1965-1983)
Sociology

CANNON, JOHN P.
(1958-1980)
Earth Science

CARLSON, LELAND
(1965-1967)
Mathematics

CARLSON, NORMAN
(1982-1991)
Drafting

CASKEY, WILLIAM
(1961-1989)
Accounting

CATES, CARROLL
(1959-1988)
Physical Education

CHADWICK, RALPH G.
(1962-1980)
Associate Dean, Technology

COLE, JOSEPH C.
(1960-1973)
Psychology

CONOVER, SANDY
(1991-2002)
Nursing Education

COOK, EDWARD P.
(1965-1981)
Welding

CRACCHIOLO, EDITH E.
(1964-2000)
Psychology

CRANE, JULES
(1962-1989)
Biology

CROUSE, LOIS
(1963-1980)
Nursing Education

CUMMINGS, SELDEN
(1965-1993)
English

DARNALL, FLORENCE
(1959-1977)
Cosmetology

DAVIS, RICHARD H.
(1975-2003)
Computer and Information Sciences

DELEON, MANUEL
(1964-1991)
Art

DELYRE, WOLF R.
(1966-1977)
Dental Assisting

DENNY, PAUL
(1962-1979)
Business Education

DEREMO, GEORGE F., JR.
(1971-1999)
Art

DERMODY, EUGENE
(1965-1997)
History

DESFOR, DONALD
(1957-1989)
Photography/Physical Education

DIAZ, BEDAL
(1963-1989)
Counselor

DI CORPO, NELLO
(1959-1992)
Dean of Community/Continuing Education

DIGHERA, JAMES A.
(1960-1986)
Speech Communication

DOWDEN, JOHN
(1961-1991)
English

DOZIER, AMY L.
(1958-1974)
Physical Education and Recreation

DOZIER, PATRICIA
(1989-2001)
English as a Second Language

DOZIER, ROSE MARIE
(1964-1989)
French

DRANT, SANDRA
(1992-2003)
Court Reporting

DUNKIN, V. EDWIN
(1970-1984)
Electronics

ELIAS, ABUNDIO
(1969-1992)
Spanish

ERJAVEC, DONALD
(1965-1998)
Music

ESCOBAR DE PATRYLA, LILLIAN
(1974-1993)
Child Development

EVANS, WILLIAM
(1974-2002)
Accounting

FALLAR, MARGARET
(1965-1979)
Nursing Education

FEENEY, JOHN
(1958-1991)
Music

FENNER, WILBURT
(1972-1990)
Art

FINLEY, ROBIN
(1972-1994)
Biology

FISCHER, LAWRENCE
(1961-1992)
English

FLEMING, RONALD
(1963-1966)
Business

FOERSTER, ROBERT
(1969-1989)
Physical Education

FRAME, JAMES
(1965-1991)
Business Mathematics

FRANK, REX C.
(1957-1977)
Business

FRANKLEY, ALLEN G.
(1958-2003)
Engineering Design Technology

FREIFIELD, MAX
(1989-2003)
Speech Communication

FROST, WALLACE E.
(1965-1989)
Counselor

FULTS, JON
(1968-1993)
Business Computer Info Systems

GIANNONE, ANTHONY
(1971-1991)
Welding

GIRTNER, JOSEPH P.
(1968-1998)
Art

GRADISHAR, RUDOLPH L.
(1965-1984)
Business Law

GRAUPMAN, ALVINA
(1957-1986)
Office Occupations

HALL, DONALD
(1959-1979)
Division Chairman, Health, P.E., and Recreation

HALLUM, ANDREW
(1973-1992)
Business/Disabled Student Programs

HARRINGTON, ROBERT
(1966-1979)
Data Processing

HARRIS, WAYNE
(1965-1974)
Physical Education

HART, OSCAR W.
(1959-1977)
Welding

HARTMAN, CLAUDE
(1971-1992)
Physical Science

HASSAN, GLORIA
(1982-1999)
Speech Communication

HENDERSON, SCOTT
(1974-1997)
Music

HENDRICKSON, THOM
(1965-1989)
Political Science/History

HENRY, PAUL L.
(1957-1982)
Machine Tool

HENTELL, DUCIA
(1968-1982)
Nursing Education

HENGSTELER, ELIZABETH
(1956-1977)
Philosophy

HERR, FLORENCE S.
(1973-1986)
Business

HICKEY, X. RAYMOND
(1959-1979)
Electronics

HINRICHSEN, KEITH
(1965-2002)
History

HOAD, GRETCHEN A.
(1987-2002)
Business Paralegal

HOFFLUND, CLYDE
(1957-1982)
Drafting

HOLLAND, ROGER
(1976-1992)
Business Administration

HOLMAN, JEAN LEE
(1962-1974)
Cosmetology

HOLSTEGE, MARTIN
(1962-1989)
Mathematics

HOUSEMAN, PHIL
(1982-2003)
Dean of Student Activities

HUBBELL, SILVIA R.
(1966-1999)
Spanish

HUBRECHT, GLENN
(1975-1991)
Electronics

HUFFMAN, JOAN
(1963-1991)
Biology

HUMISTON, GENEVIEVE
(1957-1960)
Dean of Admissions

HUNTER, FREDERICK
(1973-1988)
Business Education

IDEAL, BONNIE
(1965 – 2002)
Office Occupations

IKEMOTO, MILDRED
(1967-1992)
Instructional Dean/Health Occupations

INCORVAIA, JOSEPH
(1958-1978)
Business

JACKSON, JOHN
(1957-1991)
Automotive Technology

JACKSON, THOMAS
(1980-2002)
Accounting

JAEGER, GEORGE A.
(1965-2003)
English

JANKOWSKI, SHIRLEY
(1975-1990)
College Nurse

JENKINS, SARAH
(1959-1989)
Librarian

JENNINGS, STANLEY
(1957-1985)
History

JEPPESEN, JACK
(1964-1982)
Economics

JOHNSON, CARL
(1958-1976)
Librarian

JOHNSON, WILLIAM
(1971-1991)
Physical Education

JONES, BETTY LOU
(1965-1989)
Librarian

JONES, MARGIA
(1974-1979)
Business Education

JORDAN, ROBERT
(1960-1989)
Sociology

JULIANO, RICHARD
(1965-1991)
Instruction Dean, HPER/Athletics

KAMANSKI, PAUL DAVID
(1959-1989)
Physical Education

KARVELIS, DONALD
(1977-2003)
History

KELDER, JOHN
(1965-1991)
Business Computer Information Systems

KELLY, NANCY J.
(1975-2002)
Health, Physical Education

KENNY, JAMES
(1970-2002)
Computer and Information Systems

KERR, JOSEPH P.
(1963-1966)
Data Processing

KETELLE, WILLIAM
(1975-1992)
Furniture Manufacturing Technology

KINCAID, WALLACE
(1957-1989)
Physical Education

KLEIN, WERNER
(1960-1976)
Dental Assisting

KLEINERMAN, JOSEPH
(1957-1987)
Counselor

KORF, LEE
(1958-1982)
Theatre Arts

KORSMEIER, HENRY F.
(1956-1969)
Assistant Superintendent, Business

LACKMAN, JACK
(1965-1984)
English

LA GUARDIA, PATRICIA
(1973-1998)
Director, Assessment Center

LAHRS, WILLIAM E.
(1965-1983)
Office Occupations

LAIDLAW, RUTH F.
(1964-1986)
Home Economics

LANE, WILMA C.
(1973-1989)
Cosmetology

LANG, JEAN H.
(1972-1989)
Nursing

LANGDON, DEARESTEEN
(1968-1991)
Special Education

LAYTON, DONALD W.
(1962-1989)
Earth Science

LEVI, LINDA
(1969-1998)
Art

LEWIS, WILLIAM
(1962-1989)
Speech Communications

LICARI, JOAN
(1966-2001)
Geology

LITTLETON, OSCAR
(1958-1979)
English

LUCAS, STANLEY
(1976-1991)
Automotive Technology

LUNDGREN, AUSTIN
(1965-1989)
Accounting

MAGNUSON, WALTER C.
(1973-1993)
Vice President of Business Services

MAKI, ROY E.
(1963-1983)
Business

MANIRE, MARGARET V.
(1959-1975)
School Nurse

MANTZ, CONCETTA
(1973-1993)
Sociology

MARKHAM, WENDELL C.
(1965-1980)
Chemistry

MARTIN, LUGENE
(1957-1989)
Director of Counseling

MARTINEZ, ORLANDO
(1991-1999)
Spanish

MARTINEZ, RUBEN
(1966-1991)
Spanish

MASTALER, RUDY
(1976-1987)
Technical Mathematics

MAYS, GLADYS
(1964-1979)
Mathematics

MCDANNEL, KATHLEEN H.
(1962-1982)
Business Education

MCGRATH, RICHARD F.
(1963-1999)
Administration of Justice

MCMAHON, GEORGE VINCENT
(1961-1984)
Technical Mathematics

MEDOFF, JACK I.
(1966-1984)
Metallurgy

MERKLE, MICHAEL L.
(1982-1995)
Physical Education

MERRILL, MARY ALICE
(1962-1981)
Chemistry

MICHAEL, WILFORD
(1973-1986)
President-Superintendent

MILES, LYMAN C.
(1965-1983)
Administrative Assistant
Learning Resources Center

MILLER, ROBERT
(1976-1990)
Administration of Justice

MILLS, MELVIN
(1965-1989)
Biology/Anatomy & Physiology

MONTERA, FRANK J.
(1972-2003)
Physical Education/Athletics

MONTGOMERY, DONALD
(1967-1989)
Counselor

MOSES, SHERILL
(1963-1989)
Philosophy/Political Science

MYERS, ARLENE
(1970-1991)
Business

NEFF, JOHN
(1959-1982)
Anatomy and Physiology

NELSON, C. THOMAS
(1974-1996)
Journalism

NEW, BILL
(1964-1997)
Mathematics

NEWMAN, FRAN
(1972-1992)
Vice President of Student Services

NEVILLE, KENNETH C.
(1965-1986)
English/Spanish

NOGLE, DONALD G.
(1957-1986)
Counselor

NORMAN, DAVID
(1965-1974)
Data Processing

NUTTALL, ANN C.
(1970-1978)
English

ORR, MILDRED
(1971-1983)
Office Occupations

PAIGE, DEAN
(1964-1992)
Instructional Dean, Science/Engineering/Math

PALMER, JOHN
(1956-1976)
Political Science

PASCOE, RAYMOND
(1961-1989)
Mathematics

PELLONI, JR., JOHN
(1989-2000)
Cosmetology

PENDLETON, WILLIAM C.
(1960-1988)
Physical Education

PETER, JAMES R.
(1961-1997)
Chemistry

PINDER, PATRICIA
(1978-1999)
Coordinator of Student Health & Wellness

PLOWMAN, LOIS
(1965-1982)
Business

PORTER, STANLEY
(1964-1991)
Music

POTTER, RAYMOND
(1962-1989)
Counselor

POWERS, LELA
(1969-1991)
Office Skills

POWERS, WILLIS
(1959-1979)
Mathematics

PYKA, ANDREW J.
(1963-1976)
Engineering and Mathematics

REECE, JOHN A.
(1964-1988)
Administration of Justice

REGAN, PATRICIA
(1974-1994)
Medical Assisting

REW, WAYNE
(1970-1999)
Counselor

RINGWALD, SIEGFRIED
(1969-1991)
English/Law

ROBERTS, CECIL
(1971-1979)
Librarian

ROBERTS, EDITH
(1960-1980)
Physical Education

ROBINSON, ELLIS
(1983-2003)
Culinary Arts

ROBINSON, RICHARD B.
(1965-1986)
Associate Dean, Student Activities

RODRIGUEZ, ANTONIO
(1968-1989)
Speech Communication

ROSIER, RUDOLF
(1975-1992)
Baking

SAFERITE, ELWYN
(1957-1981)
General Business and Accounting

SANSON, DORIS
(1961-1979)
Division Chairman, Health Occupations

SAUCEDO, MARCELINO
(1972-1993)
Counselor

SCHAUMBURG, GARY
(1970-2003)
Psychology

SCHUTZ, JOAN
(1957-1979)
Division Chairman, Health, P.E. and Recreation

SCOTT, DICK
(1957-1980)
History

SCOTT, LACRETA
(1984-2002)
English

SCOTT, OLIVE P.
(1959-1986)
Vice President for Instructional Services

SEELEY, GEORGE
(1959-1988)
Physics

SEWELL, DONALD
(1989-2003)
Counselor

SHARPE, DOLLIE
(1979-2001)
Cosmetology

SHAW, FRANK
(1966-1982)
Administration of Justice

SHAWVER, LOUIS REED
(1965-1984)
Industrial Supervision

SHOPFNER, JERRY
(1970-1993)
Autobody

SHOWMAN, FRANK
(1957-1989)
Physics

SHUTT, ROLAND P.
(1963-1972)
Art

SIEGEL, ALLAN B.
(1961-1993)
English

SIEGEL, FRANCES J.
(1962-1966)
History

SIMONEK, HAROLD R.
(1963-2003)
Physical Education/Athletics

SIRIANI, DON V.
(1957-1983)
Dean of Instructional Support

SMITH, RALPH
(1961-1983)
Drafting

SOKOLIK, JOSEPH
(1982-1991)
Technology

SPECHT, CARL H.
(1963-1982)
Administration of Justice

SPENCER, SONORA W.
(1960-1973)
Dental Assisting

STAGNER, EUGENE
(1969-1988)
Automotive Technology

STANLEY, DELMAR
(1961-1991)
Accounting/General Business

STERNER, WANDA
(1959-1992)
Chemistry/Energy

STORKAN, RUSSELL
(1965-2001)
History

STRAUSS, BENJAMIN G.
(1962-1967)
Data Processing

SUMNER, EDWARD M.
(1957-1970)
Electronics

TABOR, RON
(1965-1981)
Speech Communication

TASLITZ, HOWARD
(1964-1992)
History

TAYLOR, ROBERT A.
(1969-1983)
Philosophy/English

THOMPSON, SIDNEY L.
(1964-1984)
Librarian

TILGHMAN, CHARLES
(1965-1991)
Instructional Dean, Fine Arts and Communications

TOLLEFSON, GLENN
(1965-1991)
Numerical Control

TREAT, MARSHALL E.
(1956-1977)
Geology

TUCKER, ROY
(1961-1991)
History/Political Science

TURNBLOM, SELMA
(1987-1998)
Office Technologies

TYNE, JAMES PATRICK
(1963-1997)
Physical Education

VATCHER, OLGA SIEBERT
(1957-1965)
Business Education

VENITSKY, JULIETTE L.
(1957-1984)
Speech Communication

VIGIL, MODESTO
(1972-1993)
Autobody

WAGNER, CHARLOTTE F.
(1968-1978)
Speech Communication

WAGNER, M. EDWARD
(1960-1975)
Dean of Admissions and Records

WALKER, JOAN
(1969-1993)
Cosmetology

WARDEN, WALTER C.
(1957-1972)
Mathematics

WEAVER, EDGAR B.
(1962-1987)
Technology/Drafting

WEBER, NOVA JEAN
(1964-1992)
English

WEGENER, HELEN
(1959-1986)
English

WEIDMAN, MARY LOU
(1964-1993)
Office Occupations

WEIGEL, CAMELIA
(1960-1999)
English

WELCH, GLORYA
(1965-1986)
Chemistry and Mathematics

WENICK, LILLIAN
(1970-1989)
Reading

WENSMAN, MARTIN H.
(1963-1983)
Associate Dean, Business Division

WERNER, NEWTON
(1964-2000)
Chemistry

WESSELL, DOUGLAS
(1968-1991)
Philosophy

WESTERLIN, LEE MOILE
(1976-1991)
Instructional Dean, Business

WHALEN, MARGARET
(1964-1985)
Nursing Education

WHITE, LOUISE
(1960-1980)
Nursing Education

WHITEMAN, RICHARD E.
(1970-1989)
Dean of Business and Industry

WHITLOCK, THOMAS
(1964-1999)
Accounting/Business Law

WHITMAN, CORINE
(1967-1981)
Nursing Education

WILLIAMS, GEORGE R.
(1964-1988)
Architecture

WILKOFF, HUGH
(1962-2003)
Business

WILLIAMS, LEE H.
(1964-1972)
Director of Purchasing

WILSON, LOUIS
(1963-1985)
Mathematics

WILSON, ROY
(1971-2000)
Technical Math

WOLFE, BETTY
(1990-2000)
Reading

WOLFE, FREDERICK C.
(1961-1987)
Counselor

WOOD, MELVIN
(1961-1983)
Art

WOODS, YVONNE
(1991-2003)
Early Childhood Education

WOOLEVER, JAMES D.
(1966-2003)
Computer and Information Sciences

YEE, FRANKLIN
(1976-2003)
Ornamental Horticulture

YSAIS, REY
(1965-2003)
Mathematics

ZIVE, INA
(1972-2002)
Dental Hygiene

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A.A., Cerritos College
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A.A., Kapiolani Community College
B.S., California State University, Long Beach
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COMPUTER SERVICES
ROGER ADAMS
B.M., California State University, Long Beach
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ARLENE BELKNAP
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DOUGLAS DRONEY
B.S., California Polytechnic State University, San Luis Obispo
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B.A., California State University, Fullerton
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M.S., California State University, Fullerton

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DISABLED STUDENT PROGRAMS
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A.A., Cerritos College
GERALDINE GREENE
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M.A., University of Michigan

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A.A., Cerritos College

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SAN BARRY
B.S., California State University, Long Beach
IVY CHIU
AMPARO FERNANDEZ-PEREZ
B.A., California State University, Fullerton
LORI FLINN
B.S., California Polytechnic University, Pomona
YVETTE JUAREZ
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SARAH RAMIREZ
CHRISTINA RODRIGUEZ
MICHELLE RODRIGUEZ
DEBORAH THOMAS
BERNICE WATSON
MICHAEL WISNIEWSKI

A

Absences 27
Academic Honesty 30
Academic Renewal 28
Academic Support Center 38
Accounting Courses
(See Business Accounting) 163
Accounting Major 64
Accounting Occupational Work Experience . . 164
Accreditation 1
Add/Drop Procedures 16
Administration, College 5
Administration of Justice Courses 139
Administration of Justice Major 57
Admission of Minors 10
Admission to Class 16
Admission to the College 10
Adults, Classes For 54
Advanced Placement Exam Credit 29
Advertising 167
Agriculture Major 58
Alpha Gamma Sigma 40
Anatomy & Physiology Courses 140
Announcement of Courses 137
Anthropology Courses 141
Anthropology Major 58
Architectural Technology Major 58
Architecture Courses 142
Architecture Major 58
Architecture Occupational Work Experience . . 142
Art and Design Courses 143
Art and Design Major 59
Assessment Test 13
Associate in Arts Degree, Requirements for . . . 43
Associate in Arts Degree, Petition for 43
Associate in Arts Degree, Unit Requirements . . 45
Associated Students 31
Astronomy Courses 151
Athletics 35
Attendance Regulations 27
Auditing Courses 16
Autobody Courses 152
Autobody Major 62
Automated Manufacturing 221
Automotive Collision Repair (Autobody)
Occupational Work Experience 155
Automotive Mechanical Repair Occupational
Work Experience 159
Automotive Technology Courses 157
Automotive Technology Major 62
Awards 40

B

Bacteriology (See Microbiology) 250
Band (See Music) 254
Basic Skills Course Limitations 27
Bilingual Education Major 63
Biology Courses 162
Biology Major 63
Bio, Medical Instrumentation Courses
(See Electronics) 224
Board of Trustees 5
Bookkeeping (See Accounting) 163
Book Store 36
Botany Courses 163
Botany Major 64
Broadcasting Courses
(See Theatre Arts) 296
Business Administration Major 65
Business Computerized Office
Technologies Courses 177
Business Computerized Office
Technologies Program 70
Business Communications Courses 170
Business - Court Reporting 176
Business Law Courses
(See Business Administration) 167
Business Management Courses
(See Business Administration) 166
Business Management Major 67
Business Marketing Major 69
Business Paralegal 183
Business Supervision Major 69

C

Cafeteria (See Food Services) 37
Calendar (School Year) 3
Calligraphy Courses (See Art) 147
CalWORKs Program 37
CAN Numbers 137
Career Center 37
Career Services Center 37
Ceramics Courses (See Art) 146
Cerritos College Foundation 55
Certificates of Achievement 43
Change of Address 22
Chemistry Courses 190
Chemistry Major 75
Chicano Studies Major 75
Child Development Center 38
Child Development Courses 191
Child Development Major 76
Classification of Students 22
Classified Employees 322
College Level Examination Program (CLEP) . . . 30
College Units 2
Community Education 54
Composites/Plastics Courses 281
Composites/Plastics Major 120
Computer and Information Sciences Courses . . 194
Computer and Information Sciences Major . . . 79
Continuance Attendance 43
Cosmetology Courses 205
Cosmetology Major 83
Costs - Attending College 11
Counseling (Guidance Services) 16
Counseling & Guidance Courses 208
Court Reporting Courses 176
(See Business Court Reporting)
Court Reporting Major 73
Credit by Examination 28
Credit/No Credit Courses 28
Criminal Justice
(See Administration of Justice) 139
Culinary Arts Courses 209
Culinary Arts Major 84

D

Dance
(See Physical Education & Theatre) 274, 295
Dean's List 40
Debate (See Speech) 292
Dental Assisting Courses 210
Dental Assisting Major 85
Dental Hygiene Courses 211
Dental Hygiene Major 86
Directed Studies 214
Disabled Students 35
Dismissal - Class or College 27
Dismissal - Scholastic 27
Drafting Courses
(See Engineering Design Technology) . . 225
Drafting Major
(See Engineering Design Technology) . . . 92
Drama (See Theatre) 295

E

Early Childhood Major 76
Earth Science Courses 214
Economics Courses 215
Economics Major 88
Education/Elementary School Teachers
Courses 215
Educational Technology Major 89
Educational Technology Courses 216
Electronics Courses 220
Electronics Major 91
Electronics, Industrial Technology, Major 91
Emergency Medical Technician Course 235
Employment (See Job Placement) 37
Energy Courses 224
Engineering Courses 224
Engineering Major 92
English As A Second Language 230
English As A Second Language Placement
Exam 14
English Courses 226
English Major 93
Entrance Requirements 13
Equal Opportunity Policy 35
Escrow Courses
(See Business Real Estate) 187
Expenses 11
Extended Opportunities Program
(E.O.P.S.) and Services 42

F

Faculty 304
Fees.. 11
Final Examinations. 26
Finance Courses
(See Business Finance). 182
Financial Aids 41
Food Services Courses
(See Culinary Arts) 209
Foreign Language
(See French, German, Spanish)
Forensics (See Speech). 292
Forestry Major. 94
Foster/Kinship Care Education Programs 38
French Courses 231
French Major 94
Furniture Mfg. Courses
(See Woodworking Mfg. Technologies) . . 299

G

General Education – Graduation
Requirements 45
General Education - State University
Requirements 48
General Information 9-55
Geography Courses. 232
Geography Major 95
Geology Courses 232
Geology Major 95
German Courses 233
German Major 96
Grade Reports 26
Grades Grievance Policy. 33
Grading. 26
Graduation Requirements 43
Graphic Design
(See Art and Design) 148
Guidance Services (See Counseling) 16

H

Health Education Courses 234
Health Occupations Courses 235
Health Services 36
High School Students (Veysey Program). 10
History Courses. 236
History Major 96
History, Cerritos College. 6
Home Economics Major. 97
Honors and Awards. 40
Honors - Graduates. 40
Humanities Courses 239

I

Industrial Arts Courses 239
Industrial Arts Education Major. 97
Industrial Technology Majors 98
Information, Academic. 9
Instructional Materials Fee 11
Instructional Media Services (See LRC) 38
Insurance - Student 36
Intercollegiate Athletics 276
International Students 10
International Studies Program 99

J

Job Placement 37
Journalism Courses 240
Journalism Major 101
Jury Duty 27

L

Law Enforcement
(See Administration of Justice). 139
Learning Communities Program 25
Learning Resource Center (LRC) 38
Legal Assistant Courses
(See Business Paralegal) 183
Legal Studies Major 102
Library Services 38
Library Courses. 242

M

Machine Tool Technology Courses 242
Machine Tool Technology Major. 103
Major Requirements - Graduation 45
Major Requirements - Programs 56
Management Courses
(See Business Administration) 166
Management Major. 67
Manufacturing Technology Major 103
Manufacturing Technology Courses. 243
Marine Biology Courses. 162
Mathematics Courses
(also see Technical Mathematics). 245
Mathematics Major. 104
Medical Assistant Courses. 248
Medical Assistant Major. 104
Merchandising (See Business Marketing). 69
Metallurgy and Material Science Major. 105
Metals (General) Courses 249
Mexican American Studies
(See Chicano Studies). 75
Microbiology Courses 250
Microbiology Major 106
Military Withdrawal 22
Minor (Business Administration) 65
Minor (Business Legal) 73
Minors (Admission). 10
Multimedia
(See Art and Design) 149
Music Courses. 250
Music Major. 107

N

Natural Sciences - General Major. 108
Numerical Control Courses
(See Machine Tool Technology) 242
Numerical Control Major
(See Machine Tool Technology) 103
Nursing - Associate Degree Courses. 257
Nursing - Associate Degree Major 108
Nursing - Transfer Major. 112

O

Office Technologies Courses
(See Business Computerized Office
Technologies). 177
Office Technologies Major 70
Ornamental Horticulture Courses 259
Ornamental Horticulture Major 113

P

Paralegal Courses 183
Pharmacy Technician Courses 262
Pharmacy Technician Major 114
Philosophy Courses 263
Philosophy Major 115
Philosophy of the College. 8
Photography Courses 264
Photography Major. 115
Physical Education Courses. 266
Physical Education Major 116
Physical Science Courses 278
Physical Therapist Assistant Courses. 279
Physical Therapist Assistant Major 118
Physics Courses. 280
Physics Major 119
Physiology & Anatomy Courses 140
Placement Tests. 13
Plastics Manufacturing Technology Courses . . 281
Plastics Manufacturing Major. 120
Police Science
(See Administration of Justice). 139
Political Science Courses 283
Political Science Major. 121
Pre-Chiropractic Major 121
Pre-Dental Major 122
Pre-Medical Major 122
Pre-Optometry Major. 123
Pre-Pharmacy Major 124
Pre-Physical Therapy Major 126
Pre-Veterinary Major 126
Prerequisites, Corequisites and
Recommendations 14
Printmaking Courses (See Art). 145
Probation - Scholastic. 26
Psychology Courses 284
Psychology Major 127

R
Radio (See Broadcasting) 296
Reading Courses 285
Real Estate Courses
(See Business Real Estate) 187
Real Estate Major 74
Recreation Major 128
Re-entry Resource Program 37
Refund Policies & Procedures 11
Registration Information 16
Reinstatement, After Dismissal 27
Repetition of Courses 17
Requirements - Admissions 13
Requirements - Attendance 27
Requirements - Graduation 43
Requirements - Residence 10
Requirements - Scholarship (Financial Aid) . . . 41
Requirements - Scholarship (Academic) 26
Retention Awards Program 15
Robotics 221

S
Scholars' Honors Program 24
Scholarship - Regulations 26
Scholarship and Grants 42
Sculpture Courses (See Art) 147
Secretarial Major 71
Secretarial Science Courses
(See Business Computerized Office Technologies) 177
Security, Industrial
(See Administration of Justice) 139
Sexual Assault & Acquaintance Rape Policy . . . 39
Sexual Harassment 39
Shorthand Courses 178
Sign Language Courses 287
Social Welfare Major 128
Sociology Courses 287
Sociology Major 128
Spanish Courses 288
Spanish Major 129
Special High School Students (Veysey) 10
Special Studies 290
Speech Courses 290
Speech Major 129
Speech Language Pathology Courses 292
Speech Language Pathology Major 130
Speed Reading 286
Sports (See Athletics) 35
State University & Colleges Transfer 47
Statistics Courses
(see MATH 112, PSYC 210)
Stenotype Courses
(See Business Court Reporting) 176
Student Conduct Policy 33
Student Grades or Grades Grievance Policy . . . 33
Student Grievance Policy 32
Student Rights & Responsibilities 31
Students - Associated 31
Students - Financial Aid 41
Students - Health Services 36
Students - Insurance 36
Students - Job Placement 37
Students - Organizations 35
Students - Services 31
Study Load 17
Supermarket Management Courses 168
Supermarket Management Major 68

T
Table of Contents 2
Teacher Credential Preparation 131
Technical Mathematics Courses
(also see Mathematics) 293
Television & Radio Courses 296
Theatre Courses 293
Theatre Major 133
Transcripts - for Admission 10
Transcripts - of Record 26
Transfer Center 38
Transfer to Four Year Institution 47
Tuition (Fees) 11
Typewriting Courses
(See Business Computerized Office Technologies) 177

U
Unit Credit for Military Service 22
University Requirements 48

V
Veterans - Assistance 2
Veysey Program
(See Special High School Students) 10

W
Welding Courses 297
Welding Major 134
Wildlife (Game) Management Major 134
Withdrawals - from Class 26
Withdrawals - from College 26
Women's Studies Courses 299
Women's Studies Major 135
Woodworking Courses 299
Woodworking Mfg. Technologies Major 135
Word Processing Courses
(See Business Computerized Office Technologies) 177
Word Processing Major 71
Work Study 41

Z
Zoology Courses 303
Zoology Major 136

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Interim President/Superintendent

Dr. Adolph Johnson, Jr.
Dean of Academic Affairs

Mr. Chi-Chung Keung
Director of Marketing and Public Relations

Ms. Maria Boyol
Catalog Coordinator

Mr. Kelly Kwan
Designer

Mrs. Margo Winners
Designer

Mr. Gilbert M. Rodriguez
Technical Advisor

Cerritos College Alcohol and Drug Policy

CERRITOS COLLEGE'S POLICY

It is the policy of Cerritos College to implement and maintain the provisions of the Drug-Free Schools and Communities Act amendments of 1989. The college's policy clearly prohibits the unlawful possession, use, or distribution of illicit drug or alcohol by students and employees on campus or as part of any of its activities.

INFORMATION REGARDING LEGAL SANCTIONS UNDER FEDERAL, STATE, AND LOCAL LAWS IS AVAILABLE IN THE FOLLOWING LOCATIONS:

1. Library
2. Human Resources
3. Student Activities Office
4. Assessment Center
5. Health and Wellness Office

ALCOHOL/DRUG ABUSE COUNSELING, TREATMENT, REHABILITATION INFORMATION:

Referral information and Social Service Directories for Los Angeles and Orange Counties are available in the following locations:

1. Counseling Center, ext. 2231
2. Student Health and Wellness Center, ext. 2321
3. Adult Reentry, ext. 2362

HEALTH RISKS

WHAT CAN HAPPEN TO YOUR BODY

DRUG	Initial Use	Chronic Use
ALCOHOL	• Heart beats faster and weaker • Become clumsy and stagger • Get confused and can't concentrate • Feel sick to your stomach, vomit • Mood changes quickly to violence or depression	• Permanent liver, heart, brain damage • Liver cancer • Stomach ulcers • High blood pressure • Alcoholism
COCAINE/CRACK	• Heart beats faster/blood pressure rises • Body temperature rises • Breathe faster • Can't sit still or sleep	• Permanent lung damage • Holes and ulcers inside nose • Personality changes/violent behavior • Fear of people and things (paranoia) • See things that aren't real (hallucinate)
MARIJUANA	• Feel calm, relaxed, sleepy • Heart beats faster • Reaction time slows down • Throat, mouth, and lips get dry • Eyes get bloodshot, eyesight blurs • Lose sense of time	• Heart and lung damage • Lung cancer • Can't remember things • Lower ability to fight off colds and flu • Lower sperm count and movement • Dysmenorrhea
STEROIDS	• Heart beats faster/blood pressure rises • Become more alert • Feel dizzy and shaky • Can't sit still or sleep • Breath smells bad, mouth and lips dry out	• Heart attacks • Liver cancer • Stop growing taller • Impotency • Dysmenorrhea
TOBACCO	• Heart beats faster/blood pressure rises • Feel sick to your stomach • Feel dizzy • Feelings of tension/tiredness • Breath smells bad, teeth stained	• Lung and heart damage • Lung, mouth, and throat cancer • Stomach ulcers • High blood pressure • Sense of taste and smell reduced