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."

CERRITOS COLLEGE

GENERAL CATALOG AND ANNOUNCEMENT OF COURSES ACADEMIC YEAR 2006-2007

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 communities of Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, La Mirada, Norwalk and portions of Bell Gardens, Lakewood, Long Beach, Santa Fe Springs and South Gate.

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
United States Citizenship and Immigration Services under the Department of Homeland Security
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

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.

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2006-2007 ACADEMIC CALENDAR*

FALL SEMESTER 2006

Instruction Begins.....August 14, 2006
Final Examinations..... December 9-15, 2006
Fall Semester Ends ..... December 15, 2006

SPRING SEMESTER 2007

Instruction Begins..... January 8, 2007
Final Examinations..... May 12-18, 2007
Spring Semester Ends..... May 18, 2007
Commencement..... May 12, 2007

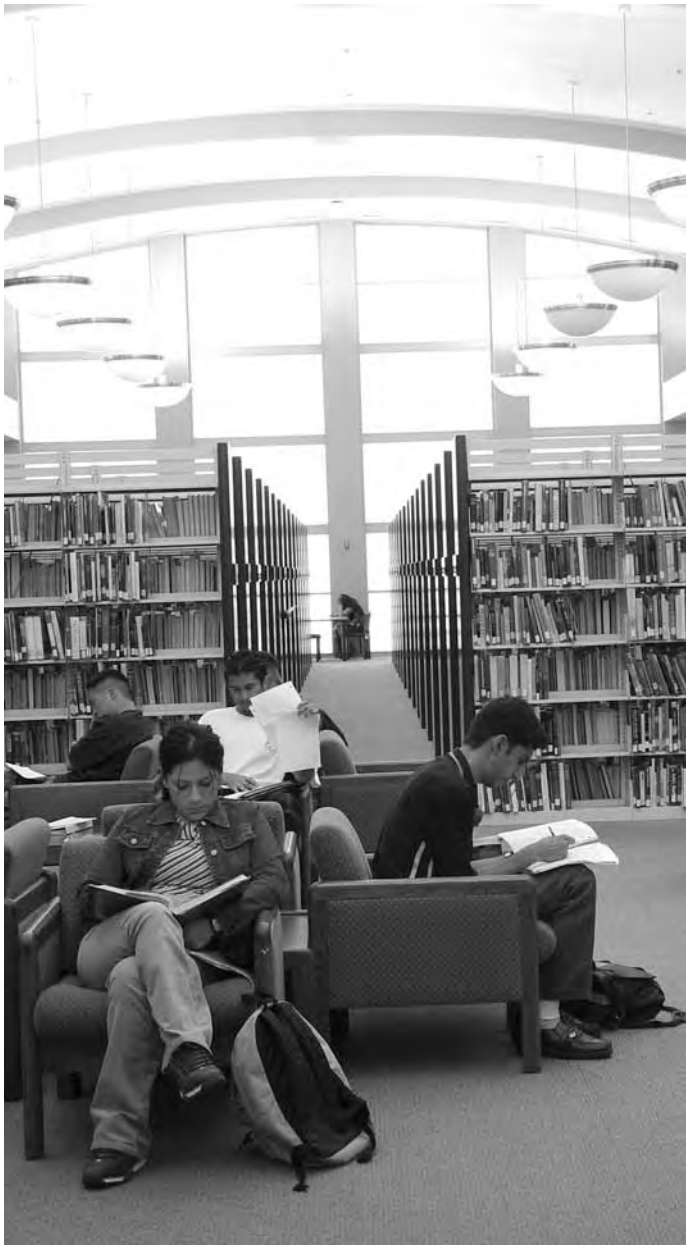
HOLIDAYS (THE COLLEGE WILL BE CLOSED)

Independence Day.....July 4, 2006
Labor Day.....September 4, 2006
Veterans Day Observance..... November 10, 2006
Thanksgiving Holiday..... November 23-26, 2006
Winter Holiday..... December 22, 2006 – January 1, 2007
Dr. Martin Luther King, Jr.'s Birthday Observance ..... January 15, 2007
Abraham Lincoln's Birthday Observance..... February 16, 2007
George Washington's Birthday Observance ..... February 19, 2007
Good Friday .....April 6, 2007
Memorial Day ..... May 28, 2007

RECESS

Semester Break .....December 18, 2006-January 5, 2007
Spring Recess.....April 2-8, 2007

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



ANNUAL SECURITY REPORT

Cerritos College publishes an Annual Security Report in accordance with the Cleary Act. This report includes statistics for the previous three years concerning reported crimes that occurred on-campus; in certain off-campus buildings or property owned or controlled by Cerritos College; and on public property within, or immediately adjacent to and accessible from, the campus. This report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other matters. You can obtain a copy of this report by contacting the Campus Police Department in person or at (562) 860-2451, extension 3202. This report is also available on the Web at www.cerritos.edu/police.

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	2359/2365
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
Drafting (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
Internatinal Students	2232
International Student Counselor	2233
International Student Office	2133/2156
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. Tom Jackson
Secretary . . . . . Mr. Bob Arthur
Member. . . . . Dr. Ted Edmiston
Member. . . . . Mr. Bob Epple
Member. . . . . Dr. Bob Hughlett
Member. . . . . Mrs. Carmen Avalos
Student Member . . . . . Mr. Joe Cobarrubio

ADMINISTRATION

President/Superintendent. . . . . Dr. Noelia Vela
Vice President of Academic Affairs/
Assistant Superintendent. . . . . Mr. William Farmer, Jr.
Vice President of Business Services/
Assistant Superintendent. . . . . Ms. Jo Ann Higdon
Vice President of Student Services/
Assistant Superintendent. . . . . Dr. Stephen B. Johnson
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 Innovation & Academic Support . . . . . Mr. M. L. Bettino
Instructional Dean of Business Education. . . . . Dr. Randy W. Peebles
Instructional Dean/Health Occupations. . . . . Ms. Jenine Nolan
Instructional Dean/Humanities and
Social Sciences . . . . . Ms. Francine DeFrance
Instructional Dean/Fine Arts/Communications . . . . Dr. Connie Mayfield
Interim Instructional Dean/Liberal Arts . . . . . Ms. Linda Rose
Instructional Dean/HPE/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
Director of Research and Planning . . . . . Ms. Caroline Sheldon
Title V Project Director . . . . . Ms. Graciela Vasquez

COMMUNITY EDUCATION

Director of Community Education . . . . . Ms. Laura Franklin
Director of Adult Education/Diversity Programs . . . Ms. Maggie Cordero
Director of Economic Development . . . . . Mr. Jose Anaya

FACILITIES SERVICES

Facilities Manager . . . . . Mr. Thomas Richey
Director of Physical Plant. . . . . Mr. Robert Riffle
Operations Manager . . . . . Arcadio Avila

FISCAL SERVICES

Director of Fiscal Services . . . . . Mrs. Lola Rizkallah
Director of Purchasing . . . . . Ms. Jenney Ho
Accounting Manager. . . . . Mr. Shawn Jones
Budget Manager. . . . . Ms. Ramona Payne
Interim Payroll Manager . . . . . Ms. Deanna Hart

HUMAN RESOURCES

Acting Director of Human Resources. . . . . Mr. Dan O'Rourke
Assistant Director of Human Resources. . . . . Ms. Adriana Flores-Church
Manager of Employment Services/
Faculty & Staff Diversity Officer . . . . . Ms. Cynthia Convey

INFORMATION TECHNOLOGY

Director of Computer Services . . . . . Ms. Lee Krichmar
Manager Information Technology. . . . . Mr. Patrick O'Donnell

PUBLIC AFFAIRS

Director of Marketing/Public Relations . . . . . .
Web Administrator . . . . . Mr. Taylor Bowman

STUDENT SERVICES

Dean of Admissions, Records and Services . . . . . Ms. Stephanie Murguia
Dean of Counseling Services . . . . . .
Director of Career and Assessment Services . . . . . Ms. Theresa Lopez
Chief of Campus Police. . . . . .
Dean of Disabled Student Programs and Services . . . . . .
Dean of Student Support Services. . . . . Dr. Phil Rodriguez
Coordinator of Student Health Services . . . . . Mr. Charles Gale
Coordinator of International Student Services . . . . . Ms. Danita Kurtz
Coordinator of Judicial Affairs. . . . . Mr. Pat Callahan
Coordinator of Student Activities . . . . . Mr. Dean Ackland
Director of Student Activities. . . . . Ms. Holly Bogdanovich
Coordinator of CalWORKs Services . . . . . Ms. Renée Chomiak

FACULTY SENATE

Faculty Senate President. . . . . Mr. Bryan Reece

CERRITOS COLLEGE FACULTY FEDERATION – AFT

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

CALIFORNIA SCHOOL EMPLOYEES ASSOCIATION

CSEA President . . . . . Ms. Debbie Thomas

Original football locker room.

Orignial Falcon Square

New Science Building

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 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.

The 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 oft—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 million dollars. 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 million dollars. The 18 buildings were complemented by a weight-lifting facility in 1971 and a student activities and bookstore complex in 1974.

With the campus thus complete for the time being, the administration and board of trustees turned to building the excellence of the academic programs, which had a strong foundation. Innovation in satellite courses, televised instruction, open entry and 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 million dollars. The early 1970's were marked by spiraling inflation and tighter money, yet the College financed 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 in 1976 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 in1980, 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 Wilford Michael 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. 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 area. 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 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 opened, featuring a computer lab more than 500 high-speed personal computers and 699 data ports. The dual-level computer labs provide students with access to the latest software, high-speed Internet 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.

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 was 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. 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 September 11, 2001, when pursuing cross-cultural educational opportunities became more challenging.

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 participated 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 ground work was set for Cerritos College to launch into the world of tribal technology with the American 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 its 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. 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 American Indian community.

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.

Pursuant to it service in the community, the board of trustees adopted a revised mission statement for the college in January 2005: *The Cerritos College mission is to serve the community by building futures through learning.*

VISION

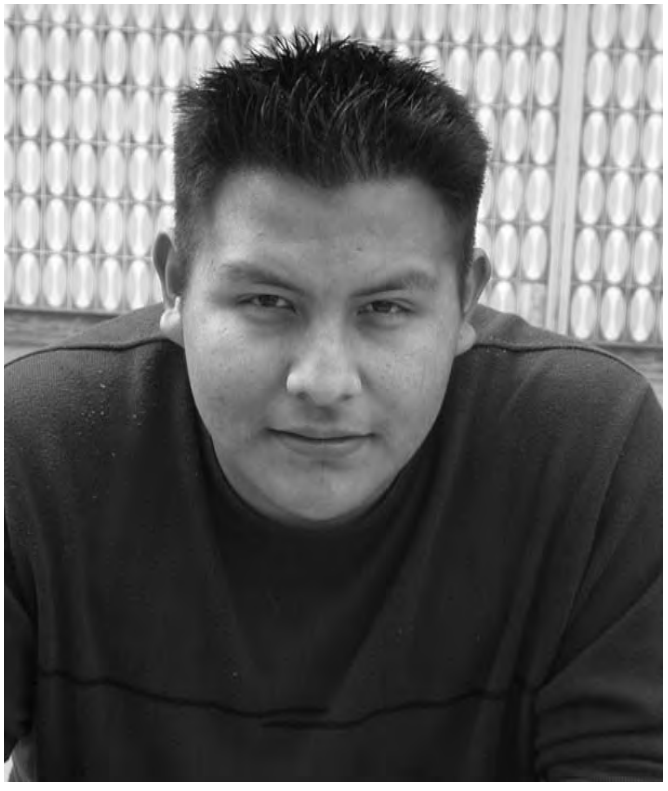
Driven by the pursuit of unparalleled student success, Cerritos College will provide access to innovative learning opportunities that promote the power of learning.

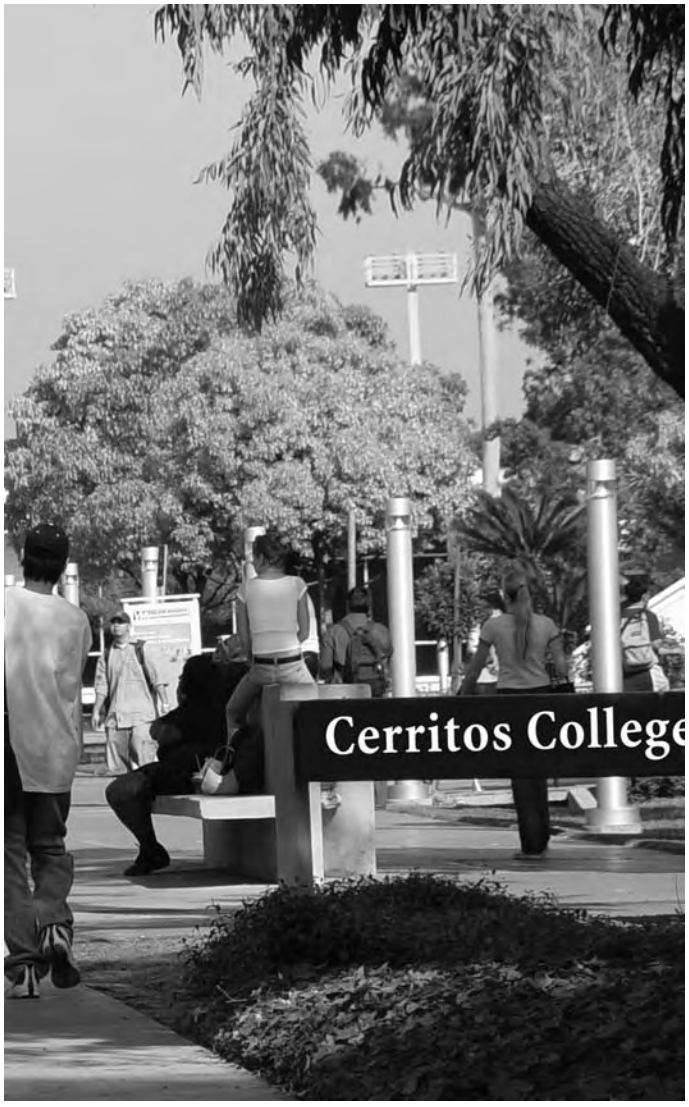
PHILOSOPHY AND OBJECTIVES

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

The Cerritos College Mission is to serve the community by building futures through learning.





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 headstart in their college major or in completing college graduation requirements.
2. Vocational-technical career courses: Students can takecourses not available in a high school or can obtain advanced work beyond the scope of a high school's vocational program.

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 part-time or full-time student in grades kindergarten through 10 (K-10) an advanced student who, in the opinion of the Dean of Counseling Services or designee and designated faculty, may benefit from instruction offered. These students may only take college credit courses which are designated as associate in arts degree applicable. No exceptions will be made.

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.

Minor students applying for admittance must meet the following criteria:

1. Submit an application for admission to Cerritos College.
2. Submit a completed Concurrent Enrollment Approval form each term or semester of attendance.
3. If applying to take academic courses (e.g., math, English, history, biology, etc.), submit an unofficial transcript or most recent report card to the Dean of Counseling Services or designee.
4. Enroll in 11.5 units or fewer.
5. 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 Counseling Services or designee and designated faculty and staff.
6. Be authorized to attend Cerritos College by the Public School District if the student attends public school.
7. Undertake courses of instruction of a scope and duration sufficient to satisfy the requirement of law.

Minor students are not eligible for continuing student enrollment dates but are exempt from per unit fees.

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 United States Citizenship and Immigration Services (USCIS) under the Department of Homeland Security 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 $21,000 USD available to the student or equivalent.)
- TB exam results
- Transcripts (proof of high school graduation)
- TOEFL, S.T.E.P., and/or Cerritos College Placement Test or equivalent
- 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* ($212.00 per unit)..... 7,000
- Books and supplies..... 1,600
- Student Health Fees 28
- College student ID Fee 20
- Health Insurance (mandatory).....600
- Living expenses (Approx.) 11,840
- Parking permit (optional if you have a vehicle).....40
- Approx. total for the year: $21,168

Approx. tuition fees per semester based on 12 units:..... $2,600

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

SEVIS Fee (Form I-901): Once a new initial I-20 is issued, a Form I-901 along with a payment of $100 SEVIS fee must be completed before applying for or a re-validation of the F-1 Visa status. For information on paying the SEVIS fee, go to www.FMJfee.com.

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 $26 per unit. FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE DUE TO STATE LEGISLATION.
2. Students who are non-residents of California will also besubject to non-resident tuition fee of $160 per unit.International student fee is $186 per unit, PAYABLE ATTIME OF REGISTRATION. Active military personnel and their dependents are exempt for one year from this out-of-state tuition charge. Non-resident students who havebeen admitted to a class or classes without payment of thefee 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 $14.00 per semester, $11.00 for Summer Session.
4. College Services I.D. Fee is $10.00 per semester, $4.00 forSummer 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 nocharge.

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. (Title 5 Cal. Admin. Code Sec. 59400)

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.

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 in the Admissions and Records office. 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 inthe 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 therefund. 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 at www.cerritos.edu. Transcripts from other institutions will be required to prove prerequisite eligibility which is strictly enforced at enrollment.

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 workshops include: 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. Online orientation is available on the college website at www.cerritos.edu/counseling.

EXEMPTIONS: Re-admit and transfer students.

ASSESSMENT/PLACEMENT

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

(1) Assessment/Placement Testing
(2) CalWORKs
(3) Career Planning
(4) Student Employment-Job Placement
(5) Transfer Center
(6) Re-entry Program

The Career Services Center is located in the Administration Building.

"ASSESSMENT/PLACEMENT" 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/Placement 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/placement tests prior to enrollment.

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/Placement Testing Schedule

Copies are available at the Admissions and Records Office, Counseling Office, Career Services Center, and the college web site at www.cerritos.edu/career-services; or call (562) 860-2451, Ext. 2355 for dates and times.

Assessment/Placement Test Schedule Exemptions

Students who already possess an A.A. degree or higher are not required to take assessment/placement 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 enrollment.

Individual Assessment Exceptions for Course Placement

English

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

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 enrollment.

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 score 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 enrolling into 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 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	May be repeated one time AFTER one semester waiting period.
ESL/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 students are advised to see a counselor for course approval prior to enrollment. Students who are on academic or progress probation are required to complete a contract with a counselor prior to enrollment. Students who have not declared an educational goal and students who are enrolled in pre-collegiate 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. 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.

Automated prerequisite checking will stop you from enrolling in a class that has a required prerequisite you have not yet met. To avoid denied enrollment, please complete the Cerritos College placement tests or submit transcripts* if prerequisite coursework was completed at another institution. **Transcripts and or grade cards accepted in the Admissions and Records Office.* Complete the Requisite Clearance Request Form available from Counseling, Admissions and Records, or download from www.cerritos.edu/prerequisite.

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 enroll into 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 40L, he/she must take PHAR 60 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".

What is the Prerequisite Challange Procedure for Students?

A prerequisite may be waived by the institution for students who have presented the appropriate reasons and who have the appropriate experience.

If you believe that you meet the requirements, then you may challenge a prerequisite. A Requisite Clearance Request Form can be obtained upon request from the Admissions and Records Office, Counseling Center or download from www.cerritos.edu/prerequisite.

It is the student's responsibility to provide information to support the clearance. The petition must be filed and resolved prior to the student's enrollment 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. The counselor will review the college/university catalog published the year the course was taken.

Once you have completed the Requisite Clearance Request Form, 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 or by mail 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 by completing the Cerritos college Requisite challenge and Waiver Form.

Enrollment 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:
(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 is 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 enrollment. 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. Limited walk-in counseling is also available. General academic counseling is available online 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 who 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. If students are unable to attend the first class meeting, every effort should be made to contact the instructor(s) or the instructor(s) may drop the student as a "no show".

Students seeking admission into a "closed" class must attend the first day of class. Instructors may add students depending on seat availability and students' completion of prerequisites, if applicable.

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 courses is permitted at Cerritos College. An auditor is a student who attends a course or courses for no credit or notation on an official transcript. Auditing may be available, pending instructor's signed permission, for any student who wishes to attend a course 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 **signed** permission.
3. With the instructor's **signed** permission a student may enroll for audit status anytime during the semester **after** the first day of the course. (*The first day of the course refers to the actual first course meeting.)*
4. An auditor may be allowed to elect credit in lieu of audit prior to end of the 5th week of school for a semester length course or prior to 30% of a course for a short-term course, **with instructor written permission.** No refund of audit fees will be available and all credit fees must be paid in full at the time of credit election.
5. A credit student may be allowed to elect audit status in lieu of credit prior to end of the 5th week of school for a semester length course or prior to 30% of a course for a short-term course, **with instructor written permission.** No refund of credit fees will be available after refund deadline and all audit fees must be paid in full at the time of audit election.
6. Credit students have priority over auditing students.
7. The fee to audit a class is $15.00 per unit (in addition to the student fees). Students enrolled in 10 or more units can audit 3 units free (may be 3 one unit classes). The $15.00 per unit audit fee will automatically be charged if the student drops below 10 units.

ADD/DROP PROCEDURES

If you wish to change your class schedule, please follow the steps below:

Complete an Add/Drop card (available in the Admissions and Records Office) or for a faster response, add via **MyCerritos** (http://my.cerritos.edu, *Enrollment*) or **Falcon Phone.**

If the class is closed, you must go to class on the first day and time that it meets; be on time. Respectfully request of the instructor(s) to be added to the class(es); if the instructor approves, an electronic enrollment will be submitted on your behalf to Admissions and Records. Please note that prerequisites and holds (service indicators) will be checked. Payment for each class added is due within 5 days of your request. Please check your student account via **MyCerritos** (http://my.cerritos.edu, *Student Accounts*), **Falcon Phone** or in the **Admissions and Records Office**.
All enrollments must be completed by the listed add deadlines.

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).

To officially withdraw after registration ends, drop the course(s) via "My Cerritos" at www.cerritos.edu or Falcon Phone. Be sure to verify the withdrawal with a printed receipt.

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(ES) 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. A "W" will be posted to the official transcript. See the Dean of Admissions and Records if you need futher information.

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 athletes 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 equivalent 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 workwas 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

The computer system checks for course repetition at the time of enrollment. 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	MAX TIMES
AB 50A	Body Trim and Minor Repairs	1.0	2
AB 50B	Panel Replacement	1.0	2
AB 50C	Structural Repair Set-Up	1.0	2
AB 52	Structural Damage Repair	4.5	2
AB 53	Suspension, Alignment and Power Train Damage	4.5	2
AB 54	Advanced Design Automotive Panel Repair	4.5	2
AB 55	Structural Panel Replacement	4.5	2
AB 57	Structural Automotive Welding	2.0	3
AB 58	Collision Repair Update	4.5	3
AB 59A	Computerized Measuring	1.0	2
AB 59B	Unitized Body Analysis	1.0	2
AB 59C	Full Frame Analysis and Repair	1.0	2
AB 59E	Full Frame Repair – Gauges	1.0	2
AB 60A	Sanding and Paint Preparation	1.0	2
AB 60B	Mixing and Application of Paint	1.0	2
AB 60C	Paint Defects Causes and Cure	1.0	2
AB 61	Preparation and Spot Refinishing	4.5	2
AB 62	Overall and Multi-Coat Refinishing	4.5	2
AB 63	Production Refinishing	4.5	2
AB 65	Mixing and Adjusting Color	2.0	3
AB 66	Lettering, Striping & Design	2.5	2
AB 68	Refinishing Update	4.5	4
AB 73/74	Auto Collision Rep Occ Work Experience	3-4	4
AB 75	Body Panel Modification	4.5	2
AB 76	Partial-Panel Fabrication	4.5	2
AB 77	Full-Panel Fabrication	4.5	2
AB 79	Automotive Fabrication Projects	4.5	2
AB 80	Autobody Customer Service	2.0	4
AB 80A	Vehicle Staging	1.0	2
AB 80B	Damage Analysis and Automotive Systems	1.0	2
AB 80C	Vehicle Types and Customer Relations	1.0	2
AB 83A	Computerized Damage Estimating-ADP	1.5	2
AB 83C	Computerized Damage Estimating-CCC	1.5	2
AB 83M	Computerized Damage Estimating-Mitchell	1.5	2
AB 86	Production Management	2.0	4
AB 88	Estimating and Management Update	3.0	4
AB 181	Non-Structural Damage Estimating	3.0	2
AB 182	Structural Damage Estimating	3.0	2
AB 183	Computerized Damage Estimating	1.5	4
AB 281	Structural Damage Analysis for Estimators	1.0	2
AB 285	Collision Repair Management	3.0	2
AB 287	Advanced Collision Repair Management	2.0	4
AJ 173	Administration of Justice Occupational Work Experience	3.0	4
ANTH 251	Field Trips in Archaeology	3.0	2
ARCH 43/44	Arch Drawing Occ Work Experience	3-4	4
ARCH 123	Intro to 2D Computer Aided Drafting	4.0	2
ARCH 213	Intro to 3D Computer Aided Drafting	4.0	2
ARCH 221	Architectural CAD Working Drawings	4.0	3
ART 50	Chinese Brush Painting	3.0	2
ART 114	Storyboard and Graphic Novel Illustration	3.0	2
ART 115L	Printmaking Lab	1.0	4
ART 117	Intermediate Printmaking	3.0	2
ART 136	Painting for Art Majors	3.0	2
ART 144	Jewelry/Metalsmithing	3.0	2
ART 145	Jewelery Casting & Molds	3.0	2
ART 151	Ceramics-Beginning Wheelthrowing	3.0	2
ART 152	Ceramics-Beginning Handbuilding	3.0	2
ART 153	Ceramics-Intermediate Wheelthrowing	3.0	2
ART 154	Ceramics-Intermediate Handbuilding	3.0	2
ART 155	Beginning Ceramic Sculpture	3.0	2
ART 156L	Ceramics Lab	1.0	4
ART 160	Life Sculpture	3.0	4
ART 163	The Techniques of Sculpture	3.0	2
ART 170A	Beginning Wood Sculpture I	2.0	2
ART 170B	Beginning Wood Sculpture II	2.0	2
ART 171	Occupational Work Experience in Art	1.0	4
ART 180	Calligraphy I	3.0	2
ART 181	Calligraphy II	3.0	2
ART 183	Introduction to Illustration	3.0	2
ART 183A	Commercial Brush Lettering	1.0	2
ART 183B	Copperplate Calligraphy	1.0	2
ART 188	Design for Desktop Publishing	3.0	2
ART 189L	Computer Graphics Lab	1.0	4
ART 190	Animation Principles	3.0	2
ART 191A	3D Computer Animation	3.0	2
ART 191B	3D Computer Animation Project	3.0	2
ART 192B	Advanced Photoshop	3.0	2
ART 194	Multimedia Design	3.0	2
ART 194A	Advanced Final Cut Pro	3.0	2
ART 195	3D Modeling for Animation	3.0	2
ART 196	Web Design with Flash and Dreamweaver	3.0	2
ART 197	Digital Painting	3.0	2
ART 198	Motion Graphics	3.0	2
ART 213	Intermediate Life Drawing	3.0	2
ART 214	Special Studies in Life Drawing	3.0	2
ART 217L	Advanced Screenprinting/ Advanced Etching Lab	1.0	4
ART 218	Screenprinting	3.0	2
ART 219	Advanced Etching	3.0	2
ART 231	Intermediate Painting	3.0	2
ART 232	Portraiture: Drawing/Painting the Head	3.0	2
ART 237	Life Painting	3.0	2
ART 238	Special Studies in Painting	3.0	2
ART 239	Portrait Painting	3.0	2
ART 246	Jewelry Design Fabrication	3.0	2
ART 248	Hollow Forming Jewelry Processes	3.0	2
ART 252	Ceramics Form and Techniques	3.0	2
ART 253	Ceramics Form and Content	3.0	2
ART 255	Intermediate Ceramic Sculpture	3.0	2
ART 264	Sculpture - Stonecarving	3.0	3
ART 287A	Letter Arts	2.0	2
ART 287B	Roman Calligraphy	2.0	3
AUTO 34	Ford Maintenance and Light Repair for Electronic Systems	2.5	2
AUTO 35	Ford Maintenance and Light Repair for Steering & Suspension Systems	2.5	2
AUTO 36	Ford Maintenance and Light Repair for Brake Systems	2.5	2
AUTO 37	Ford Maintenance and Light Repair for Climate Control Systems	2.5	2
AUTO 54	Introduction to Electric Vehicles	4.0	2
AUTO 55	Advanced Technology Electric Vehicles	4.0	3
AUTO 73/74	Auto Mech Rep Occ Work Experience	3-4	4
AUTO 120	Automatic Transmission/Transaxles	5.0	2
AUTO 130	Manual Drivetrain and Axles	5.0	2
AUTO 140	Automotive Steering and Suspension	5.0	2
AUTO 150	Automotive Brakes	5.0	2
AUTO 170	Automotive Air Conditioning	4.0	2
AUTO 180	Electronic Engine Management Systems	5.0	2
AUTO 210	Automotive Machine Shop	5.0	2
AUTO 211	High Performance Engines	5.0	2
AUTO 212	Automotive Specialty	2.0	3
AUTO 280	Diagnostic Engine Performance	4.0	2
AUTO 281	Emission Control Systems-1997 Standards	5.0	2
BA 171	Business Administration Work Experience	1.0	3
BA 172	Business Administration Occ Work Experience	2.0	3

COURSE	DESCRIPTION	UNITS	MAX TIMES
BA 173/174	Business Administration Occ Work Experience	3-4	4
BA 174A	Business Administration Occ. Work Experience Alternate Plan	4.0	4
BCOM 152	Job Search in the Business Field	1.5	2
BCOT 3T	Business communication Word Processing or Keyboarding Tutorial	.5	4
BCOT 5A	Word Module	.5	1
BCOT 5B	Excel Module	.5	1
BCOT 5D	PowerPoint/Internet Module	.5	1
BCOT 63	Keyboarding Speed/Control Building	1.0	3
BCOT 173/174	Business Computerized Office Technologies	3-4	4
BIOL 100	Natural History of So. Calif.	1.0	2
BIOL 180L	Life Science Preparations	1.0	2
BIOL 250L	Special Topics in Biology	1.0	4
BL 171	Business Paralegal Occ Work Experience	1.0	3
BL 172	Business Paralegal Occ Work Experience	2.0	3
BL 173/174	Business Paralegal Occ Work Experience	3-4	4
BUSA 1T	Accounting Microcomputer Tutorial	.5	4
BUSA 2T	Accounting Tutorial	.5	4
BUSA 171	Business Accounting Occupational Work Experience	1.0	3
BUSA 172	Business Accounting Occupational Work Experience	2.0	3
BUSA 173/174	Business Accounting Occ Work Experience	3-4	4
BUSA 231	Current Topics in Payroll	1.5	2
BUSC 2T	Computer-Aided Transcription Lab	.5	4
BUSC 50	Computer-Aided Proofreading	2.0	2
BUSC 119A	Beginning Computer-Aided Transcription	3.0	2
BUSC 119B	Intermediate Computer-Aided Transcription	3.0	3
BUSC 119C	Advanced Computer-Aided Transcription	3.0	3
BUSC 119D	Basic Concepts of Realtime	3.0	3
BUSC 119E	Computer-Aided Medical Dictionary Build	3.0	3
BUSC 119F	Computer-Aided Legal Dictionary Build	3.0	3
BUSC 125	Computerized Shorthand Realtime Practicum I (100-130 wpm)	4.5	2
BUSC 126	Computerized Shorthand Realtime Practicum II (120-150 wpm)	4.5	3
BUSC 127	Computerized Shorthand Realtime Practicum III (140-170wpm)	4.5	3
BUSC 128	Computerized Shorthand Realtime Practicum IV (160-190wpm)	4.5	4
BUSC 129	Computerized Shorthand Realtime Practicum V (180-210 wpm)	5.0	4
BUSC 130	Computerized Shorthand Realtime Practicum VI (190-225wpm)	4.5	4
BUSC 139	Exploring Career Opportunities in Court Reporting	1.0	2
BUSC 141	Computerized Shorthand Theory Review/Skill Development	4.0	2
BUSC 141A	Computerized Shorthand Theory Review/Skill Development A	1.5	3
BUSC 141B	Computerized Shorthand Theory Review/Skill Development B	1.5	3
BUSC 142	Intermediate Computerized Shorthand	4.5	2
BUSC 143	Computerized Shorthand Speed Building I	4.5	2
BUSC 144	Computerized Shorthand Speed Building II	4.5	2
BUSC 145	Computerized Shorthand Speed Building III	4.5	3
BUSC 146	Computerized Shorthand Speed Building (140-170 wpm)	4.5	3
BUSC 147	Computerized Shorthand Speed Building (160-190 wpm)	4.5	4
BUSC 148	Computerized Shorthand Speed Building (180-210 wpm)	4.5	4
BUSC 149	Computerized Shorthand Speed Building (190-225 wpm)	5.0	4
BUSC 152	Introduction to Jury Charge Intermediate Computerized Shorthand	4.5	2
BUSC 153	Multiple-Voice Colloquy I Computerized Shorthand Speed Building I	4.5	2
BUSC 154	Introduction to Congressional Record Computerized Shorthand Speed Building II	4.5	2
BUSC 155	Multiple-Voice Colloquy II Computerized Shorthand Speed Building III	4.5	3
BUSC 156	Jury Voir Dire Procedures Computerized Shorthand Speed Development (140-170 wpm)	4.5	3
BUSC 157	Congressional Testimony Computerized Shorthand Speed Development (160-190 wpm)	4.5	3
BUSC 158	Professional Practices Hearings/ Conferences Computerized Shorthand Speed Development (180-210 wpm)	5.0	3
BUSC 159	In Curia/In Camera Procedures Computerized Shorthand Speed Development (190-225 wpm)	5.0	3
BUSC 173/174	Business Court Reporting/ Computerized Shorthand Occupational Work Experience	3-4	4
BUSC 180	Computerized Shorthand Speed Building (225 wpm)	4.5	4
BUSC 185	CSR/RPR Examination Preparation	1.5	3
BUSC 190	Medical Transciption I/Court Reporting Method	3.0	2
BUSC 191	Medical Transcription II/Court Reporting Method	3.0	2
BUSC 192	Transcription Procedures	2.0	2
BUSC 193	Basic Captioning	4.5	2
BUSR 172	Business Real Estate Occupational Work Experience/Career Internship	2.0	3
BUSR 173/174	Business Real Estate Occ Work Experience/Career Internship	3-4	4
BUSR 174A	Business Real Estate Occ Work Experience Alternate Plan	4.0	4
CA 43/44	Culinary Arts Occ Work Experience	3-4	2
CA 101	Introduction to Food Services, Safety and Sanitation	1.0	4
CDEC 173/174	Early Childhood Education Occ Work Experience	3-4	4
CDIA 73/74	Educational Paraprofessional Occ Work Experience	3-4	2
CDIA 99	Educational Paraprofessional Practicum	3.0	2
CDSE 73/74	Special Ed Asst Occ Work Experience	3-4	4
CG 2	Self Aware-Edu Readiness	2.0	2
CG 6	Family Living for the Disabled Student	1.0	4
CG 50	Orientation and Educational Planning	0.5	2
CG 210	Job Search Strategies	1.0	2
CHEM 250L	Special Topics in Chemistry	1.0	2
CIS 5C	Business Computer Information Systems Database Module	0.5	2
CIS 58A	PC Operating Systems A+ Certification	3.5	3
CIS 58B	PC Core Hardware A+ Certification	3.5	3
CIS 105B	Microsoft Windows Mobile	3.0	2
CIS 168C	Special Topics in Networking	3.0	2
CIS 169A	Special Topics in Security	1.0	2
CIS 169D	Special Topics in Security	3.5	2
CIS 189A	Special Topics in Software Development	1.0	4
CIS 189B	Special Topics in Software Development	2.0	4

COURSE	DESCRIPTION	UNITS	MAX TIMES
CIS 189C	Special Topics in Software Development	3.0	4
CIS 189D	Special Topics in Software Development	3.5	2
CIS 211A	Special Topics in Database	1.0	4
CIS 211B	Special Topics in Database	2.0	4
CIS 211C	Special Topics in Database	3.0	4
CIS 271	Computer and Information Science Occ. Work Experience	1.0	3
CIS 272	Computer and Information Science Occ. Work Experience	2.0	3
CIS 273/274	Computer and Information Science Occ. Work Experience	3-4	4
COS 1	Cosmetology Salon Preparation	1.0	4
COS 53	Advanced Cosmetology Manipulation	6.5	3
COS 63	Advanced Cosmetology Manipulation	4.0	2
COS 70C	Advanced Cosmetology Manipulation	8.0	2
COS 73A	Advanced Cosmetology I	4.0	2
DA 1	Dental Radiation Safety Licensing	1.5	2
98	Directed Studies	1.0	2
99	Directed Studies	2.0	2
298	Directed Studies	1.0	2
299	Directed Studies	2.0	2
EDT 19	Fundamentals of Teleconferencing	1.0	4
EDT 20	Teleconferencing for Small Groups	2.0	2
EDT 21	Teleconference Telematics	1.0	4
EDT 22	Teleconference Review and Evaluation	1.0	4
EDT 23	Teleconference Production	3.0	3
EDT 24	Teleconference Portfolio	3.0	3
EDT 30	Fundamentals of Instructional Multi-media Production	2.0	2
EDT 43	Educational Occupation/ Work Experience	3.0	2
EDT 57	Apple/Claris Works for Educators	1.0	2
EDT 64	HyperStudio Graphics	1.0	4
EDT 65	Advanced HyperStudio Graphics	1.0	4
EDT 67	Inspiration Presentations	1.0	4
EDT 68	Using KidPix	1.0	4
EDT 81	Videos for School Use	2.0	2
EL 37L	Troubleshooting Service and Repair Laboratory	2.0	2
EL 43/44	Electronics Occ Work Experience	3-4	4
EL 50	Electronic Tests and Measurements	1.5	2
EL 53A	Introduction to Microprocessors	3.0	2
EL 53B	Advanced Microprocessors	2.0	3
EL 55	Network Cabling Technology	2.0	3
EL 57	Electronic Project Design and Fabrication	1.5	3
EL 60	Computer Aided Circuit Analysis	1.5	3
EL 114L	Fundamentals of Digital Electronics Lab	1.0	2
ENGL 33	Individualized English	.5	4
ENGL 227	Current Literature	3.0	2
ENGL 240	Creative Writing	3.0	2
ENGL 241	Scriptwriting	3.0	2
ENGT 138	Fundamentals of Computer Aided Design with AutoCAD	4.0	2
ESCI 180	Earth Science Materials/Preparation	1.0	2
ESL 12	ESL Pronunciation	1.5	2
ESL 14	Pronunciation Plus	3.0	2
ESL 22	ESL Oral Communication	1.5	2
ESL 23	ESL Spelling	1.5	2
ESL 33	English for Specific Purposes	1.5	2
ESL 35	Editing for Advanced Grammar and Syntax	1.5	4
GEOL 100	Natural History of So. Calif.	1.0	2
HIST 270	Special Topics in History	3.0	2
HO 7	Cardiopulmonary Resuscitation	0.5	4
HO 9	Emergency Medical Technician I	3.0	2
HO 9L	Emergency Medical Technician I Lab	2.0	2
HO 56	Medication Calculations for Nurses	1.0	2
JOUR 50L	Editorial Board	1.0	4
JOUR 103	Newspaper Article Writing	2.0	4
JOUR 105	Newspaper Production	2.0	4
JOUR 106	Talonmarks.com	1.0	4
JOUR 120	Internet for Journalists	2.0	4
JOUR 160L	College Magazine Production	1.0	4
JOUR 170	Broadcast News	1.0	4
JOUR 171	Work Experience/Journalism	1.0	4
MA 73/74	Medical Assisting Occ Work Experience	3-4	4
MATH 5	Mathematics Learning Strategies	1.0	3
MATH 90A	Training for Tutors of Mathematics I	2.0	2
MATH 90B	Training for Tutors of Mathematics II	2.0	2
MET 52L	Metallurgy Specialty Lab	0.5	2
MET 73/74	Metallurgy Occ Work Experience	3-4	4
MFGT 43/44	Manufacturing Tech Occ Work Experience	3-4	4
MTT1L	Numerical Control Specialty	1.0	4
MTT 2L	Mastercam Laboratory	1.0	4
MTT 3L	Virtual Gibbs	1.0	4
MTT 57	Set up and Operation of CNC Lathes	3.0	2
MUS 112	Elementary Piano I	2.0	2
MUS 113	Elementary Piano II	2.0	2
MUS 114	Intermediate Piano I	2.0	2
MUS 115	Intermediate Piano II	2.0	2
MUS 116	Voice I	2.0	2
MUS 117	Voice II	2.0	2
MUS 118	Voice III	2.0	2
MUS 119	Voice IV	2.0	2
MUS 120	Elementary Guitar I	2.0	2
MUS 121	Elementary Guitar II	2.0	2
MUS 122	Intermediate Guitar I	2.0	2
MUS 123	Intermediate Guitar II	2.0	2
MUS 124	Concert Band	2.5	4
MUS 124A	Beginning Band	2.5	4
MUS 125	Community Symphonic Band	2.5	4
MUS 125A	Community Band	2.5	4
MUS 126	Pep Band	2.5	4
MUS 127	Orchestra	2.5	4
MUS 128	Community Orchestra	2.5	4
MUS 129	Woodwind Ensemble	1.5	4
MUS 130	Brass Ensemble	1.5	4
MUS 131	Percussion Ensemble	1.5	4
MUS 132	Guitar Ensemble	2.5	4
MUS 133	Stage Band	2.5	4
MUS 134	Jazz Ensemble	2.5	4
MUS 136	String Ensemble	1.5	4
MUS 138	Community Chorus	2.5	4
MUS 138A	Collegiate Chorale	2.5	4
MUS 139	Gospel Choir	2.5	4
MUS 140	Pop Choir	2.5	4
MUS 141	Pop/Rock Ensemble	2.5	4
MUS 142	Jazz Improvisation	1.0	4
MUS 143	The Jazz and Popular Singer	3.0	4
MUS 144	Electronic Synthesizer I	2.0	2
MUS 145	Electronic Synthesizer II	1.0	2
MUS 146	Recording Techniques	2.0	4
MUS 147	Basic Applied Music	1.0	4
MUS 148	Private Study/Technique	1.0	2
MUS 149	Private Study/Musical Preparation	1.0	2
MUS 150	Private Study/Performance Practice	1.0	2
MUS 151	Private Study/Preparation	1.0	2
MUS 154	Piano Ensemble	1.5	4
MUS 160	Marching Brass Ensemble	1.5	4
MUS 161	Marching Percussion Ensemble	1.5	4
MUS 162	Marching Pageantry Ensemble	1.5	4

COURSE	DESCRIPTION	UNITS	MAX TIMES
MUS 163	Drum and Bugle Corps	1.5	4
MUS 164	Touring Drum and Bugle Corps	1.5	4
MUS 171	Work Experience/Music	1.0	4
MUS 244	Digital Radio Production	3.0	2
NRSG 25	Clinical Workshop 1	0.5	3
NRSG 26	Clinical Workshop 2	0.5	3
NRSG 213B	Major Drugs and Nursing Management II	1.0	3
PHOT 171	Occupational Work Experience in Photography	1.0	4
PHOT 220	Advanced Color Photography	3.0	2
PHOT 232	Approaches to Studio Lighting	3.0	2
PHOT 252	Photography of the Landscape	3.0	2
PE 120	Sedentary Activities for Students with Disabilities	1.0	4
PE 121	Adapted Cardiovascular Exercise	1.0	4
PE 122	Adapted Strength Training	1.0	4
PE 123	Adapted Swimming	1.0	4
PE 124	Wheelchair Activities	1.0	4
PE 125	Water Safety Instructor (WS)	2.0	4
PE 126	Lifeguard Training	2.0	4
PE 130	Stretching and Relaxation	1.0	4
PE 131	Walking for Fitness	1.0	4
PE 132A	Low Impact Aerobics	1.5	4
PE 132B	Aerobics Activities	1.5	4
PE 133	Step Aerobics	1.5	4
PE 134	Water Aerobics	1.0	4
PE 135A	Circuit Weight Training Beginning	1.0	2
PE 135B	Circuit Weight Training Intermediate/ Advanced	2.0	2
PE 136	Indoor Cycling	1.0	4
PE 137	Song Unit	2.0	4
PE 138	Yoga	1.0	4
PE 139	Pilates Conditioning	1.0	4
PE 141	Fitness and Wellness	3.0	2
PE 142	Fitness for Older Adults	2.0	2
PE 143	Personal Fitness Program	1.0	4
PE 145	Basic Training and Physical Conditioning	1.0	4
PE 146	Weight Management	1.0	4
PE 147	Triathlon Basics	1.0	4
PE 148	Body Sculpting	1.0	4
PE 149A	Beginning Jogging	1.0	2
PE 149B	Intermediate Jogging for Fitness	2.0	2
PE 150A	Swimming, Beginning	1.0	2
PE 150B	Swimming, Intermediate/Advanced	2.0	2
PE 151	Wrestling, Beginning	1.0	4
PE 153A	Backpacking, Beginning	2.0	2
PE 153B	Backpacking, Advanced	2.0	2
PE 154A	Badminton, Beginning	1.0	2
PE 154B	Badminton, Intermediate/Advanced	2.0	2
PE 155A	Bowling Beginning	1.0	2
PE 155B	Bowling Intermediate/Advanced	1.0	2
PE 156A	Golf, Beginning	1.0	2
PE 156B	Golf: Intermediate/Advanced	2.0	2
PE 158A	Racquetball, Beginning	1.0	2
PE 158B	Racquetball, Intermediate/Advanced	2.0	2
PE 159A	Tennis, Beginning	1.0	2
PE 159B	Tennis, Intermediate/Advanced	2.0	2
PE 160	Personal Self Defense	1.0	4
PE 170	Water Polo	2.0	4
PE 171A	Softball	1.0	2
PE 171B	Softball, Intermediate/Advanced	2.0	2
PE 171C	Slow Pitch Softball	1.0	2
PE 172A	Volleyball, Beginning	1.0	2
PE 172B	Volleyball, Intermediate/Advanced	2.0	2
PE 173	Soccer Fitness and Technique	1.0	2
PE 175A	Baseball, Beginning	1.0	2
PE 175B	Baseball, Intermediate/Advanced	2.0	2
PE 176A	Basketball	1.0	2
PE 176B	Basketball, Advanced	2.0	2
PE 177	Flag Football for Women & Men	1.0	4
PE 178	Football, Intermediate/Advanced	2.0	4
PE 179A	Soccer, Beginning	1.0	2
PE 179B	Soccer, Intermediate/Advanced	2.0	2
PE 180	Introduction to Dance Movement	3.0	4
PE 181	Introduction to Dance Cultures of the World	2.0	4
PE 182A	Dance, Modern, Beginning	2.0	2
PE 182B	Dance, Modern, Intermediate	2.0	2
PE 183	Dance Production	2.0	4
PE 184	Choreography	2.0	2
PE 185	Partnering for Dance	2.0	2
PE 186A	Beginning Ballet	2.0	2
PE 186B	Intermediate Ballet	2.0	2
PE 187	Dance Repertory	2.0	4
PE 188	Dance Performance	2.0	4
PE 189	Dance Workshop	2.0	4
PE 193	Introduction to Ballroom Dance	2.0	4
PE 194	Ballet Variations	2.0	4
PE 195	Commercial Dance	2.0	4
PE 196	Latin Social Dance	2.0	4
PE 200	Baseball	3.0	4
PE 201	Baseball Off-Season Conditioning	2.0	4
PE 202	Basketball, Men	3.0	4
PE 204	Basketball, Women	3.0	2
PE 206	Cross Country, Men	3.0	4
PE 207	Cross Country Conditioning	1.0	4
PE 208	Cross Country, Women	3.0	4
PE 210	Football, Men	3.0	4
PE 211	Football Conditioning (Olympic Weights - Power Lifting)	2.0	4
PE 212	Football Training and Techniques	2.0	2
PE 213	Intercollegiate Golf	3.0	4
PE 217	Soccer, Men	3.0	4
PE 219	Soccer, Women	3.0	4
PE 221	Softball, Women	3.0	4
PE 222	Softball Pre-Season Conditioning	1.0	4
PE 223	Swimming	3.0	4
PE 225	Swimming, Women	3.0	4
PE 227	Tennis, Men	3.0	4
PE 228	Tennis Conditioning	1.0	4
PE 229	Tennis, Women	3.0	4
PE 231	Track & Field, Men	3.0	4
PE 233	Track & Field, Women	3.0	4
PE 234	Track & Field Conditioning	1.0	4
PE 235	Volleyball, Women	3.0	4
PE 236	Volleyball Pre-Season Conditioning	1.0	4
PE 238	Wrestling Off Season Training	2.0	4
PE 239	Water Polo –Men	3.0	4
PE 241	Water Polo – Women	3.0	4
PE 243	Wrestling	3.0	4
PE 245	Pep Unit	2.0	4
PE 271A	Occupational Work Experience in Athletic Training	1.0	4
PE 271B	Occupational Work Experience in fitness	1.0	4
PHAR 173/174	Pharmacy Tech Occ Work Experience	3-4	2
PMT 2	Injection Molding Fundamentals	1.5	2
PMT 43/44	Plastics Manufacturing Technology Occupational Work Experience	3-4	4
PMT 59	Injection Molding I	2.5	2
PMT 61	Fiberglass Technology	2.5	2
PMT 63L	Specialty Plastics Lab	.5	4

COURSE	DESCRIPTION	UNITS	MAX TIMES
READ 6	Tutor Training	.5	1
RTV 155	Radio Production	3.0	4
RTV 171	Occupational Work Experience in Theatre	1.0	4
SLP 120L	Phonetics Lab	1.0	3
SPCH 30	Communication Disorders	1.0	4
SPCH 31	Communication Disorders	1.0	4
SPCH 200	Contemporary Communication Topics	3.0	4
SPCH 236	Beginning Forensics Workshop	1.0	4
SPCH 237	Intermediate Forensics Workshop	1.0	4
SPCH 238	Advanced Forensics Workshop	1.0	4
SPCH 239	Forensics Workshop	2.0	4
TH 105	Intro to Musical Theatre Techniques	3.0	4
TH 108	Improvisation for the Theatre	3.5	2
TH 109	Remounting a Production	2.0	4
TH 110	Fundamentals of Acting	3.5	2
TH 115	Stage Movement & Combat	3.0	2
TH 117	Stand-Up Comedy	3.0	2
TH 123	Stage Make-up	3.0	2
TH 130	Rehearsal & Performance for the Minor Role	1.0	4
TH 131	Rehearsal & Performance for the Supporting Role	2.0	4
TH 132	Rehearsal and Performance for the Leading Roles	3.0	4
TH 133	Stage Crew Activity	1.0	4
TH 134	Technical Production	2.0	4
TH 136	Touring Theatre Production for Supporting Roles	2.0	4
TH 137	Touring Theatre Production for Leading Roles	2.0	4
TH 140	Theatre Dance-Beginning Jazz	2.0	2
TH 141	Theatre Dance-Intermediate Jazz	2.0	2
TH 142	Theatre Dance-Beginning Tap	2.0	2
TH 143	Theatre Dance-Intermediate Tap	2.0	4
TH 145	Costume Production for Dance	1.0	4
TH 146	Musical Theatre Production for Chorus	2.0	4
TH 147	Musical Theatre Production for Leading Roles	3.0	4
TH 156	Television Production	2.5	4
TH 160	Great Film Directors	3.0	2
TH 216	Acting for the Camera	3.0	2
TH 221	Costuming for the Stage	3.0	2
TH 241	Screenwriting	3.0	2
WELD 43/44	Welding Occ Work Experience	3-4	4
WELD 51L	Advanced Arc Welding Specialty Lab	1.0	2
WELD 54L	Advanced Pipe Welding	2.0	4
WELD 170	Structural Fabrication	2.0	4
WELD 210L	Arc Welding Applications	2.0	3
WELD 240	Advanced Tungsten Arc Welding Lab	2.0	4
WELD 250L	Gas Tungsten Arc Welding Applications	2.0	2
WMT 43/44	Woodworking Manufacturing Tech Occ Work Experience	3-4	4
WMT 102	Introduction to Solid Wood Casegoods	4.0	2
WMT 103	Introduction to Tables	4.0	2
WMT 107	Wood Finishing	3.0	2
WMT 108	Wood Carving for Furniture	2.5	2
WMT 111L	Introduction to Woodworking Lab	1.0	4
WMT 117	Woodworking and Architectural Environments	2.0	3
WMT 118	Introduction to Woodworking	2.0	2
WMT 119L	Introduction to Woodturning Lab	1.0	4
WMT 130	Furniture Design	3.0	2
WMT 132	Chair Design and Construction	4.0	4
WMT 134	Frame Making	4.0	4
WMT 137	Outdoor Furniture	2.5	4
WMT 144	Jigs and Fixtures	2.0	2
WMT 148	Furniture Making and Manufacturing	4.0	4
WMT 151	Intro to Faceframe Cabinetmaking	4.0	4
WMT 153	32mm System of Cabinetmaking	4.0	2
WMT 154	Intro to Cabinet Installation	3.0	2
WMT 155	Architectural Millwork	4.0	4
WMT 157	Passage Door	4.0	2
WMT 159	Solid Surface Fabrication	4.0	2
WMT 171	Introduction to Wooden Boat Building	3.0	2
WMT 181	Introduction to Computer Operations for Cabinetmaking and Design	3.0	2
WMT 201	Woodworking with Hand Tools	4.0	4
WMT 202	Advanced Solid Wood Cabinetry	4.0	2
WMT 203	Wood Veneering	4.0	2
WMT 211	The Workbench Class	4.0	4
WMT 212	Routers and Router Tables	4.0	4
WMT 218	Polychromatic and Closed Form Turning	3.0	2
WMT 219L	Woodturning Lab	1.0	6
WMT 228L	Production Furniture Making and Manufacturing	2.0	4
WMT 229L	Comprehensive Woodworking Manufacturing Specialty	2.5	4
WMT 233	Morris Chair	4.0	4
WMT 235	Windsor Chair	3.0	2
WMT 244	Chest of Drawers	4.0	2
WMT 246	Rocking Chair	4.0	4
WMT 248	Production Furniture Making and Manufacturing	4.0	3
WMT 249L	Furniture Manufacturing Specialty	2.5	4
WMT 250	Intermediate Faceframe Cabinetmaking	4.0	4
WMT 251	Advanced Cabinetmaking	4.0	4
WMT 252	Intermediate 32MM System Cabinetmaking	4.0	4
WMT 253	Advanced 32MM System of Cabinetmaking	4.0	4
WMT 258	Mantels and Wall Systems	4.0	2
WMT 259L	Solid Surface Manufacturing Specialty Lab	2.5	4
WMT 268A	Production Cabinetmaking (Commercial/Institutional)	5.0	2
WMT 268B	Production Cabinetmaking & Manufacturing (Residential)	5.0	2
WMT 268C	Production Cabinetmaking & Manufacturing (Mass Production)	5.0	2
WMT 269L	Cabinetmaking Manufacturing Specialty	2.5	4
WMT 281	Advanced Computer Operations for Cabinetmaking and Design	2.5	2

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. Failure to do so may result in a delay of enrollment appointment or other important notifications. Address changes may be made online at www.cerritos.edu, "My Cerritos", "My Portfolio."

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 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 progress probation 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 inhigh school (may include summer session priorto 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 HUNG FROM REAR VIEW MIRROR OR PLACED ON DASHBOARD. 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 will be cited. Vehicles must 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 stalls 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	La Sierra University
UC Riverside	Whitman College (WA)
UC Santa Cruz	
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."

The First-Year Experience Program (FYE) is a special part of the Learning Community Program. Students are enrolled in a full semester's work at one time. These courses are designed to provide students with a strong start in college. Students who are interested in this program should call (562) 860-2451, ext 2782 or 2814 for more information.

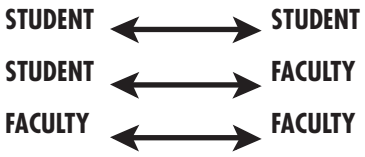
WHAT ARE THE BENEFITS OF JOINING A LEARNING COMMUNITY?

- 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



Are the Learning Communities courses transferable?

Many are transferable to the CSU and UC. See the schedule of classes or college catalog to check on specific courses.

What are the requirements to enroll?

You must enroll in all 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 will Learning Community course be listed on my transcript?

Your transcript will reflect the classes as separate courses.

HOW DO I REGISTER?

Log on to www.cerritos.edu, select MyCerritos, and follow the directions. Important, please not that all learning community courses are designed with a LC suffix. (for example ENGZL 100 LC) To enroll in a learning community, you must enroll in all courses in the learning community before exiting MyCerritos.

FALCON PHONE

Follow the step-by-step instruction in the schedule of classes. Do not forget to enroll in all the courses in the learning community before ending the call or you will not be registered in any learning community course. If you encounter problems registering, try reversing the order in which you enter the class number. If you encounter any other problem, please contact the Learning Communities Program Center immediately for assistance. For more information or assistance about enrolling in the Learning communities Program check the Internet at www.cerritos.edu/lcp or call (562) 860-2451, ext. 2782.

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	Definition Grade	Point
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing, less than satisfactory	1
F	Failing	0
CR	Credit (at least satisfactory, the equivalent of a "C"; units awarded not counted in GPA)	0
NC	No credit (less than satisfactory or failing - units not counted 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.

WITHDRAWAL

Once students are enrolled it is their responsibility to attend class and complete the course requirements. Instructors may withdraw a student who is no longer participating due to excessive unexcused absences in the class. {Title 5, Section 58004 (C) (3)}. **But, the ultimate responsibility to withdraw from a course in which they are no longer participating falls to the student.**

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 authorized in Title 5, Section 55757, other than a "W", "Ws" shall not be used in calculating grade point averages, but excessive "Ws" 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 enrolling into 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 at Cerritos College 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 via MyCerritos at www.cerritos.edu . 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 completed 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 at 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 subsequent semester. Dismissal notices are issued before the start of the Fall Semester. Dismissed students may attend Summer Session to improve academic deficiencies.

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 the stated deadline for Fall registration.

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, anarrangement 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 andstudent, 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 pre-collegiate basic skills courses listed below are allowed:

BCOM 46
ENGL 15, 20, 22, 32
MATH 20, 40, 42
READ 41T, 42, 43, 44, 46

"Basic Skills 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 basic skills 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 workattempted 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 after the semester(s) from which course work is to be alleviated.
3. A student may be granted academic renewal only once.
4. No alleviated course work shall apply toward degree requirements.
5. 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.
6. 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 and via MyCerritos at www.cerritos.edu 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. Non-resident 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.

ELIGIBILITY GOVERNING "CREDIT BY EXAMINATION"

1. The student is currently enrolled at Cerritos College.
2. The student's overall GPA 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 USC.

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 with the Credit/No Credit grading option 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 may be counted toward the A.A. Degree, but will be disregarded in determining grade point average.

Courses with the Credit/No Credit grade option 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 a Credit/No Credit grading option through the Admissions and Records Office. The Credit/No Credit grading option is available only within the first 30% of the course. Students wishing to change Credit/No Credit to a letter grade may do so only within the first 30% of courses. See the Schedule of Classes for details and deadlines.

ELIGIBILITY GOVERNING "CREDIT/NO-CREDIT COURSES"

1. The course must be on an approved list of credit/no-credit courses.
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 petition for Credit/No credit must be submitted within the first 30% of the course.

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 equal 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

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
Art: History of Art	3 semester units	6 c. (1)
Art: Studio	3 semester units	Elective credit only
Biology	4 semester units	6 a. (2)
Chemistry	5 semester units	6 a. (1)
Computer Science A	3 semester units	6 d. (2)
Computer Science AB	3 semester units	6 d. (2)
Economics: Macroeconomics	3 semester units	6 b. (3)
Economics: Microeconomics	3 semester units	6 b. (3)
*English: English Language & Composition	3 semester units	6 d. (1)
*English: English Literature & Composition	6 semester units	6 d. (1) and 6 c. (2)
Environmental Science	3 semester units	6 a. (2)
French: French Language	5 semester units	6 c. (2)
French: French Literature	5 semester units	6 c. (2)
German Language	5 semester units	6 c. (2)
Government and Politics: United States	3 semester units	6 b. (2)
Government and Politics: Comparative	3 semester units	6 b. (3)
History: European History	3 semester units	6 b. (3)
History: United States History	3 semester units	6 b. (1)
Latin: Vergil	3 semester units	6 c. (2)
Latin: Latin Literature	3 semester units	6 c. (2)
**Mathematics: Calculus AB	3 semester units	6 d. (2)
**Mathematics: Calculus BC	3 semester units	6 d. (2)
Music Theory	3 semester units	6 c. (1)
Physics B	5 semester units	6 a. (1)
Physics C (mechanics)	3 semester units	6 a. (1)
Physics C (electricity and magnetism)	3 semester units	6 a. (1)
Psychology	3 semester units	6 b. (3)
Spanish: Spanish Language	5 semester units	6 c. (2)
Spanish: Spanish Literature	5 semester units	6 c. (2)
**Statistics	3 semester units	6 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 (with Essay)	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 Conduc**t 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 insure the maintenance of order pending a hearing within ten school days.
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 504/508 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 regarding discrimination due to a disability with the individual(s) involved or with the Cerritos College Section 504/508 ADA Coordinator. The 504/508 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. 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 Sections 504 and 508 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act.

The primary objective of the Disabled Student Programs is accommodations for disabled students in 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 Sections 504 and 508 should be directed to the Director of Disabled Student Programs and Services.

DISABLED STUDENT PROGRAMS AND SERVICES

Individuals with limitations due to a disability may receive support services and instruction from one or more of six 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 qualified students includes: registration, campus orientation, accommodated placement tests, elevator pass, parking, learning disability eligibility assessment, 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, vision, psychological or other health limitations. The services available include: In-class aides, note taking assistance, 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 primarily serves students who are learning disabled, developmentally delayed and those with acquired brain injuries. Services available include: pre-registration, disability management, textbooks on tape, liaison with instructors and other campus offices, tape recorder and calculator loan, liaison with Regional Center and other agencies. An Independent Mediation Lab providing specialized instruction in approaches to accommodate the limitations of a cognitive disability is also available. The ISC also houses the Assistive Training and Information Center and Alternate Media Production Center for those students in need of alternative text or adapted access to computers. Brailled and large print texts and instruction in screen reader programs such JAWS and voice activation software such as Dragon Dictate are present at this location. Adapted equipment and software is also located throughout the campus

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.

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 patients 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 contact Student Health Services at (562) 860-2451, 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 when using the College Library and Student Health Center.

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 during the first week of each session. Special extended hours will be posted during these periods.

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 up to 50% of the purchase 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. 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. 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 8:30 to 10:00 a.m. for breakfast and 11:00 a.m. to 1:00 p.m. for lunch 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. 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, 8:00 A.M. to 7:00 P.M.; and Friday, 8:00 A.M. to 4:00 P.M. 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, 8:00 A.M. to 7:00 P.M.; and Friday, 8:00 A.M. to 4:00 P.M. 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, 8:00 A.M. to 7:00 P.M.; and Friday, 8:00 A.M. to 4:00 P.M. 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 helping to increase the transfer rate of 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 Career Services in the Administration Building and office hours are 8:30 A.M. to 6:00 P.M., Monday through Thursday, and 8:30 A.M. to 4:00 P.M. 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) **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)**, 2) Foster & Kinship Care Renewal Courses, which give foster parents the opportunity to take topical courses, which are required in order to keep the foster parent license, 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. 2548.

LIBRARY AND LEARNING RESOURCE CENTER

The Cerritos College Library and 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 access to over 100,000 books, 300 magazine and newspaper subscriptions in an open stack arrangement. The online catalog provides access to books, periodicals, journals and web resources. All library materials are carefully selected by classroom faculty and library faculty as integral 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 research guides on topics related to the Cerritos College curriculum are available in print and on the web.

The Library provides typewriters for patron use. Computers available for student use are also available in the library and two computer labs. Printers are also available in the labs.

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 arts services, 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 and closed circuit video systems on the campus.

The Computer Assisted Labs (LC 137) located on the lower level of the LRC, houses several hundred audio and videotapes and other media materials for students use.

All areas of the Library and Learning Resources Center are staffed with qualified personnel eager to help you. The library is open during the regular school year Monday through Thursday, 7:30 a.m. to 10 p.m., Friday, 7:30 a.m. to 3:00 p.m. The Library is also open 9 a.m. to 3 p.m. on Saturday.

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.

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

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.

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.

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

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.

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

SERVICE AND LEADERSHIP 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.

CLUB/ORGANIZATION AWARDS

Club and organizations are recognized and honored for their service and participation in various programs. The Associated Students also recognizes and rewards various activity groups on campus, such as Intercollegiate Athletics, Band, Forensics, *Talon Marks*, Theatre, Choir, Pep Squad, and Honor Society.

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.

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 p.m., Wednesday and Thursday, 10 a.m. – 6:30 p.m., and Friday, from 9:00 a.m. – 12 noon.

Financial aid applications are available year round. The Cerritos College Student Financial Aid Title IV Institutional Code is 001161. Students applying for Federal financial aid must have a high school diploma, GED, or pass the "Ability to Benefit" test.

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 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). If the "lock-in-list" is approved, Financial Aid will only pay for courses on that list. 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 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. Students must also complete 75% of all courses enrolled. All students on financial aid are given a satisfactory academic standards booklet. It is the students' responsibility to read and understand information in the Financial Aid Satisfactory Academic Progress (SAP) Standard booklet.

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

Pell Grant checks are mailed two times a semester to students. Disbursements will take place (approximately) in the fourth and fifteenth 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. Students must contact the Financial Aid Office to initiate their file.

Federal Supplemental Educational Opportunity Grant (FSEOG) is a campus-based program with limited funding. This program is awarded by the school on a "first-come, first-served" basis. Student must have a zero EFC and be enrolled in six units in order to be considered for this grant.

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 a student's award package. 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 must be repaid. Although these loans are made through lending institutions such as a bank, a student 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 the $3,500, a student must have at least 30 units completed and these units MUST appear on the student's official academic transcript at Cerritos College. Loan amounts will be determined at the time the Financial Aid Office certifies a loan application.

Both entrance/exit counseling are requirements of the Federal Family Educational Loan Program (FFELP). Students must maintain at least half-time enrollment status to receive a loan. Once a student receives loan funds, the student must maintain reasonable progress toward a certificate, associate degree, or transfer major.

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 or on the financial aid website. In reviewing a request for any loan, the FAAC may use "professional judgment" to deny a student a 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.

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

BIA grants are not awarded automatically. It is important that a student apply early to meet the deadlines set by the BIA. Students cannot apply through the Financial Aid Office. All BIA applicants must also complete the FAFSA. Students must request the BIA Grant Application from their tribe.

RETURN OF TITLE IV FUNDS

Federal aid recipients who withdraw or are dropped from ALL classes by the instructor are subject to new regulations regarding the Return of Title IV funds. Students who withdraw or are dropped from all classes prior to completing more than 60% of the enrollment period are subject to these rules. Based on the date of the complete withdrawal or drop, the Financial Aid Office will determine the amount, if any, of "unearned" federal financial aid received by the student. The calculation will begin by determining the percentage of the enrollment period completed by the students as follows:

- Number of days completed
- Total number of days in the semester

The result will equal the percentage of the enrollment period completed. The amount of federal financial aid that was paid or could have been paid to the student will be based on this percentage. If the student received more financial aid than the amount earned, the student will be billed for the overpayment. Financial aid recipients should be cautioned to (1) avoid total withdrawal from all classes, (2) successfully complete at least one class during the semester, and (3) repay any "unearned" financial aid as soon as possible to regain eligibility for financial aid.

In cases where a student receives all "F" grades, the student will be billed up to 50% of their aid until the student can provide documentation that the "F" grade was earned.

Any aid recipient who needs to withdraw from all classes should contact the Admissions and Records Office and the Financial Aid Office.

Recipients are encouraged to discuss alternatives to withdrawing from class(es) with their instructor(s) or a counselor before making a final decision.

Title IV funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded.

GRANT OVERAWARDS

There are occasions when students receive financial aid payments based upon misreported information. This results in a grant overaward. Examples of misreported information include inaccurate or omitted income, prior loan defaults or grant overpayments, having a B.A. degree, not having a high school diploma or GED, forged signatures, and unsatisfactory academic progress, just to name a few.

Students who receive grant funds due to misinformation as noted above are required to repay THE ENTIRE SUM RECEIVED.

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 resident, 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) not be in default on any student loan, i) not owe any federal or state grant refund, and, j) not have a bachelor's or professional degree before receiving a Cal Grant (except for extended Cal Grant A or B awards for a teaching credential program).

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 Award requirements state that every graduating high school senior who has at least a 2.0 GPA, meets all the Cal Grant requirements and applies by March 2 within one year of graduating (or receiving their GED) is guaranteed a Cal Grant B Entitlement award. 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.casc.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 graduated from high school in 2000-01 or later 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 standards, complete a FAFSA application, 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. Students wishing to enter the program must attend a Mini-Conference/Orientation and workshops and may be eligible for a grant and/or service.

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

1. Student or parent must currently be receiving Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI) or General Relief. Documentation is required; or
2. Student must meet income standards based on family size. Documentation is required; or
3. Student must have already applied for FAFSA and demonstrated 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 that may or may not require financial need. Applications are available in the Financial Aid Office. For information on scholarships, visit www.cerritos.edu/scholarship.htm.

OFFICE OF VETERANS AFFAIRS

The Office of Veteran 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 is available to provide help with processing applications and to do check inquires to the Veteran 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 the veteran academic counselor.

Please go to the Veterans Affairs website at www.cerritos.edu/admissions/veterans/vet-hours.html to view the service hours. Service hours vary each semester. You may also call (562) 860-2451, extension 2211, for information. The Veterans Affairs Office is located within the Admissions and Records Office area 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.

STATEMENT OF PHILOSOPHY FOR GENERAL EDUCATION COURSE-WORK

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

REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE:

SCHOLARSHIP AND RESIDENCE

A. A student must complete 60 units of degree applicable work with an overall grade point average of "C" or better (2.0) in all courses.
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 schedule of classes. The petition must be approved and validated by a counselor and the Admissions and Records Office before the degree will be granted.
2. Students not in continuous attendance at Cerritos College must meet degree requirements for graduation in effect at the time of readmission.
3. 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.)
4. 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.

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 AA degree has been obtained an additional AA degree maybe obtained 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.

Cerritos College Associate in Arts Degree

Requirements for the Associate in Arts Degree at Cerritos College can be met in one of three different ways: Plan A, B or C.

PLAN A is designed primarily for those students interested in preparing for a vocational career upon graduation. Plan A may also be used by university transfer students and for students in vocational majors who may possibly wish to transfer in the future. However, there are courses listed under Plan A that are not transferable for general education credit to the four-year universities. Therefore, students wishing to use this option should see a Cerritos College counselor for advice in selecting the AA General Education plan that in combination with a major will best match their educational and career goals. Please see the Plan A degree description page for further details.

PLAN B is designed primarily for students who will transfer to a CSU campus and are not interested in attending a University of California campus. Students may use this plan to combine completion of both the Associate in Arts general education requirements, and the California State University (CSU) General Education Certification pattern. Students should see a counselor for advice on selecting the AA General Education plan that in combination with a major will best match their educational and career goals. Please see the Plan B degree description page for further details.

PLAN C is designed primarily for students who intend to transfer to the University of California, or who are undecided between transferring to the University of California or the California State University. Students may use this plan to combine completion of both the AA degree general education requirements and the Intersegmental General Education Transfer Curriculum (IGETC) requirements. Plan C may not be recommended for some majors at certain CSU or UC campuses. Please see the Plan C description page for further details.

The significant differences between Plan A, Plan B and Plan C are:

PLAN A requires the completion of a minimum of 18 units of identified general education courses and requirements and a minimum of 18 units of specified "major" courses, proficiency requirements and electives, if necessary, to total a minimum of 60 degree applicable units.

PLAN B requires a minimum of 39 units of identified CSU general education courses and requirements plus specified lower-division major preparation, the health and wellness proficiency requirement, and elective courses, if necessary, for a minimum of 60 degree applicable units.

If a student only wishes to transfer at an upper division level and is not seeking an A.A. degree, a minimum of 60 CSU transferable units is required. (See transfer requirements for CSU)

PLAN C requires a minimum of 34 (UC) or 37 (CSU) units of identified general education courses and requirements plus specified lower-division major preparation courses, the health and wellness proficiency requirement, and electives, if necessary, to total a minimum of 60 degree applicable units.

If a student only wishes to transfer at an upper division level and is not seeking an A.A. degree, a minimum of 60 UC transferable units is required. (See IGETC and UC transfer requirements.)

There are important differences among the three plans. In order to select the plan that best meets each individual's AA and transfer goals, students should see a Cerritos College counselor.

Associate in Arts Degree
General Education
2006-07
Plan A
Degree and/or Career Option

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, 126, 130, 131, 132A, 132B, 133, 134, 135A, 135B, 136, 137, 138, 139, 141, 142, 143, 145, 146, 148, 149A, 149B, 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, 101,103, or 200, TH 140-143, MUS 160-164, HO 100, 151 or 152, CDEC 161 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: PLAN A 18 UNITS
a. NATURAL SCIENCES: 3 UNITS MINIMUM FROM EITHER PHYSICAL SCIENCE OR BIOLOGICAL SCIENCES

(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, 101L (lab)
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), 150 (lab), 151 (lab), 200 (lab)
Anthropology 115
Biology 105, 110 (lab), 115 (lab), 120 (lab), 200 (lab)
Botany 120 (lab)
Microbiology 200 (lab)
Psychology 241
Zoology 120 (lab)

b. SOCIAL AND BEHAVIORAL SCIENCES: 3 UNITS MINIMUM

Examination Option: The History or Political Science requirement may be satisfied by proficiency examinations. If both exams are passed, the student is still required to select three units from 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.

One course from Section B1 or B2 is required.

(1) History 101, 102, 103
(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. Unit credit is awarded for passing the Advanced Placement exam option with a score of 3 or better. Unit credit is not awarded for passing the department exam and only applies to the AA degree).

(3) Social and Behavioral Sciences
Administration of Justice 101
Anthropology 100, 120, 170, 200, **201, **202, 203, 205
Child Development/Early Childhood **113
Counseling and Guidance **150, 200
Economics 101, 102, 201, 202, 204
Geography 102, 105

History 110, 120, 204, 210, 220, 221, 230, 235, 241,242, 245, 246, 250, 255, 260, 265, **270
Journalism 100
Political Science 110, 210, 220
Psychology 101, 150, 251, 261, 271
Sociology 101, 110, 120, 201, 210, 215, **225, 230, **250
Speech 110
Women's Studies 101, 204, 205, 206

c. FINE ARTS AND HUMANITIES: 3 UNITS MINIMUM FROM EITHER FINE ARTS OR HUMANITIES

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

(1) FINE ARTS
Architecture **110, 112
Art 100, 101, 102, 103, 104, 106, 107, *108, *109, 110, 116, 120, 130A, 144, 150, **186, **192, 193
Humanities: *108, *109
Music 100, 101, 102, 103, 104, 104B, 105
Photography 100, 160
Physical Education 191
Theatre 101, 102, 103, 104, **110, 150, RTV 151/TH 151, RTV 152, TH 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, 245, 246A, 246B, 248A, 248B
French 101,102, 201, 202
German 101, 102, 201, 202
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, **245
Speech 140, **145
Women's Studies 102

d. LANGUAGE AND RATIONALITY: 6 UNITS MINIMUM
Select at least three units from Section D1 and three units from Section D2:

(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, **178
Engineering Design Technology **131
English 101, 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

e. Select an additional course from general education courses from those listed above or a course from Plan B or Plan C so that the earned general education units total at least 18.

* These courses appear in more than one category, but may only be counted once.
** These courses do not meet the General Education Requirements for CSU or IGETC.

NOTE: *The preceding graduation requirements apply to students who were in attendance during the 2006-07 school year and thereafter. Students who enrolled prior to Fall 2006 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.*

Associate in Arts Degree
General Education
2006-07
Plan B
CSU General Education Requirements

Plan B is designed primarily for students who will transfer to a California State University (CSU) campus and are not interested in attending a University of California campus. Students may use this plan to combine completion of both the Associate in Arts general education requirements and the CSU General Education Certification pattern. Students should see a counselor for advice on selecting the AA General Education plan that in combination with a major will best match their educational and career goals.

To earn an Associate in Arts Degree using Plan B, students must complete a minimum of 60 degree applicable units with an overall grade point average of "C" (2.0) or which must include the specified general education requirements and designated courses for a major. The Health and Wellness Proficiency requirement must be completed.

If a student wishes only to transfer and is not seeking an A.A. degree, there are no proficiencies required for CSUGE certification.

It should be noted that completion of the CSU General Education Certification is not required for admission to the CSU nor is it the only way to fulfill the lower division general education requirements. Depending upon the student's major, it may be advantageous to complete the requirements of the specific campus the student plans to attend.

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 take one course from category 1, 2, and 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.
Take a course from category 1, 2 and 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, 101L (lab)
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), 150 (lab), 151 (lab), 200 (lab)
Anthropology 115
Biology 105, 110 (lab), 115 (lab), 120 (lab), 200 (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.
Take one course in category 1 and 2. The third course may be taken in either category

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

1. Fine Arts
Architecture 112
Art 100, 101, 102, 103, 104, 106, 107, *108, *109, 110, 116, 120, 130A, 144, 150, 193
Humanities *108, *109
Music 100, 101, 102, 103, 104, 104B, 105
Photography 100, 160
Physical Education 191
Theatre 101, 102, 103, 104, 150, RTV 151/TH 151, RTV 152, TH 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, 245, 246A, 246B, 248A, 248B
French 101, 102, 201, 202
German 101, 102, 201, 202
History *101, *102, *103, *110, *120, *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.
Take one course in category 1, 2 and 3.
1. American History
History *101, *102, *103
(Any one of these courses meet the requirement in U.S. History)

2. American Government
   Political Science 101, 201
   (Either of these courses meet the requirement for Constitution and American Ideals)
3. Social, Political, Historical and Economic Institutions
   Administration of Justice 101
   Anthropology 100, 120, 170, 203, 205
   Economics 101, 102, 201, 202, 204
   Geography 102, 105
   History *110, *120, 204, *210, *220, *221, *230, *235,*241, *242, *245, *246, *250, *255, *260, *265
   Journalism 100
   Political Science 110, 210, 220
   Psychology 101, 251, 261, 271
   Sociology 101, 201, 210, 215, 230
   Speech 110
   Women's Studies 101, 204, 205, 206

E. Self-Development: 3 units minimum.
   Take one course from the following:
   Counseling and Guidance 200
   Health Education 100, 101
   Physical Education 141
   Psychology 150
   Sociology 110, 120

* These courses appear in more than one category, but may be used only to satisfy one category.

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 affect a student's selection of courses. Students do not have catalog rights to a certification pattern, regardless of their continual attendance status.

CSU Transfer credit is noted in individual catalog course descriptions. A complete list of CSU transferable course offered by Cerritos College can be found on ASSIST website at www.assist.org.

Associate in Arts Degree General Education 2006-07

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

Plan C is designed primarily for students who intend to transfer to the University of California (UC) or are undecided between transferring to the UC or the California State University (CSU). Students may use this plan to combine completion of both the AA Degree general education requirements and the IGETC General Education requirements.

The purpose of IGETC is to provide an option for students to fulfill lower division general education requirements prior to transferring to a UC or CSU campus.

Depending upon the student's major and campus choice, it may be advantageous to complete the requirements of the specific campus the student plans to attend. In general, it is not advisable for transfer students preparing for majors at any UC campus requiring a high number of units, such as engineering and science, to use IGETC.

Plan C can be fulfilled by completing the IGETC requirements specified for either the UC or CSU.

A letter grade of "C" or better is required in all Plan C courses.

To earn an Associate in Arts degree using Plan C, students must complete a minimum of 60 degree applicable units with a grade point average of "C" (2.0) or better which must include the specified general education requirements and designated courses for a major. The Health and Wellness Proficiency requirement must be completed.

If a student wishes only to transfer and is not seeking an A.A. degree, there are no proficiencies required for IGETC certification.

It should be noted that completion of IGETC is not required for admission to the UC or CSU.

Further information and other regulations pertaining to IGETC and the Associate in Arts Degree are found in the catalog.

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
Speech 235

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+

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
Photography 160
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, 245, 246A, 246B, 248A, 248B
French 201, 202
German 102, 201, 202
History *101+, *102+, *103+, *110, *120, *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, 170, 200
Economics 101+, 102, 201, 202
Geography 102, 105
History *101+, *102+, *103+, *110, *120, 204, *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, 204, 206

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/9-12 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, 101L (lab)
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), 150 + (lab), 151 + (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)

* These courses appear in more than one category, but may be used only to satisfy one category.

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 SL 101.
c. Earn a minimum score of 500 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+, 102+, 103+
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 which has credit limitations appears in the college catalog course description. For details, see your counselor.

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. A large number of websites allow students to access such information via the Internet. Many of these links are available at the Transfer Center Website, www.cerritos.edu/transfer. 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.

TRANSFER REQUIREMENTS THE CALIFORNIA STATE UNIVERSITY

Lower Division Transfer Requirements--If you have completed fewer than 60 transferable semester (90 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. NOTE: Not all California State Universities accept lower division transfers. Please go to www.csumentor.edu to find out more.

Upper Division Transfer Requirements—Completion of at least 60 transferable semester (90 quarter) units, 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 in good standing at the last college or university attended. In addition, you must 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).

Test Scores--Freshman and transfer applicants who have fewer than 60 semester or 90 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)	American College Testing Program (ACT)
Registration Unit, Box 592	Registration Unit, P.O. Box 168
Princeton, New Jersey 08541	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.

Starting Fall 2005 CSU applications will only be able to apply online.

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. Cerritos College Level Examination Program (CLEP) credit granted at Cerritos College will not be used to certify general education requirements for transfer. Credits from International Transcripts granted at Cerritos College will not be used to certify general education requirements for transfer.

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

CERTIFICATE 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, 101L (LAB)
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), 150 (LAB), 151 (LAB), 200 (LAB)
Anthropology 115
Biology 105, 110 (LAB), 115 (LAB), 120 (LAB), 200 (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, 193
Humanities *108, *109
Music 100, 101, 102, 103, 104, 104B, 105
Photography 100, 160
Physical Education 191
Theatre 101, 102, 103, 104, 150, RTV 151/TH 151, RTV 152, TH 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, 245, 246A, 246B, 248A, 248B
French 101, 102, 201, 202
German 101, 102, 201, 202
History *101, *102, *103, *110, *120, *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, *102, *103
(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, 170, 203, 205
Economics 101, 102, 201, 202, 204
Geography 102, 105
History *110, *120, 204, *210, *220, *221, *230, *235, *241, *242, *245, *246, *250, *255, *260, *265
Journalism 100
Political Science 110, 210, 220
Psychology 101, 251, 261, 271
Sociology 101, 201, 210, 215, 230
Speech 110
Women's Studies 101, 204, 205, 206

E. **SELF-DEVELOPMENT:** 3 units minimum.
Choose one course from the following:
Counseling and Guidance 200
Health Education 100, 101
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, it may affect a student's selection of courses. Students do not have catalog rights to a certification pattern, regardless of their continual attendance status.

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

CSU Transfer credit is noted in individual catalog course descriptions. A complete list of CSU transferable course offered by Cerritos College can be found on the ASSIST website at www.assist.org.

UNIVERSITY OF CALIFORNIA
TRANSFER REQUIREMENTS

Starting Fall 2005 UC applicants will only be able to apply online.

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 at the Transfer Center located in Career Services.

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.

*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 60 semester units or 90 quarter 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 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 2006-07 school year.

INTERSEGMENTAL GENERAL EDUCATION TRANSFERCURRICULUM

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.

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. IGETC requirements 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
Speech 235

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+

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
Photography 160
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, 245, 246A, 246B, 248A, 248B
French 201, 202
German 102, 201, 202
History *101+, *102+, *103+, *110, *120, *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, 170, 200
Economics 101+, 102, 201, 202
Geography 102, 105
History *101+, *102+, *103+, *110, *120, 204, *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, 204, 206

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/9-12 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, 101L (lab)
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), 150+ (lab), 151+ (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.
c) Earn a minimum score of 500 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+, 102+, 103+
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 which has credit limitations appears in the college catalog course description. See a counselor for details.

Weekend College (Formerly PACE)

Working adults now have the opportunity to fast forward their undergraduate degree with Cerritos Weekend College. With the Weekend College, students can earn a Liberal Arts degree in as few as three years.

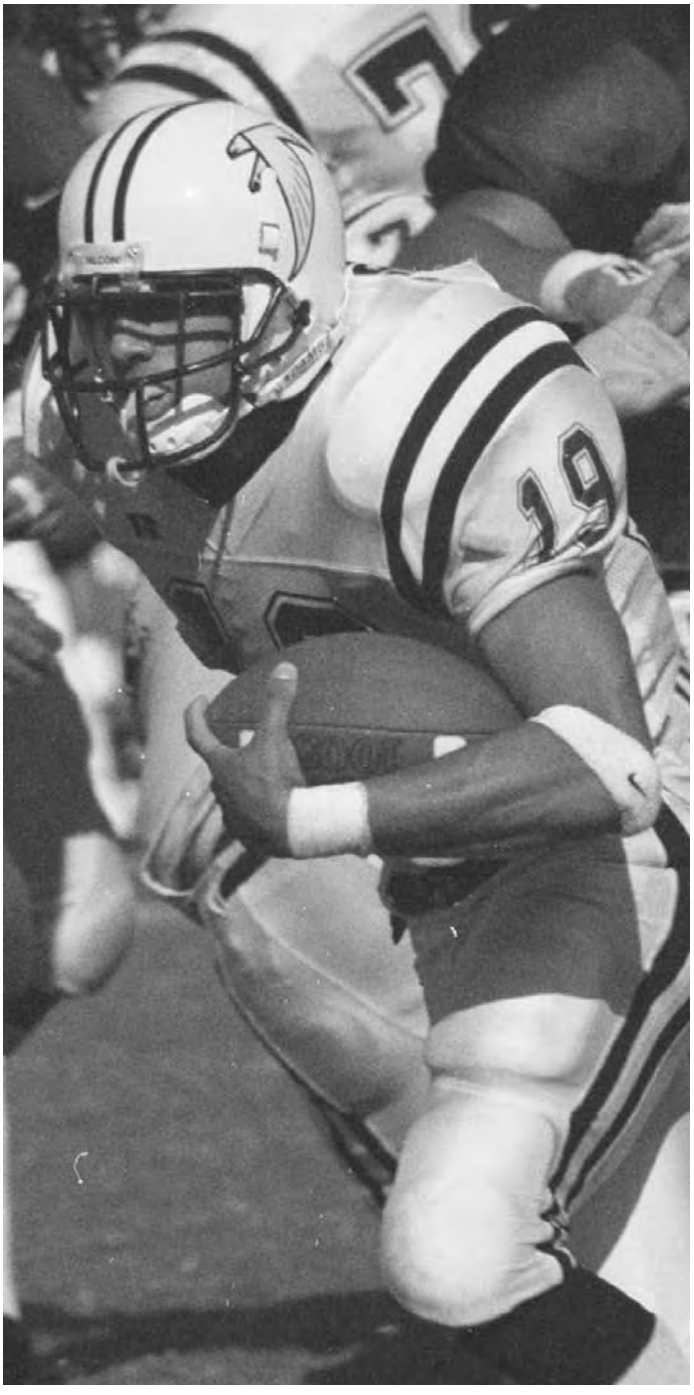
Enrolled in on-campus cohorts, groups of 20 to 25 colleagues work together, support each other and finally, graduate together. The Weekend College cohort structure works to motivate each adult student through the completion of a degree. While the traditional semester lasts for 18 weeks, you can complete most Weekend College classes in nine-week modules.

Weekend College at Cerritos College is the perfect solution for you to start or continue your college education and still maintain a healthy balance between home, work, and school. Weekend College classes offer a dynamic learning environment geared to adult students.

HIGHLIGHTS OF OUR PROGRAM

- Take courses on Friday evenings and all day Saturday only
- Enhance your career skills
- Earn your Associate Degree
- Prepare to transfer in only six semesters and two summer sessions.
- Complete the program in a supportive environment
- Learn to succeed in Online Education
- Envision your personal and professional success
- Make earning your B.A. degree a reality
- Tutoring & Other Support Services available

If you are interested in enrolling in the Weekend College, please contact (562) 860-2451, ext. 2405.



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, extension 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.

(L) Bob Epple, Cerritos College Trustee; (center) Mei Li and Sebrina Valdez, winners of the Cheryl A. Epple Memorial scholarship; (right) Nikki Epple

CURRICULA, REQUIREMENTS FOR MAJORS, CERTIFICATES AND TRANSFER PROGRAMS

CERTIFICATE 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 course 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.

CERTIFICATE OF COMPLETION

Locally approved certificate program may consist of one or more courses totaling 17 units that lead to an occupationally relevant set of skills.

ADMINISTRATION OF JUSTICE 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	Firearm	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	
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 TRANSFER PROGRAM

LOWER DIVISON MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS		UNITS
California State University – Dominguez Hills		
CIS 101	Introduction to Computer Information Systems	3
MATH 115	Finite Mathematics	4

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		
AJ 101	Introduction to Administration of Justice	3
AJ 102	Concepts of Criminal Law	3

The Bachelor of Science in Criminal Justice program is impacted. The CSU designates major programs as impacted when more applications are received in the initial filing period from CSU eligible applicants than can be accommodated by the campus. Impacted majors are authorized to use supplementary admission criteria and/or higher admission standards than the CSU minimum requirements in considering applicants to the program. These criteria are applied equally to continuing CSULB students and entering upper-division transfer students. Please refer to the admissions web site for impaction admission details

http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html

California State University-Los Angeles		
AJ 101	Introduction to Administration of Justice	3
AJ 102	Concepts of Criminal Law	3
and AJ 202	Substantive Law	3
or BL 116	Criminal Law	(3)
AJ 150	Introduction to Corrections	3
ENGL 103	Critical and Argumentative Writing	3

Students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet the graduation requirement at CSULA as the prerequisite for their writing proficiency requirement.

Recommended electives for any of the above universities, for this major are:

AJ 102	Introduction to Administration of Justice	3
AJ 103	Criminal Procedure	3
AJ 104	Criminal Evidence	3
AJ 105	Community Relations	3
AJ 202	Substantive Law	3
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3

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 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR CALIFORNIA STATE UNIVERSITY		UNITS
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 112	Elementary Statistics	4

California State University - Pomona **In addition to the above:**		
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
ORNH 110	Soils	4
ORNH 140	Plant Propagation	3

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

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 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA COMMON LOWER DIVISION PREPARATION		UNITS
ANTH 100	Cultural Anthropology	3
ANTH 115	Physical Anthropology	3
ANTH 120	Introduction to Archeology	3

ADDITIONAL LOWER DIVISION RECOMMENDED COURSES FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Los Angeles

ANTH 100	Cultural Anthropology	3
ANTH 115	Physical Anthropology	3
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

In addition to the common core above, select two Anthropology courses below:

ANTH 200	Native Peoples of North America	3
ANTH 201	Native Peoples of California3	
ANTH 202	The Maya, Inca and Aztecs: Ancient Civilizations of the Americas	3
CIS 101	Introduction to Computer Information Systems	3
MATH 170	Analytic Geometry and Calculus I	4
and PSYCH 210	Elementary Statistics	(4)
or MATH 112	Elementary Statistics	4

University of California – Los Angeles

UCLA 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
PHIL 106	Introduction to Logic	3
PSYC 220	Research Methods	4

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:

ANTH 100	Cultural Anthropology	3
ANTH 115	Physical Anthropology	3
ANTH 120	Introduction to Archaeology	3
ANTH 170	Introduction to Language and Culture	3

Choose from the following any (2) as electives for a total of 18 units:

ANTH 200	Native Peoples of North America	3
ANTH 201	Native Peoples of California	3
ANTH 202	The Maya, Inca & Aztecs: Ancient Civilization of the Americas	3
ANTH 203	The Anthropology of Music, Witchcraft and Religion	3
ANTH 205	The Anthropology of Sexuality and Gender	3
ANTH 250	Introduction to Field Archaeology	3

CAREER OPPORTNITIES: Employment for the person holding an M.A. or 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. may pursue applied careers in research, education, government, cultural research management, business and Social Service. 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 ASSOCIATE IN ARTS DEGREE PROGRAM

REQUIRED COURSES		UNITS
ARCH 110	Introduction to Architecture and Environmental Design	3
ARCH 111	Architectural Drafting and Design I	3
ARCH 112	History of Architecture	3
ARCH 113	Building Codes	4
ARCH 121	Architectural Drafting and Design II	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	4
ART 110	Freehand Drawing	3
TOTAL CERTIFICATE UNITS		34

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 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)
MATH 140	Trigonometry	3

Additional Lower Division Recommended Courses 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 101	General Physic	4
PHYS 102	General Physics	4
or 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
CERTIFICATE 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	Roman Calligraphy	2
ART 183A	Commercial Brush Lettering	1
ART 183B	Copperplate Calligraphy	1
Total certificate requirements		12

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

The Lettering Arts Certificate 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 Certificate of Completion in the Lettering Arts Certificate will be granted upon completion of 12 units.

ART AND DESIGN
ASSOCIATE IN ARTS DEGREE

REQUIRED COURSE (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)

CERAMICS -- Required (6 units)

ART 150	Introduction to Ceramics	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 Sculpture	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

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	3
ART 181	Calligraphy II	3
ART 182B	Lettering and Typography II	3
ART 185	Rendering I	3
ART 285	Rendering II	3
BA 110	Advertising	3
PHOTO 100	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	3.5
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 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 CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
ART101	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 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	Lettering 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
or ART 193	Motion Picture Editing	3

Choose from the following any (2) courses for a total of 6 units:

TH 156	Video Production	3
ART 192	Photoshop/Digital Imaging	3
ART 194	Multimedia Design	3
ART 196	Web Design with Flash and Dreamweaver	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.

DIGITAL LAYOUT FOUNDATION CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
ART 186	Computer Graphics in Art and Design	3
ART 188	Design for Desktop Publishing	3
TOTAL CERTIFICATE OF COMPLETION REQUIREMENTS		6

NOTE: Both courses are transferable but this verification is non-transferable.

The Digital Layout Foundation Certificate of Completion is designed to include the following objectives: a) to explore various text layout design problems b) to develop knowledge of digital typesetting c) to explore various digital illustration techniques d) to gain proficiency in desktop publishing applications e) to help the participant update software skills.

A Certificate of Completion in the Digital Layout Foundation Certificate will be granted by the division upon completion of 6 units.

3D ANIMATION FOUNDATION CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
ART 195	Modeling for Animation	3
ART 191A	3D Computer Animation	3
TOTAL CERTIFICATE OF COMPLETION REQUIREMENTS		6

NOTE: Both courses are transferable but this verification is non-transferable.

The 3D Animation Foundation Certificate of Completion is designed to include the following objectives: a) to develop fundamental 3D Computer modeling skills b) to explore traditional animation principles and apply them to digital animation c) to create original 3D models with Photographic texture maps d) to create animated short films e) to help the participant update software skills.

A Certificate of Completion in the 3D Animation Foundation will be granted by the division upon completion of 6 units.

DIGITAL GRAPHICS FOUNDATION CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
ART 186	Computer Graphics in Art and Design	3
ART 192	Photoshop/Digital Imaging	3
TOTAL CERTIFICATE OF COMPLETION REQUIREMENTS		6

NOTE: Both courses are transferable but this verification is non-transferable.

The 3D Animation Foundation Certificate of Completion is designed to include the following objectives: a) to gain proficiency in vector and bitmap graphic applications b) to develop knowledge of digital photographic manipulation c) to explore various digital illustration techniques d) to develop confidence in digital imaging e) to help the participant update software skills.

A Certificate of Completion in the Digital Graphics Foundation will be granted by the division upon completion of 6 units.

ART AND DESIGN TRANSFER PROGRAM

LOWER DIVISION REQUIREMENTS FOR SPECIFIC CALIFORNIA STATE UNIVERSITIES

California State University – Dominguez Hills

UNITS		
ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
ART 103	Modern and Contemporary Appreciation	3
ART 120	Two - Dimensional Design	3
ART 121	Three - Dimensional Design	3

Available Options*:* Art History, Design, and Studio Art. The above courses are common core requirements only. See a counselor for additional major requirements for specific Art options.

California State University – Fullerton

ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
ART 110*	Freehand Drawing	3
or ART 111*	Intermediate Freehand Drawing	(3)
ART 112	Life Drawing	3
or ART 213	Intermediate Life Drawing	(3)
ART 120*	Two - Dimensional Design	3
ART 121*	Three - Dimensional Design	3
ART 130B*	Fundamentals of Painting	3

**Course must be completed with B or better to receive Bachelors of Fine Arts in Art*

Available Concentrations: 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. The above requirements are core requirements only. See a counselor for additional major requirements for specific concentrations.

California State University – Long Beach

ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
ART 110	Freehand Drawing	3
ART 112**	Life Drawing	3
ART 120	Two - Dimensional Design	3
ART 121	Three - Dimensional Design	3
ART 130A+	Fundamentals of Painting	3
or ART 136	Painting for Art Majors	(3)
ART 150*	Introduction to Ceramics	3

**This course is not required for the Art History, Illustration, Graphic Design and Printmaking options.*

*** This course can be substituted with Art 160 for 3-D media, Art Photography, and Ceramics*

+ This course is not required for the Art Photography class, take ART 186 instead.

Available Options*:* Art History; Art Education (single subject instruction); Art Photography; Ceramics; Drawing and Painting; Illustration; 3-D Fiber Media; Printmaking; Sculpture, Studio Art, Graphic Design, Interior and Industrial design (note: major requirements are different then above. Please see a counselor for more information).

The above requirements are for the art major only. See a counselor for additional major requirements for specific Art options. **The Bachelor of Fine Arts is impacted. Some Art options require a supplemental application and portfolio for admissions. Please see CSULB catalog or an Art counselor**.

California State University – Los Angeles

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

Available Options: Animation (Traditional and Computer Track); Design; Art Education; Art History; Fashion and Textiles; and Studio Arts. The above requirements are Art core courses only. Please see counselor for additional major requirements within the specific art options.

Students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CSULA as their prerequisite for their writing proficiency requirement.

LOWER DIVISION REQUIREMENTS FOR SPECIFIC CAMPUSES OF THE UNIVERSITY OF CALIFORNIA

University of California – Irvine

Two courses from:

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

Choose from the following any (4) courses:

ART 110	Freehand Drawing	3
or ART 111	Intermediate Freehand Drawing	(3)
ART 130A	Fundamentals of Painting	3
or ART 136	Painting for Art Majors	(3)
ART 162	Introduction to Sculpture	3
or ART 163	The Techniques of Sculpture	(3)
ART 155	Beginning Ceramic Sculpture	3
or ART 255	Intermediate Ceramic Sculpture	(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

Choose from the following any (1) courses:

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)

Note: supplemental application, statement of interest and goals, and portfolio (of five slides) are required.

University of California – Riverside

ART 110	Freehand Drawing	3
ART 130A	Fundamentals of Painting	3
or ART 136	Painting for Art Majors	3
PHOT 100	Introductory Photography	3
and PHOT 160	History of Photography	3

Choose from the following any (1) courses:

ART 101	Appreciation and History	3
or ART 102	Appreciation and History	(3)
and 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)

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 CERTIFICATES OF ACHIEVEMENT

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-GENERAL TECHNICIAN

		UNITS
AUTO 100	Maintenance	4
AUTO 110	Engines	5
AUTO 120	Automatic Transmissions/Transaxles	5
AUTO 130	Manual Drivetrain and Axles	4
AUTO 150	Automotive Brakes	5
AUTO 160	Electrical	5
AUTO 260	Advanced Electrical Systems	4
		32

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-ELECTRICAL/DIAGNOSIS TECHNICIAN

		UNITS
AUTO 100	Maintenance	4
AUTO 110	Engines	5
AUTO 160	Electrical	5
AUTO 170	Air Conditioning	4
AUTO 180	Electronic Engine ManagementSystems	5
AUTO 260	Advanced Electrical Systems	4
AUTO 280	Diagnostic Engine Performance	4
AUTO 281	Emission Control	5
		35

AUTOMOTIVE MECHANICAL REPAIR ENGINE/MACHINING TECHNOLOGY

		UNITS
AUTO 100	Maintenance	4
AUTO 110	Engines	5
AUTO 210	Automotive Machine Shop	5
AUTO 211	Advanced Engines	5
AUTO 212	Automotive Specialty	2
		26

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-MANUFACTURE SPECIALTY

		UNITS
AUTO 73	Work Experience	15
AUTO 111	Engines	4
AUTO 121	Drivetrain Transmissions and Axles	6
AUTO 151	Brake & Alignment	6
AUTO 161	Electrical	7
AUTO 179	Automotive Air Conditioning	4
AUTO 181	Electronic Engine Management Systems – Corporate	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 requirements 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.

BIOLOGY 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

BOT 120	Introduction to Plant Science	4
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 112	Elementary Statistics	4
MICRO 200	Principles & Applications of Microbiology	5

Required general education courses: ENGL 102 or ENGL 103, MATH 116. HED 100 or PSYC 101 or PSYC 241, HIST 202, POL 101. See counselor for other options.

California State University – Dominguez Hills

MATH 112	Elementary Statistics (Required for B.A. degree and B.S. degree)	4
MATH 170*	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological, and Social Sciences	(4)

*(Required for B.S. degree only)

California State University – Fullerton

BIOL 202	Molecular Biology/Genetics	4
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
or MATH 116	Calculus for Managerial, Biological, and Social Sciences	(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

OPTION IN BIOLOGY EDUCATION

ASTR 101	Elementary Astronomy	3
GEOL 101	The Earth Environment	4
ESCI 104	Oceanography	3
MICR 200	Principles & Application of Microbiology	5

OPTION IN CELL & MOLECULAR BIOLOGY

MICR 200	Principles & Application of Microbiology	5

OPTION IN ECOLOGY

GEOL 101	The Earth Environment	4

OPTION IN ZOOLOGY

GEOL 101	The Earth Environment	4
or MICR 200	Principles & Applications of Microbiology	(5)

California State University – Los Angeles

CHEM 205	Quantitative Analysis Chemistry	4
MATH 116	Calculus for Managerial, Biological, and Social Sciences	4
MATH 170	Analytic Geometry and Calculus I	4

Required university general education course: ENGL 103 Critical and Argumentative Writing.

CSULA students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CSULA as the prerequisite for their writing proficiency requirement.

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

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)
and MATH 112	Elementary Statistics	(4)
or PSYC 210	Elementary Statistics	(4)
PHYS 203*	Engineering Physics	4

*(PHYS 203 may substitute for PHYS 202)

In completing general education requirements, students must include two courses from the Humanities category chosen from English literature, history, humanities, or philosophy (excluding logic).

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

(Biology B.A., B.S., and Biological Sciences B.S. are offered)

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

The Biological Sciences major differs from the Biology Major in the structure of the upper division course work. In the Biological Sciences major, students choose one of nine upper division tracks of specialized coursework. Those tracks are: Biology; Cell/Molecular and Developmental Biology; Conservation Biology; Entomology; Environmental Toxicology; Evolution and Ecology; Microbiology; Plant Biology; and Medical Biology.

For the Biology Track take 2 from: CIS 180 or CIS 280 or CIS 292 or CIS 230

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 secondary level, and are appropriate for some applied work in laboratories, federal employment, state civil service and the pharmaceutical industry.

BOTANY TRANSFER PROGRAM

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

California State University – Long Beach (Option within the Biology Major)

BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 116	Calculus for Managerial, Biological and Social Sciences	4
or MATH 170	Analytical Geometry and Calculus I	4
or MATH 190	Analytical 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 110	Elementary Chemistry	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 116	Calculus for Managerial, Biological and Social Sciences	4
MATH 112	Elementary Statistics	4

PHYS 101	General Physics	4
PHYS 102	General Physics	4

Required general education course: ENGL 102 or ENGL 103, HED 100 or PSYC 101 or PSYC 241, HIST 103, POL 101. See counselor for other options.

University of California – Riverside

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
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	3.5
BUSA 133	Computerized Spreadsheet Accounting	3.5
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 125	Personal Finance	3
or BUSA 60	QuickBooks Accounting	(2)
and BUSA 61	Turbo Tax Accounting	(2)
BUSF 51	Retirement Planning and Investing	1.5
TOTAL CERTIFICATE REQUIREMENTS:		34.5

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
BL 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
CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
Complete the Accounting Certificate 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 CERTIFICATE 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:

BL 112	Business Law	3

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
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	3.5
BUSA 133	Computerized Spreadsheet Accounting	3.5
BUSF 125	Personal Finance	3
or BUSA 60	QuickBooks Accounting	(2)
and BUSA 61	Turbo Tax Accounting	(2)
BUSF 51	Retirement Planning and Investing	1.5
CIS 102	Introduction to Microcomputer Hardware & Applications Software	3
TOTAL CERTIFICATE REQUIREMENTS:		21.5

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
BL 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

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 – PAYROLL ADMINISTRATION CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BUSA 60	Quickbooks Accounting	2
BUSA 100	Introduction to Accounting	3
BUSA 130	Payroll Tax Accounting	3
BUSA 133	Computerized Spreadsheet Accounting	3.5
BUSA 230	Advanced Payroll Accounting	3
or BUSA 250	Income Tax Accounting	(3)
BUSA 231	Current Topics in Payroll	1.5
BL 105	Intro to Federal and California Employment, Labor, and Workers' Compensation Law	3
BA 106	Human Resources Development	3
TOTAL CERTIFICATE REQUIREMENTS:		22

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

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

OTHER RECOMMENDED COURSES:

BUSA 101	Fundamentals of Accounting I	4
BUSA 131	Computerized Accounting –IBM	3.5
BA 117	Introduction to Supervision	3
BCOM 46	Business Communications	3
BCOT 114	Introduction to Microsoft Office	3.5
or CIS 102	Introduction to Microcomputer Hardware and Applications Software	3

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 CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
Complete Microcomputer Accounting Clerk CERTIFICATE REQUIREMENTS: 22 units		
Plus choose from the following any (3) courses:		
BUSA 130	Payroll Tax Accounting	3
BUSA 250	Income Tax Accounting	3
BL 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
BL 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

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 Legal
   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.

CAREER OPPORTUNITIES: Prepares the student for a variety of career opportunities in business, industry, government, and self-employment.

See Cerritos College Graduation Requirements.

BUSINESS ADMINISTRATION CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BA 100	Fundamentals of Business	3
BL 111	Business Law	3
or BA 113	Legal Environment of Business	(3)
BA 114	Marketing	3
or ECON 201	Principles of Macroeconomics	(3)
BA 115	Management Business	3
BA 120	Management – Accounting and Internal Control	3
or BUSA 100	Introduction to Accounting	(3)
BA 132	Computer Applications for Managers	3
or CIS 101	Introduction to Computer Information Systems	(3)
TOTAL CERTIFICATE REQUIREMENTS:		18

RECOMMENDED COURSES:

BA 101	International Business	3
BA 104	Managing Cultural Diversity	3
BA 106	Human resource Management	3
BA 107	Human Relations in Business	3
BA 156	Motivational Presentation Skills for Management	3
BA 171-174	Business Administration Work Experience	1-4
BL 101	Introduction to Law	3
BUSR 101	Real Estate Principles	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Plan A (Degree and/or Career Option): Meet the requirements for a Certificate of Achievement in Business Administration (18 units). Take 12 units of the Recommended Courses. Complete 18 units of identified general education courses (see Plan A Degree and/or Career Option), proficiency requirements and electives, if necessary, to total a minimum of 60 degree applicable units.

PLAN B (CSU General Education Requirements): Meet the requirements for a Certificate of Achievement in Business Administration (18 units). Complete a minimum of 39 units of identified CSU general education courses (see Plan B CSU General Education Requirements), the health and wellness proficiency requirement, and elective courses, if necessary, for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer institutions as listed.

PLAN C (Intersegmental General Education Transfer Curriculum – IGETC – For Transfer to UC and CSU): Meet the requirements for a Certificate of Achievement in Business Administration (18 units). Complete a minimum of 35 (UC) or 38 (CSU) units of identified general education courses (see Plan C – IGETC General Education Requirements), the health and wellness proficiency requirement, and elective courses, if necessary, for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer institutions as listed.

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

CAREER OPPORUNITIES: 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.

INTERNATIONAL BUSINESS CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BA 52	Fundamentals of Importing and Exporting	3
or BA 155	Introduction to Global Logistics	(3)
BA 101	International Business	3
BA 102	International Business Law	3
or BA 113	Legal Environment of Business	(3)
BA 104	Managing Cultural Diversity	3
or BA 107	Human Relations in Business	(3)
BA 114	Marketing	3
BA 120	Management – Accounting and Internal Control	3
or BUSA 100	Introduction to Accounting	(3)
ECON 101	U.S. & Global Economy	3
or ECON 201	Principles of Macroeconomics	(3)
TOTAL CERTIFICATE REQUIREMNT		21

RECOMMENDED COURSES:

ANTH 100	Cultural Anthropology	3
BA 106	Human Resource Management	3
BL 111	Business Law	3
BA 132	Computer Applications for Managers	3
BA 156	Motivational Presentation Skills for Managers	3
BA 171-174	Business Administration Work Experience	1-4
BL 101	Introduction to Law	3
GEOG 105	World Regional Geography	3
PHIL 200	World Religions	3
POL 210	International Relations	3

A Conversational Language or a Traditional Language 100 level

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in International Business. Take 12 units of the Recommended Courses. Complete general education requirements and electives to achieve a minimum of 60 units. If you already have an AA, BA, or Master's Degree from a regionally accredited college and meet the Cerritos College General Education requirements, complete the Certificate Requirements to earn an A.A. in International Business.

NOTE: **A**lthough 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 global business, industry, government, and self-employment.

Please see Business Counselors or the respective department for additional alternatives.

RETAIL MANAGEMENT CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BA 50	Business Math (or equivalent)	3
BA 106	Human Resource Management	3
BA 107	Human Relations in Business	3
BA 114	Marketing	3
BA 115	Management-Business	3
BA 120	Management-Accounting and Internal Control	3
or BUSA 100	Introduction to Accounting	(3)
BA 123	Management – Retailing	3
or BA 117	Fundamentals of Supervision	(3)
BA 132	Computer Applications for Managers	3
or BCOT 114	Introduction to Microsoft Office	(3)
BA 156	Motivational Presentation Skills for Managers	3
or BCOM 148	Effective Business Presentation	(3)
BCOM 46	Business Communications	3
or BCOM 147	Business Communications	3
TOTAL CERTIFICATE REQUIREMENTS:		30

RECOMMENDED COURSES:

BA 104	Managing Cultural Diversity	3
BA 110	Advertising	3
BL 111	Business Law	3
BA 113	Legal Environment of Business	3
BA 153	Small Business Management	3
BL 101	Introduction to Law	3
BUSR 101	Real Estate Principles	3
BA 171-174	Business Administration Work Experience	1-4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

PLAN A (Degree and/or Career Option): Meet the requirements for a Certificate or Achievement in Retail Management (30 units). Take 12 units of the Recommended Courses. Complete 18 units of identified general education courses (see Plan A Degree and/or Career Option), proficiency requirements and electives, if necessary to total a minimum of 60 degree applicable units.

PLAN B (CSU General Education Requirement): Meet the requirements for the Certificate of Achievement in Retail Management (30 units). Complete a minimum of 39 units of identified CSU general education courses (see Plan B CSU General Education Requirements), the health and wellness proficiency requirements and elective courses, if necessary for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer institution as listed.

PLAN C (Intersegmental General Education Transfer Curriculum – IGETC – For Transfer to UC and CSU): Meet the requirements for a certificate of Achievement in retail Management (18 units). Complete a minimum of 35 (UC) or 38 (CSU) units of identified general education courses (see Plan C – IGETC General Education Requirements), the health and wellness proficiency requirements, and elective courses, if necessary, for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer instituation as listed.

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 ADMINISTRATION TRANSFER PROGRAM

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS — **UNITS**

California State University - Dominguez Hills

BL 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

BL 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

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

BL 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 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.

* Recommended, not required.

International Business majors need four semesters of a foreign language.

California State Polytechnic University – Pomona

BL 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 102	Introduction to Microcomputer Hardware and Application Software	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
or MATH 170	Analytical Geometry and Calculus I	(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, BL 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 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
BL 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 Manager	3
or BA 156	Motivational Presentation Skills for Managers	(3)
TOTAL CERTIFICATE REQUIRMENTS:		18

RECOMMENDED COURSES

BA 104	Managing Cultural Diversity	3
BA 106	Human Resource Management	3
BA 113	Legal Environment of Business	3
BA 120	Management – Accounting and Internal Control	3
BA 171-174	Business Administration Work Experience	1-4
BL 101	Introduction to Law	3
BUSR 101	Real Estate Principles	3

NATIONAL MANAGEMENT ASSOCIATION'S (NMA) COURSES SUPERVISORY & MANAGEMENT SKILLS

BA 65	NMA Role of the Supervisor	1
BA 66	NMA Management Principles	1
BA 67	NMA Communication Skills	1
BA 68	NMA Interpersonal Relationship Skills	1
BA 69	NMA Developing Performance	1
BA 75	NMA New Employee	1
BA 76	NMA Coaching and Counseling	1
BA 77	NMA Leadership Development	1
BA 78	NMA Business Concepts	1
BA 79	NMA Law for the Supervisor	1

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

PLAN A (Degree and/or Career Option): Meet the requirements for a Certificate of Achievement in Business Marketing (18 units). Take 12 units of the recommended Courses. Complete 18 units of identified general education courses (see Plan A Degree and/or Career Option), proficiency requirements and electives, if necessary, to total a minimum of 60 degree applicable units.

PLAN B (CSU General Education Requirements): Meet the requirements for a Certificate of Achievement in Business Marketing (18 units). Complete a minimum of 39 units of identified CSU general education courses (see Plan B CSU General Education Requirements), the health and wellness proficiency requirement, and elective courses, if necessary, for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer institutions as listed.

PLAN C (Intersegmental General Education Transfer Curriculum – IGETC – For Transfer to UC and CSU): Meet the requirements for a Certificate of Achievement in Business Marketing (18 units). Complete a minimum of 35 (UC) or 38 (CSU) units of identified general education courses (see Plan C – IGETC General Education Requirements), the health and wellness proficiency requirement, and elective courses, if necessary, for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer institutions as listed.

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.

SMALL BUSINESS MANAGEMENT/ ENTREPRENEURSHIP CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BA 153	Small Business Management	3
BA 114	Marketing	3
BL 111	Business Law	3
BA 117	Supervision	3
BA 120	Management Accounting and Internal Control	3
or BUSA 100	Introduction to Accounting	(3)
BA 132	Computer applications for Managers	3
or BCOT 114	Introduction to Microsoft Office	(3)
TOTAL CERTIFICATE REQUIREMENTS:		18

RECOMMENDED COURSE:

BA 50	Business Math	3
BA 52	Fundamentals of Importing and Exporting	3
BA 62	Business on the Internet	1.5
BA 63	How to Start a Home-based Business	1.5
BA 104	Managing Cultural Diversity	3
BA 110	Advertising	3
BA 118	Management – Retailing	3
BA 121	Sales	3
BA 156	Motivational Presentation Skills for Managers	3
BA 171-174	Business Administration Occupational Work Experience	1-4

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

1. Meet the requirement for a Certificate of Achievement in Small Business Management/Entrepreneurship.
2. Take twelve units of the recommended courses not used forDepartment/Division requirements.
3. Complete general education requirements and electives to achieve a minimum of 60 units.
4. If you already have an AA degree or higher from a regionally accredited college, and you meet the Cerritos College General Education proficiency requirements, complete the Certificate Requirements to earn an AA in Small Business Management/ Entrepreneurship.

NOTE:Although many of the courses are transferable, the 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 Counselor or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

EMPLOYMENT DEVELOPMENT 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
BL 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, , BL 110, BL 111, 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.

BUSINESS MARKETING 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
TOTAL CERTIFICATE REQUIREMENTS:		18

RECOMMENDED COURSES:

BA 104	Managing Cultural Diversity	3
BA 106	Human Resource Management	3
BA 113	Legal Environment of Business	3
BA 115	Management – Business	3
BA 120	Management – Accounting and Internal Control	3
BA 132	Computer Applications for Managers	3
BA 156	Motivational Presentation Skills for Managers	3
BA 171-174	Business Administration Work Experience	1-4
BUSR 101	Real Estate Principles	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

PLAN A (Degree and/or Career Option): Meet the requirements for a Certificate of Achievement in Business Marketing (18 units). Take 12 units of the recommended Courses. Complete 18 units of identified general education courses (see Plan A Degree and/or Career Option), proficiency requirements and electives, if necessary, to total a minimum of 60 degree applicable units.

PLAN B (CSU General Education Requirements): Meet the requirements for a Certificate of Achievement in Business Marketing (18 units). Complete a minimum of 39 units of identified CSU general education courses (see Plan B CSU General Education Requirements), the health and wellness proficiency requirement, and elective courses, if necessary, for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer institutions as listed.

PLAN C (Intersegmental General Education Transfer Curriculum – IGETC – For Transfer to UC and CSU): Meet the requirements for a Certificate of Achievement in Business Marketing (18 units). Complete a minimum of 35 (UC) or 38 (CSU) units of identified general education courses (see Plan C – IGETC General Education Requirements), the health and wellness proficiency requirement, and elective courses, if necessary, for a minimum of 60 degree applicable units. Please check lower division major requirements for specified transfer institutions as listed.

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 COMPUTERIZED OFFICE TECHNOLOGIES PROGRAM

BUSINESS COMMUNICATIONS CERTIFICATE OF COMPLETION

DIVISON /DEPARTMENT REQUIREMENTS		UNITS
BCOM 45	Effective Communication for Managers	3
BCOM 51	Business Oral Communication	1.5
BCOM 147	Business Communications	3
BCOM 148	Effective Business Presentations	3
BCOM 150	International Business communication	3
BCOM 152	Job Search in the Business Field	1.5
BCOT 96	Microsoft Powerpoint Core/Expert Level	1.5
TOTAL CERTIFICATE REQUIREMENTS:		16.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Completion in Business Communications – and complete general education requirement and electives to achieve a minimum of 60 units. 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.

NOTE:Although many of these courses are transferable, this certificate of completion is nontransferable.

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

BILINGUAL BUSINESS OFFICE TECHNOLOGIES CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
BCOM 46	Business Communications	3
BCOT 63	Keyboarding Speed/Control Building	1
BCOT 96	Microsoft PowerPoint Core/Expert Level	1.5
BCOT 112	Microsoft Word for Windows	3.5
BCOT 113	Microsoft Excel	3.5
BCOT 131	Beginning College Keyboarding & Document Processing	3.5
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 63	Keyboarding Speed/Control Building	1
BCOT 82	Spanish Legal Office Terminology/Vocabulary	1.5
BCOT 112	Microsoft Word For Windows (for MOUS Preparation)	3.5
BCOT 131	Beginning College Keyboarding & Document Processing	3.5
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	Advanced College Keyboarding & Document Processing	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 CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
BCOM 147	Business Communications	3
BCOM 152	Job Search in the Business Field	1.5
BCOT 63	Keyboarding Speed/Control Building	1
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	Advanced College Keyboarding & Document Processing	3.5
BCOT 162	Business Spelling and Proofreading Skills	3
BL 56	Introduction to Computerized Legal Software	3
BL 101	Introduction to Law	3
TOTAL CERTIFICATE REQUIREMENTS:		33.5

ASSOCIATE IN ARTS REQUIREMENT:

Meet the requirements for a Certificate of Achievement in Legal Secretary 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 College Keyboarding & Document Processing 3.5	
or BCOT 132	College Keyboarding & Document Processing 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
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 63	Keyboarding Speed/Control Building (Two 9-week classes)	2
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 College Keyboarding & Document	3.5
or BCOT 132	College Keyboarding & Document Processing Review	(2)
BCOT 133	Advanced College Keyboarding & Document Processing	3.5
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. 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 62	Computer Keyboarding	1
BCOT 63	Keyboarding Speed/Control Building	1
BCOT 161	Principles of Filing	1
TOTAL CERTIFICATE REQUIREMENTS:		5.5

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.

See Cerritos College Graduation Requirements.

WORD PROCESSING
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 63	Keyboarding Speed/Control Building (Two 9-week classes)	2
BCOT 112	Microsoft Word for Windows (For MOUS preparation)	3.5
BCOT 131	Beginning College Keyboarding & Document Processing	3.5
or BCOT 132	College Keyboarding & Document Processing Review	(2)
BCOT 133	Advanced College Keyboarding & Document Processing	3.5
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.

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
CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
BCOM 147	Business Communications	3
BCOM 152	Job Search in the Business Field	1.5
BCOT 63	Keyboarding Speed/Control Building (Two 9 – week classes)	2
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	Advanced College Keyboarding & Document Processing	3.5
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/ Administrative Assistant 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 63	Keyboarding Speed/Control Building	1
BCOT 70	Medical Machine Transcription	4
BCOT 112	Microsoft Word for Windows (for MOUS preparation)	3.5
or BCOT 133	Advanced College Keyboarding & Document Processing	(3.5)
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	Advanced College Keyboarding & Document Processing	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 ASSOCIATE IN ARTS DEGREE

		UNITS
SECTION A - LEGAL SPECIALTY CORE REQUIREMENTS:		
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

PARALEGAL PROGRAM REQUIREMENT:

BL 111	Business Law	3

SECTION B

Must Complete Additional Units for a Total of 33 as are needed for an AA Degree from these Legal Specialty Courses

BL 52	Law Office Management	3
BL 57	Legal Document Production	3
BL 65	Advanced Legal Technology	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 110	Business Law	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 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
or BL 110	Business 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 TECHNOLOGY

BL 52	Law Office Management	3
BL 57	Legal Document Production	3
BL 65	Advanced Legal Technology	3

CRIMINAL LAW

BL 116	Criminal Law	3
BL 104	Advanced Legal Research	3
BL 102	Advanced California Civil Procedures	3
or BL 113	Fundamentals of Alternate Dispute Resolutions	3

BUSINESS LAW

BL 110	Business Law	3
BL 111	Business Law	3
BL 113	Fundamentals of Alternate dispute Resolutions	3

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, BL 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; BL 110, Business Law; BL 111, Business Law; BL 113, Fundamentals of Alternate Dispute Resolutions or BL 161, Consumer Law.

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

STATE REQUIREMENTS

The Court Reporters Board of California issues a certificate upon successful completion of the following requirements and passing of the state examination.

	HOURS
English and Vocabulary	215
Medical	125
Legal	175
Transcript Procedures	55
Apprenticeship Training	60
Technology	25
Resource Materials	5
TOTAL MINIMUM PRESCRIBED ACADEMIC HOURS	660
TOTAL MACHINE SHORTHAND AND TRANSCRIPTION	2300

		UNITS	May be Taken	HOURS
BUSC 57A	Beginning Aural Language Skills for Court Reporters	3.5		90
BUSC 57B	Advanced Aural Language Skills for Court Reports	3.5		90
BUSC 113	Legal Terminology	3		72
BUSC 114	Medical Terminology for Machine Shorthand	3		90
BUSC 115	Medical Shorthand for Court Reporters	4		90
BUSC 119A	Beginning Computer-Aided Transcription	3	2 times	99
BUSC 119C	Advanced Computer-Aided Transcription	3	3 times	99
BUSC 140	Computerized Shorthand Theory	4		144
BUSC 141	Computerized Shorthand Theory --Review/Skill Development	4	2 times	144
BUSC 142	Intermediate Computerized Shorthand	4.5	2 times	180
BUSC 143	Computerized Shorthand Speed Building I	4.5	2 times	180
BUSC 144	Computerized Shorthand Speed Building II	4.5	2 times	180
BUSC 145	Computerized Shorthand Speed Building III	4.5	3 times	180
BUSC 146	Computerized Shorthand Speed Building (140-170 wpm)	4.5	3 times	180
BUSC 147	Computerized Shorthand Speed Building (160-190 wpm)	4.5	4 times	180
BUSC 148	Computerized Shorthand Speed Building (180-210 wpm)	5	4 times	216
BUSC 149	Computerized Shorthand Speed Building (190-225 wpm)	5	4 times	216
BUSC 157	Congressional Testimony Computerized Shorthand Speed Development (160-190 wpm)	4.5	3 times	180
BUSC 158	Professional Practices Hearings/ Conferences Computerized Shorthand Speed Development (180-210 wpm)	5	3 times	216
BUSC 159	In Curian/In Camera Procedures Computerized Shorthand Speed Development (190-225 wpm)	5	3 times	216
BUSC 173/174	Business Court Reporting/ Computerized Shorthand Occupational Work Experience	3/4	4 times	60

BUSC 185	CSR/RPR Examination Preparation	1.5	3 times	27
BUSC 192	Transcription Procedures	2	2 times	54

Choose from the following for a minimum of 35 hours:

BCOT 162	Business Spelling and Proofreading Skills	3	54
BCOM 46	Business Communications	3	54
ENGL 50A	English Grammar	3	54
ENGL 53	Punctuation, Capitalization, and Spelling	3	54
ENGL 107	Vocabulary Building	3	54
ENGL 108	Vocabulary Building for Professionals	2	36

Choose from the following for a minimum of 103 hours:

BUSC 116	Introduction to Courtroom Procedures	4	108
BUSC 118	Deposition Procedures, Codes and Ethics	4	108

Total requirements must be a minimum of: 95/97 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 57B	Advanced Aural Language Skills for Court Reporters	3.5
BUSC 113	Legal Terminology	3
BUSC 115	Medical Shorthand for Court Reporters	4
BUSC 116	Introduction to Courtroom Procedures	4
BUSC 118	Deposition Procedures, Codes & Ethics	4
BUSC 119A	Beginning Computer-Aided Transcription	3
BUSC 119D	Basic Concepts of Realtime	3
BUSC 149	Computerized Shorthand Speed Building (190-225 wpm)	5
TOTAL		29.5

CAREER OPPORTUNITIES: Employment primarily as a court reporter in superior and municipal courts and the deposition field.

CART REPORTER/REALTIME CAPTIONER CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BUSC 119D	Basic Concepts of Realtime	3
BUSC 128	Computerized Shorthand Realtime Practicum IV	5
BUSC 193	Basic Captioning	5
SL 101	Beginning Sign Language	2
TOTAL CERTIFICATE REQUIREMENTS		15

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

Meet the requirements for a certificate of Completion in Scopist/ Proofreader and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE:Although many of these courses are transferable, this certificate is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

CERTIFIED REALTIME REPORTER CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BUSC 57B	Advanced Aural Language Skills for Court Reporters	3.5
BUSC 119C	Advanced Computer-Aided Transcription	3
BUSC 119D	Basic Concepts of Realtime	3
*BUSC 130	Computerized Shorthand Realtime Practicum (190-225 wpm)	4.5
TOTAL CERTIFICATE REQUIREMENTS:		14

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for Certificate of Completion in Proofreader and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this certificate is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

PROOFREADER – COURT REPORTING METHOD CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BUSC 57B	Advanced Aural language Skills for Court Reporters	3.5
BUSC 113	Legal Terminology	3
BUSC 139	Career Opportunities	1
BUSC 192	Transcription Procedures	2
TOTAL CERTIFICATE REQUIREMENTS:		9.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirement for Certificate of Completion in Proofreader and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE:Although many of these courses are transferable, this certificate is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

REALTIME RAPID TEXT ENTRY CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
BUSC 57B	Advanced Aural Language	3.5
BUSC 119D	Basic Concepts of Realtime	3
BUSC 125	Computer Shorthand Realtime Practicum I	4.5
BUSC 139	Career Opportunities	1
BUSC 146	Computerized Shorthand Speed Building (140-170 wpm)	4.5
TOTAL CERTIFICATE REQUIREMENTS		16.5

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

Meet the requirements for a Certificate of Completion in Text Entry-Business and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE:Although many of these courses are transferable, this certificate is nontransferable.

Please see Business Counselors or the respective department for additional alternative.

SCOPIST FOR COURT REPORTERS CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIREMENT:		UNITS
BUSC 57B	Advanced Aural Language Skills for Court Reporters	3.5
BUSC 113	Legal Terminology	3
BUSC 119C	Advanced Computer-Aided Transcription	3
BUSC 139	Career Opportunities	1
BUSC 192	Transcription Procedures	2
Choose from the following for a total of 3 units		
BUSC 114	Medical Terminology for Machine Shorthand	3
MA 161	Medical Terminology	3
TOTAL CERTIFICATE REQUIRMENTS:		15.5

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

Meet the requirements for a Certificate of Completion in Socpist/ Proofreader and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE:Although many of these courses are transferable, this certificate is nontransferable.

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

BUSINESS REAL ESTATE

CLASS COMPLETION CERTIFICATE 3 UNITS
REAL ESTATE DEPARTMENT AWARD 12/13 UNITS
REAL ESTATE CERTIFICATE OF ACHIEVEMENT 18/20 UNITS
CALIFORNIA REAL ESTATE CERTIFICATE25/26 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)
BL 111	Business Law	3
BA 121Sales	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	1/4
Choose from the following for a total of 12-13 units:		
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:		
BL 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 a course in Real Estate Practice and one real estate course selected from among the following:Real Estate Practice--Legal Aspects of Real EstateReal Estate Appraisal--Real Estate FinanceAccounting (any course)--Real Estate EconomicsBusiness Law--Fundamentals of EscrowR.E. Property Management--R.E. Office AdministrationMortgage 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 EstateReal Estate Appraisal--R.E. Economics **OR** AccountingReal 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—Computer Applications in Real Estate
*If an applicant completes both Accounting and Real Estate Economics, only two additional courses are required.
*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.

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 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND THE UNIVERSITY OF CALIFORNIA

		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 201	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

English 103 is university requirement and must be taken for all majors at CSULA.

NOTE: CSULA students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CSULA as the prerequisite for their writing proficiency requirement.

California State Polytechnic University – Pomona

CHEM 205	Quantitative Analysis Chemistry	4
CIS 180	Programming in C/C++	3
MATH 240	Calculus and Differential Equations	4
PHYS 203	Engineering Physics	4

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

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

University of California – Riverside*

CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 220	Analytic Geometry and Calculus III	5
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.

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: Chemistry graduates with their Bachelor's Degrees qualify for graduate studies in Chemistry or Biochemistry. Chemistry graduates find rewarding careers in teaching, medicine, pharmacy, forensic science and industrial and governmental scientific endeavors.

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

CHICANO STUDIES 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 State University – Long Beach

SPAN 245	Introduction to Chicano/Mexican American Culture	3

California State University – Dominguez Hills

SPAN 245	Introduction to Chicano/Mexican American Culture	3

ENGL 102 or 103 recommended

See a counselor for campus specific information.

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

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 Certificate of Completion
   - Preschool Director Certificate of Completion
   - Family Child Care Certificate 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: Infant/Toddler Teacher
   - Certificate of Achievement: Child Development/School-Age Child Care
   - Certificate of Achievement: Child Development/Special Education
   - Certificate of Achievement: child Development/ Educational Paraprofessional

D. **A.A. 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 CERTIFICATE 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 – DS	3
CDEC 113	The Child, Family and Community – DS2	3

A2. PRESCHOOL DIRECTOR SPECIALIZATION AND CERTIFICATE 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. FAMILY CHILD CARE SPECIALIZATION AND CERTIFICATE OF COMPLETION: (9 UNITS)

To qualify for this verification, the student must complete the three courses at Cerritos College. 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.*

COURSES		UNITS
CD 110	Child Development	3
CDFC 10	Family Child Care Providers	3
(offered Spring semester only)		
CDEC 161	Nutrition, Health, & Safety in Children's Programs	3

*TO QUALIFY FOR CREDIT FOR CERTIFICATE 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 164	Early Childhood Education Practicum	3

The student must also **choose and complete an additional 12 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

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 Diverse 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 161	Nutrition, Health & Safety in Children's Programs – DS3	3
CDEC 62	Exploring Creative Art Expression By Children – DS3	3
CDEC 63	Early Childhood Experiences in Language Arts and Social Sciences - DS3	3
or CDEC 134	Heads Up Reading – A, B	2
CDEC 164	Early Childhood Education Practicum – DS3	3
CDEC 65	Music and Movement for Children – DS3	3
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 from the following for a total of 3 units:

CDIT 151	Infant and Toddler Development	3
CDIT 152	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		41/42

*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

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		41/42
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		50/51

C3. CERTIFICATE OF ACHIEVEMENT: SCHOOL-AGE CHILD CARE

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 110	Child Development – DS 1	3
CD 115	Parent School Partnership	3
CDEC 62	Exploring Creative Art Expression by Children – DS 3	3
CDEC 161	Nutrition, Health & Safety in Children's Programs – DS 7	3
CDEC 63	Early Childhood Experiences in Language Arts and Social Sciences – DS 3	3
CDEC 113	The Child, Family, and community – DS 2	3
CDSA 152	School-Age Child Care Supervision and Administration – DS 6 (offered in Spring semester only)	3
CDSA 155	School-Age Child Care Activities – DS 5 (offered in Fall semester only)	3
CDSA 259	School-Age child Care Practicum – DS 5	3
TOTAL CERTIFICATE REQUIREMENTS		27

C4. CERTIFICATE OF ACHIEVEMENT: INFANT/TODDLER TEACHER

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 Diverse Society	3
CDEC 161	Nutrition, Health and Safety in Children's Programs	3

CDEC 111	Principles and Practices in Early Childhood Education – DS 3	3
CDEC 112	Early Childhood Education Curriculum – DS 3	3
CDEC 113	The Child, Family and Community – DS 2	3
CDIT 151	Infant and Toddler Development	3
CDIT 152	Infant and Toddler Programs	3
TOTAL CERTIFICATE REQUIREMENTS		24

C5. CERTIFICATE OF ACHIEVEMENT: CHILD DEVELOPMENT/ SPECIAL EDUCATION

NOTE: APPLICATION FOR CERTIFICATE OF ACHIEVEMENT MUST BE MADE AT THE OFFICE OF ADMISSIONS AND RECORDS

COURSES		UNITS
CD 110	Child Development	3
CD 124	The Child in a Diverse Society	3
CD 139	Observation, Assessment and Positive Guidance of Childhood Behavior	3
CDEC 62	Exploring Creative Art Expression by Children – DS 3	3
CDSE 50	Survey of Special Education	
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 150	Emergency and Safety Management	3
*CDSE 73/74	Special Education Assistant Occupational Work Experience	3 - 4
TOTAL CERTIFICATE REQUIREMENTS		32/33

*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.

C6 CERTIFICATE OF ACHIEVEMENT: EDUCATIONAL PARAPROFESSIONAL COURSES

		UNITS
CDIA 90	Introduction to Elementary and Secondary Classroom Experience	3
*CDIA 99	Instructional Aide Practicum	3
CD 110	Children Development	3
CD 115	Parent School Partnerships	3
CD 124	The Child in a Diverse Society	3
CD 139	Observation, Assessment and Positive Guidance of Childhood Behavior	3
CDEC 62	Exploring Creative Art Expression by Children – DS 3	3
CDSE 50	Survey of Special Education	3
CDSE 52	Special Education Inclusion in Early Childhood Programs	3
EDT 52	Windows for Educators	1
EDT 110	Introduction to Educational Technology	2
TOTAL CERTIFICATE REQUIRMENTS:		30

CIDA 99 requires of the student 6 hours per week in a school environment, normally during daytime hours.

*If currently employed as an Educational Paraprofessional, enroll in CDIA 73, CDIA 74, CDSE 73 or CDSE 74.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement for Educational Paraprofessional. Plus, for an A.A. Degree, a student must complete electives and general education requirements to achieve a minimum of 60 units.

See Cerritos College Graduation Requirements.

CAREER OPPORTUNITES: Employment as an Educational Paraprofessional in a classroom situation.

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 151, CDIT 152, 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 CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES		UNITS
CIS 70A	Networking Fundamentals	3.5
CIS 70B	Local Area Networks	3.5
CIS 70D	Introduction to TCP/IP	1.5
CIS 70E	Router Configuration and Protocols	3.5
CIS 70F	Advanced Switching and Routing	3.5
CIS 70G	Wide Area Networks	3.5
		19
Choose 10.5 units from the following courses:		
CIS 58A	Windows for the COMPTIA A+ Certification Exam	3.5
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 212A	Microsoft Windows 2000 Professional	3.5
CIS 212B	Microsoft Windows 2000 Server	3.5
CIS 213	Microsoft Windows Directory Services	3.5
CIS 214	Unix	3
CIS 215B	Solaris Administration I	3.5
CIS 215C	Solaris Administration II	3.5
TOTAL CERTIFICATE REQUIREMENTS		29.5

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 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	3.5
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 from the following for a total of (15) units:

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 175	RPG Programming	3
CIS 176	COBOL Programming	3
CIS 180	Programming in C/C++	3
CIS 201	Systems Analysis and Design	3
CIS 207	SQL Programming	3
CIS 208	Oracle Database Programming	3
CIS 212	Windows 2000 Professional and Server	3
CIS 214	Unix	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 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	3.5
CIS 171	Visual Basic Programming	3
or CIS 186	Visual Basic.NET Programming	(3.5)
or CIS 180	Programming in C/C++	(3)
or CIS 182	Java Programming	(3.5)
CIS 207	Database Design and SQL	3.5
or CIS 208A	Oracle SQL and PL/SQL Programming	(3.5)
or CIS 208B	Oracle Database Applications	(3.5)
CIS 221	Advanced Visual Basic	3
or CIS 221A	Object-Oriented Programming in VB.NET	(3)
or CIS 280	Object-Oriented Programming in C++	(3)
or CIS 282	Advanced Java Programming	(3.5)
CIS 292	Data Structures	3.5
BCOM 147**	Business Communications	3

Choose from the following for a total of (12) units:

CIS 80	Programming in Access	3
CIS 82	Visual Basic Scripting	1.5
CIS 121	Introduction to Internet for Information Systems/ Information Technology	1.5
CIS 125	JavaScript Programming	1.5
CIS 140	Query/400	1
CIS 141	AS/400 Operations	3
CIS 171	Visual Basic Programming	3
CIS 175	RPG Programming	3
CIS 176	COBOL Programming	(3)
CIS 186	Visual Basic.NET Programming	3.5
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 Scripting	1.5
CIS 207	Database Design and SQL	3.5
CIS 208A	Oracle SQL and PL/SQL Programming	3.5
CIS 208B	Oracle Database Applications	3.5
CIS 212	Windows 2000 Professional and Server	3
CIS 214	Unix	3
CIS 215A	Solaris Fundamentals	3.5
CIS 221	Advanced Visual Basic	3
CIS 221A	Object-Oriented Programming in VB.NET	3
CIS 221B	Database Programming in VB.NET	3
CIS 222	Advanced RPG Programming	3.5
CIS 223	VisuaAge RPG	3
CIS 224	Advanced COBOL Programming	3
CIS 271/272/ 273/274	CIS Occupational Work Experience	1/2/3/4
CIS 280	Object-Oriented Programming in C++	3
CIS 281	Windows Programming with Visual C#.NET	3
CIS 282	Advanced Java Programming	3.5

CIS 283A	Java Server Pages (JSP) Programming	3,5
CIS 284	CGI and PERL Programming	3.5
CIS 285	Active Server Pages Programming	3.5
CIS 285A	Active Server Pages.NET Programming	3.5
TOTAL CERTIFICATE REQUIREMENTS:		36.5/38

**Meets A.A. Degree General Education – "Communication and Analytical Thinking" requirement. MATH 60 may be substituted.*

***Meets A.A. Degree General Education – "English Composition" requirement.*

NOTE: CIS 52, 101, 102, and 103 meet A.A. Degree General Education – "Communication and Analytic Thinking" requirement and the "A.A. Math Proficiency" 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 CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS:		UNITS
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	3.5
CIS 151	Microsoft Excel for IS/IT	3.5
CIS 201	Systems Analysis and Design	3
CIS 202A	Project Management for IT	1.5
CIS 207	Database Design and SQL Programming	3
or CIS 208A	Oracle SQL and PL/SQL	(3)
or CIS 80	Programming in Access	(3)
BCOM 147**	Business Communications	3
Choose 6 units from the following courses:		
CIS 56	Microcomputer Disk Operating Systems	3
CIS 141	AS/400 Operations	3
CIS 186	Visual Basic.NET Programming	3.5
CIS 212	Windows 2000 Professional and Server	3
Choose 6 units from the following courses:		
CIS 121	Introduction to Internet	1.5
or CIS 126	JavaScript for Non-Programmers	3
CIS 141	AS/400 Operations	3
CIS 155	Microsoft Access	3
CIS 175	RPG Programming	3
CIS 180	Programming in C/C++	3
CIS 186	Visual Basic.NET Programming	3.5
CIS 205	Programming in HTML for the World Wide Web	1.5
CIS 206	XML Scripting	1.5
CIS 212	Windows 2000 Professional and Server	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++	3
CIS 281	Windows Programming w/Visual C#.NET	3
CIS 285A	.ASP.NET Programming	3
TOTAL CERTIFICATE REQUIREMENTS:		37.5

**Meets A.A. general education requirement, may substitute MATH 60*
***Meets A.A. general education requirement, may substitute ENGL 100*

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 Certificate of Achievement in Computer and Information Sciences-Systems Analyst. 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 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	3.5
CIS 105	Using Microsoft Windows	1.5
CIS 151	Microsoft Excel for Information Systems/ Information Technology	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 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 212	Windows 2000 Professional Server	3
CIS 214	Unix	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 CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
CIS 52*	Data Processing Mathematics	3
CIS 103	Computer Programming Logic	3.5
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 from the following for a total of (5) units:		
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 CIS 273/274	CIS 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.

SOFTWARE DEVELOPMENT IN JAVA CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 182	Java Programming	3.5
CIS 282	Advanced Java Programming	3.5
CIS 283A	Java Server Pages (JSP) Programming	3.5
TOTAL CERTIFICATE REQUIREMENTS		14

A certificate of completion in the Software Development in Java Certificate of Completion will be granted by the division upon completion of 14 units.

SOFTWARE DEVELOPMENT IN C++/VISUAL C# CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 180	Programming in C/C++	3.5
CIS 280	Object-Oriented Programming in C++	3
CIS 281	Windows Programming with Visual C#.NET	3
CIS 292	Data Structures	3.5
TOTAL CERTIFICATE REQUIREMENTS		16.5

A Certificate of completion in the Software Development in C++/ Visual C# Certificate of Completion will be granted by the division upon completion of 16.5 units.

IBM ISERIES 400 SERVER OPERATIONS CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 141	iSeries 400 Operation	3
CIS 141A	Operations Navigator	1.5
CIS 240	Control Language Programming	3
TOTAL CERTIFICATE REQUIREMENTS		11

A certificate of completion in the IBM iSeries 400 Operations Certificate of Completion will be granted by the division upon completion of 11 units.

SOFTWARE DEVELOPMENT IN DATABASE APPLICATION CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 186	Visual Basic.NET Programming	3.5
CIS 207	Database Design and SQL	3.5
CIS 221B	Database Programming in VB.NET	3
TOTAL CERTIFICATE REQUIREMENTS		13.5

A certificate of completion in the Software Development Database Application Certificate of Completion will be granted by the division upon completion of 13.5 units.

LINUX APPLICATION PRODUCTIVITY CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 85	Unix Productivity Tools	3.5
CIS 101	Introduction to CIS	3
CIS 214	Unix/Linux Fundamentals	3.5
TOTAL CERTIFICATE REQUIREMENTS		10

A certificate of completion in the Linux Application Productivity Certificate will be granted by the division upon completion of 10.5 units.

MICROSOFT SYSTEMS ADMINISTRATOR CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 212	Windows 2000 Professional/Server	3.5
CIS 212A	Windows XP	3.5
CIS 213A	Windows Activity Directory Administration	3.5
CIS 213B	Windows Network Infrastructure	3.5
CIS 213F	Windows 2003 Server Administration	3.5
TOTAL CERTIFICATE REQUIREMENTS		17.5

A certificate of completion in the Microsoft Systems Administrator Certificate will be granted by the division upon completion of 17.5 units.

NETWORK ADMINISTRATOR CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 70A	Network Fundamentals	3.5
CIS 70B	LAN	3.5
CIS 70D	TCP/IP	1.5
CIS 70E	Switching/Routing	3.5
CIS 70F	Advanced Switching/Routing	3.5
TOTAL CERTIFICATE REQUIREMENTS		15.5

A certificate of completion in the Network Administration Certificate of Completion will be granted by the division upon completion of 15.5 units.

UNIX ADMINISTRATION CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 214	Unix/Linux Fundamentals	3.5
CIS 215B	Solaris Administration I	3.5
CIS 215C	Solaris Administration II	3.5
TOTAL CERTIFICATE REQUIREMENTS		10.5

A certificate of completion in the Unix Administration Certificate of Completion will be granted by the division upon completion of 10.5 units.

COMPUTER INFORMATION SYSTEMS ANALYST CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 186	Visual Basic.NET Programming	3.5
CIS 201	Systems Analysis and Design	3
CIS 202A	Project Management for IT	1.5
CIS 207	Database Design and SQL Programming	3.5
or CIS 208A	Oracle SQL and PL/SOL	3.5
or CIS 80	Programming in Access	3.5
TOTAL CERTIFICATE REQUIREMENTS		15

A certificate of completion in the Computer Information Systems Analyst Certificate of Completion will be granted by the division upon completion of 15 units.

DATABASE APPLICATION DEVELOPMENT FOR MICROSOFT ACCESS CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 80	Programming in Access	3.5
CIS 103	Computer Programming Logic	3.5
CIS 155	Microsoft Access	3.5
CIS 186	Visual Basic.NET Programming	3.5
TOTAL CERTIFICATE REQUIREMENTS		14

NOTE: CIS 103 can be replaced by CIS 180 or CIS 182 with the approval of the certificate advisor.

A certificate of completion in the Database Application Development for Microsoft Access Certificate of Completion will be granted by the division upon completion of 14 units.

CYBER SECURITY CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 70A	Network Fundamentals	3.5
CIS 70K	Wireless Network	3
CIS 70L	Network Security Fundamentals	3.5
CIS 72B	Special Topics in Security	3.5
CIS 213H	Microsoft Windows Security	3.5
TOTAL CERTIFICATE REQUIREMENTS		17

A certificate of completion in the Cyber Security Certificate will be granted by the division upon completion of 17 units.

A+CERTIFICATION PREPARATION CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 58A	PC Operating System A+ Certification	3.5
CIS 58B	PC Core Hardware A+ Certification	3.5
TOTAL CERTIFICATE REQUIREMENTS		7

A certificate of completion in the A+ Certification Preparation Certificate will be granted by the division upon completion of 7 units.

WEB SERVER DEVELOPMENT CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 186	Visual Basic.NET Programming	3.5
CIS 205	Programming in HTML	1.5
CIS 285A	ASP.NET Programming	3.5
TOTAL CERTIFICATE REQUIREMENTS		12

A certificate of completion in the Web Server Development Certificate of Completion will be granted by the division upon completion of 12 units.

WEB CLIENT DEVELOPMENT CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 125	JavaScript for Programmer	1.5
CIS 205	Programming in HTML	1.5
CIS 206	XML Scripting	1.5
TOTAL CERTIFICATE REQUIREMENTS		8

A certificate of completion in the Web Client Development Certificate of Completion will be granted by the division upon computer of 8 units.

SOFTWARE DEVELOPMENT IN VISUAL BASIC.NET CERTIFICATE OF COMPLETION

REQUIRED COURSES		UNITS
CIS 103	Computer Programming Logic	3.5
CIS 186	Visual Basic.NET Programming	3.5
CIS 221A	Object-Oriented Programming in VB.NET	3
CIS 221B	Database Programming in VB.NET	3
TOTAL CERTIFICATE REQUIREMENTS		13

A certificate of completion in the Software Development in visual Basic.NET Certificate of Completion will be granted by the division upon completion of 13 units.

SOFTWARE DEVELOPMENT IN THE UNIX/LINUX ENVIRONMENT CERTIFICATE OF COMPLETION

REQUIRED COURSE UNITS		
CIS 103	Computer Programming Logic	3.5
CIS 180	Programming in C/C++	3.5
CIS 181A	Unix Programming in C/C++	3.5
CIS 214	Unix/Linux Fundamentals	3.5
TOTAL CERTIFICATE REQUIREMENTS		14

A certificate of completion in the Software Development in the Unix/Linux Environment Certificate of Completion will be granted by the division upon completion of 14 units.

COMPUTER SCIENCE 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 230	Assembly Programming for Microcomputers	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4
California State University - Long Beach		
CIS 182	JAVA Programming	3.5
CIS 280	Object-Orientated Programming in C++	3
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

California State University - Los Angeles

ENGL 103	Critical and Argumentative Writing	3
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

California State University – Fullerton

BIOL 120	Introduction to Biological Sciences	4
CIS 214	Unix	3
CIS 230	Assembly Programming for Microcomputers	4
CIS 292	Data Structures	3.5

One of the following Physical Science Combinations:

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)
GEOL 201	Earth History	(4)

California State Polytechnic University - Pomona

CIS 182	JAVA Programming	3.5
CIS 230	Assembly Programming for Microcomputers	4
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

University of California - Irvine

(Information and Computer Science)

CIS 280	Object-Oriented Programming in C/C++	3
CIS 182	Java Programming	3.5
CIS 292	Data Structures	3.5

One of the following Science combinations:

PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
or PHYS 201	Engineering Physics	(4)
PHYS 203	Engineering Physics	(4)
or CHEM 111	General Chemistry	(5)
CHEM 112	General Chemistry	(5)
or BIOL 201	Principles of Biology	(5)
BIOL 202	Molecular Biology/ Genetics	(4)

University of California - Los Angeles

CIS 180	Programming in C/C++	3
or CIS 280	Object-Orientated Programming in C++	(3)
CIS 230	Assembly Programming for Microcomputers	4
CIS 292	Data Structures	3.5
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
ENGL 100	Freshman Composition	4
and ENGL 102	Freshman Composition and Literature	3
or ENGL 103	Critical Argumentative Writing	(3)
or PHIL 202	Critical Thinking and Argumentative Writing	(3)
or PSYC 103	Critical Thinking in Psychology	(3)
or SPCH 235	Fundamentals of Argumentation and Persuasion	(3)

Four courses from across the following categories: Humanities and /or Social Sciences. Contact counselor for assistance in selecting these courses.

ASSOCIATE IN ARTS REQUIREMENTS:

Complete the 60 units to include (1) Math 170, 190, Phys 201, CIS 180, 280. (2) The Associate in Arts general education degree requirements.

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

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.

ESTHETICIAN PROGRAM

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The completion of 60 units to include: 1) courses for completion of the Certificate of Achievement in Esthetics, 2) General education course requirements, Stage Make-up (TH 123), and electives as needed.

RECOMMENDED ELECTIVES		UNITS
BA 100	Fundamental of Business	3
BA 111	Business Law	3
BA 114	Marketing	3
BA 117	Introduction to Supervision	3
BA 121	Sales	3
BA 153	Small Business Management	3
BCOT 114	Introduction to Microsoft Office	3.5
BUSA 60	Quick Book Accounting	1.5
TH 123	Stage Make-up	3
		26

See Cerritos College Graduation Requirements

CERTIFICATE OF ACHIEVEMENT

The Esthetician curriculum consists of a minimum of 600 clock hours of esthetic class work. The curriculum prepares the student for the State Board of Cosmetology Examination for Esthetician. Students enrolling in the esthetician 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 Esthetician program PART-TIME – DAYS: the student may complete the 600-hour program by attending two regular semesters and attend class from 11:30 a.m. – 4:30 p.m. Monday through Thursday. EVENINGS: Students enrolling in this plan attend class 5:30 p.m. – 10:30 p.m. Monday through Thursday. It requires two regular semesters to complete the 600 – hours program.

MAJOR REQUIREMENTS		UNITS
COS 54	Introductory Esthetician	10
COS 54A	Advanced Esthetician	10

VOCATIONAL AND PROFESSIONAL OPPORTUNITIES AT COMPLETION OF PRGRAM AND AFTER OBTAINING THE ESTHETICIAN LICENSE:

Day salon or spa owner, distributors and manufacturers of specialty skin care, product educators, make-up artist on movie sets, television and theaters. Licensed Estheticians who are interested in working in a medical setting are highly desired by plastic surgeons and dermatologists as freelance Estheticians or as paramedical Estheticians.

COURT REPORTING--SEE BUSINESS COURT REPORTING

CULINARY ARTS--CHEF'S TRAINING

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	1
TOTAL CERTIFICATE UNITS		32.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Complete 60 units to include (1) the above requirements for the Certificate of Achievement, (2) the Associate in Arts Degree requirements, and (3) electives as needed.

Additional Expenses: Students will be required to purchase a 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, grade helper, roast cook.

See Cerritos College Graduation Requirements.

CULINARY ARTS--PROFESSIONAL BAKING AND PASTRY

CERTIFICATE OF ACHIEVEMENT		UNITS
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 101	Introduction to Food Service Safety & Sanitation	1
TOTAL CERTIFICATE UNITS		18

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the above requirements for Certificate of Achievement. 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 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 for details.

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

PE 181	Introduction to Dance Cultures of the World	2

California State University Fullerton:

PE 184	Choreography Improvisation	3
PE 190	Rhythmic Analysis/Dance Notation	3

University of California Irvine:
Dance (All emphases)

PE 191	History of Dance (lecture)	3
	And one course from:	
PE 181	Introduction to Dance Cultures of the World	2
or PE 193	Introduction to Ballroom Dance	2
or PE 196	Latin Social Dance	2
or TH 142	Theatre Dance Beginning Tap	2
or TH 143	Theatre Dance Intermediate Tap	2

Choreography Emphasis or Performance Emphasis

PE 184	Choreography Improvisation	3
PE 190	Dance Notations (lecture)	3
TH 110	Fundamentals of Acting	3.5
TH 222	Stage Lighting	3

Students wishing to major or minor in dance must audition for placement prior to starting the program. Applicants should contact the Department of Dance to obtain audition dates and an audition application form. Students desiring more information should contact the department office for referral to one of the faculty advisors. 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.

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

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
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 registered 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 summer 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 career in dental hygienist offers multiple opportunities in a variety of settings. A registered 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 patients' charts, and have the dexterity to use small dental instruments to provide dental hygiene care.

DENTAL HYGIENE PROGRAM REQUIREMENTS

I. Prerequisites

A. CHEM 100, A&P 200, A&P 201, (or A&P 150 and A&P 151), HO 152 and MICRO 200 or equivalent with a grade of "C" or higher.

B. 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. In an attempt to increase eligibility by repeating a prerequisite course to obtain a higher grade, the Dental Hygiene Department will allow any prerequisite course to be repeated a maximum of **ONE** time, and will accept the higher of the two grades earned.

D. A valid adult, child, and infant CPR card including two person CPR is required prior to enrolling in the Dental Hygiene Program 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
Receive satisfactory scores on the Cerritos College Assessment/ Placement Tests 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 Dental Hygiene Application. To complete this procedure, the student must have a **student copy** of all transcripts from previously attended colleges and documentation of courses in progress.

C. Application forms
If not presently enrolled in courses at Cerritos College, apply for admission to the college at the Admissions and Records Office in the Administration building or apply online at www.cerritos.edu. You will be assigned a student number which you will need to make an appointment with a dental Hygiene counselor or to attend an application workshop.

D. 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 or online at www.cerritos.edu (dental hygiene). 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, ALL official college transcripts, and work-in-progress must be in our possession in the Health Occupations Division Office, by April 1 (of the year of application).
2. Points will be earned for the following criteria:
   a. Grade Point Average in prerequisites
   b. Number of units completed up to 60 semester units
   c. Overall Grade Point Average for all college courses
   d. Additional science courses with a grade of "B" or higher
   e. Related dental work experience
3. Selection will be based upon academic evaluation and data obtained from the application forms. Candidates will be notified of their application status by mail during the month of May.

B. Health Forms
Physical examinations, immunization, TB testing and background checks are required prior to patient care and taking the licensure examinations. 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 requested from the Dental Hygiene Department or on the Dental Hygiene website.

IV. Expenses

A. See Cerritos College catalog for enrollment and out-of-state resident fees.

B. The student may expect to spend approximately $10,000 for books and instruments, equipment, uniforms, immunizations, and miscellaneous fees. Students are strongly encouraged to join the Student American Dental Hygienists' Association (SADHA) ($45.00 annually). Fees are subject to change.

V. Scholarship, Attendance, Promotion, Graduation

A. Attendance: All students are required to observe the attendance requirements of the college. Due to the nature of the Dental Hygiene program it is expected that student will attend all classes.

B. Scholarship and Promotion: Students are required to maintain a grade of "C" or higher in each dental hygiene and dental education course in order to progress in the program. Courses are designed to prepare the student to successfully complete program competencies. 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 Dental Hygiene National Board and the California State Board Examinations.

VI. Criminal Background Checks

A. Clinical placements are a mandatory component of the curriculum and may require clearance of a criminal background check. Students who do not clear agency requirements are not eligible for clinical placement and will, consequently, be ineligible to continue in the program. If there is any concern regarding clearance of a criminal background check, please contact the Health Occupations Division for additional information.

B. 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, prior to applying to the program.

DENTAL HYGIENE
ASSOCIATE IN ARTS DEGREE

Please note, the Dental Hygiene program requires the student to take as many as seven courses during any one semester. Consequently, commitment to a rigorous study schedule is imperative.

MAJOR REQUIREMENTS

FIRST YEAR		**UNITS**
First Semester		
DH 110	Preventive Dentistry I	2
DH 111	Infection Control and 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 and Neck Anatomy	2
DH 119	Dental Embryology, Histology and Anatomy	2
TOTAL		14

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 and Oral Pathology	2
DH 127	Pharmacology	2
DH 128	Management of Pain	2
DH 129	Applied Periodontics	2
TOTAL		15

SUMMER SESSION

DH 150C	Clinical Dental Hygiene IIA	1

SECOND YEAR

First Semester

DH 232L	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
TOTAL		12

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 and Research II	2
TOTAL		11
TOTAL CERTIFICATE		53

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, 150 or 235)
American Political Institutions (POL 101 or 201) OR
History (HIST 101, 201 and 202)
Introductory Sociology Principles (SOC 101,201, 215, PHIL 104, ANTH 100 or 101)
*Humanities OR Fine Arts (3 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 TRANSFER PROGRAM

(The following curriculum does not lead to an Associate in Arts Degree. To earn an AA degree, see Dental Hygiene in the catalog for the major requirements.)

University of Southern California

Minimum entrance requirements:
BIOL 201
A&P 200
CHEM 111
CHEM 112
ENGL 100
ENGL 102 OR ENGL 103
PSYC 101
SOC 101
SPCH 100

Students must complete the USC general education requirements, (categories I,II,III,V) and the writing and diversity requirements in addition to the above courses.

University of California, San Francisco

Applicants for admission to the dental hygiene curriculum must meet the requirements for admission to the University of California as well as the requirements listed below. The University of California requires that English composition, American History, principles of American institutions and 3 years of high school math or college math equivalents satisfying high school deficiencies) be completed in order to receive the degree. These courses must be completed prior to admission at UCSF. Students must complete 90 quarter or 60 semester units of college work at an accredited institution is a minimum requirement for admission to the dental hygiene curriculum. These units must include the following subjects:

English: One year of English composition and literature

Chemistry: Inorganic chemistry with laboratory. A minimum of two quarters or one semester of inorganic chemistry with laboratory,

Biological Sciences: One year of college biology or zoology with laboratory designed for science majors. Vertebrate zoology is strongly recommended.
Psychology: general psychology

Social sciences, humanities or foreign language: An introduction to sociology course and a public speaking/oral communication course must be included in this requirement. Interpersonal communication does not fulfill this requirement.

Additional electives: The total number of units must be at least 90 quarter or 60 semester units. Recommended: physiology and biochemistry in addition to biological sciences noted above.

Entrance requirements may differ at other transfer institutions offering the Dental Hygiene major, for more details consult specific school catalogs.

ECONOMICS
TRANSFER PROGRAM

LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University-Long Beach		UNITS
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-B.A.

Same requirements as Economics except that the minimum of two courses outside Economics is not required.

MATHEMATICAL ECONOMICS AND ECONOMIC THEORY

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
MATH 220	Analytic Geometry and Calculus III	4

California State University-Fullerton

Student must earn a grade of at least "C" in each course listed below.

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
BUSA 101	Fundamentals of Accounting I	4
and BUSA	133Spreadsheet 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

There is also a CSUF lower-division business writing course required which is not offered at Cerritos College.

California State University-Dominguez Hills

Common core lower division required courses.

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
or CIS 171	Visual Basic Programming	(3)
MATH 116	Calculus for Managerial, Biological & Soc.Sciences	4

California State University-Los Angeles

Core requirements.

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

Additional courses required.

Students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CSULA as the prerequisite for their writing proficiency requirement.

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
MATH 150	Precalculus Mathematics	4

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

Listed below are the lower division preparation courses for the major. **THIS MAJOR IS HIGHLY SELECTIVE.** All preparatory courses should be completed by the spring term just prior to transfer. All courses must be taken for a letter grade. The calculus course requirements should be met as early as possible. **After transfer to UCLA, students may not change their major to Economics if they were originally admitted to a major outside the Department of Economics.** For more information regarding this major and UCLA's transfer selection process, visit, www.econ.ucla.edu and www.admissions.ucla.edu.

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)
or PHIL 202	Critical Thinking and Argumentative Writing	(3)
or PSYC 103	Critical Thinking in Psychology	(3)
or SPCH 235	Fundamentals of Argumentation and Persuasion	(3)

Business Economics- B.A.

THIS MAJOR IS HIGHLY SELECTIVE. All preparatory courses should be completed by the spring term just prior transfer. All courses must be taken for a letter grade. The calculus course requirements should be met as early as possible. **After transfer to UCLA, students may not change their major to Business Economics if they were originally admitted to a major outside the Department of Economics.**

Note: **The Business Economics major does not replicate the traditional undergraduate business school curriculum.** For more information regarding this major and UCLA's transfer selection process, visit www.econ.ucla.edu and www.admissions.ucla.edu**.**

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)
or PHIL 202	Critical Thinking and Argumentative Writing	(3)
or PSYC 103	Critical Thinking in Psychology	(3)
or SPCH 235	Fundamentals of Argumentation and Persuasion	(3)

Economics/International Area Studies-B.A.

THIS MAJOR IS HIGHLY SELECTIVE. Except for the courses in foreign language, ALL preparatory courses should be completed by the spring term just prior to transfer. All courses must be taken for a letter grade. The calculus course requirements should be met as early as possible. **After transfer to UCLA, students may not change their major to Economics/International Area Studies if they were originally admitted to a major outside the Department of Economics. For more information regarding this major and UCLA's transfer selection process visit** www.econ.ucla.edu **and** www.admissions.ucla.edu**.**

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

Preference will be given to junior-level applicants with the highest grades overall and who have satisfactorily completed the following **required** courses: one year of microeconomics and macroeconomics theory and one semester or two quarters of calculus with a minimum average grade of B.

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
or CIS 101	Introduction to Computer Information Systems	(3)
or CIS 101	Introduction to Computer Information Systems	(3)
and CIS 103	Computer Programming Logic	(3)

Two additional introductory social science courses in disciplines other than economics is another requirement. An approved list of courses can be obtained from *ASSIST*. 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 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 108	Photoshop Elements for Educators	2
EDT 109	Developing Campus Based Portfolios	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
EDT 121	Using Handheld Computers in Education	2
EDT 122	Fundraising/Grand Writing for Educators	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.

EXERCISE SCIENCE – SEE PHYSICAL EDUCATION

INSTRUCTIONAL MULTI-MEDIA 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 Photograph	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 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.

ART 196	Introduction to Designing Web Graphics	3
CIS 50	Basic Computer Literacy	.5
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
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.

ELECTRONICS TECHNOLOGY ASSOCIATE IN ARTS DEGREE

REQUIRED COURSES		UNITS
ELECTRONICS TECHNOLOGY - 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 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.

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

See Cerritos College Graduation Requirements.

ELECTRONICS TECHNOLOGY 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

REQUIRED COURSES		UNITS
Electronics Technology 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 (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.

Related Transfer Program: Industrial Technology – Electronics

See Cerritos College Graduation Requirements.

COMPUTER SERVICING TECHNOLOGY OPTION

REQUIRED COURSES		UNITS
Electronics Technology Basic Core Courses		**24**
Additional Required Courses		
EL 54	Microcomputer Repair Fundamentals	3
EL 244	Introduction to Microcomputers	4
Choose from the following for a total of (6) units:		
CIS 56	Microcomputer Disk Operating Systems	3
CIS 70A	Networking Fundamentals	2.5
EL 53A	Introduction to Microprocessors	3
EL 53B	Advanced Microprocessors	2
TOTAL UNITS		37(38.5)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS: Complete 60 units to include (1) the Computer Servicing Technology Option (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.

Related Transfer Program: Industrial Technology – Electronics

See Cerritos College Graduation Requirements.

ENGINEERING TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR MOST COLLEGES OF ENGINEERING (CORE)		UNITS
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
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 or **www.ASSIST.ORG** for lower division major requirement for most California public universities.

BIOL 120	Introduction to Biological Science	4
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
BIOL 202	Molecular Biology/Genetics	4
CHEM 112	General Chemistry	5
CHEM 205	Quantitative Analysis Chemistry	4
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
CIS 178	Programming in Fortran	3
CIS 180	Programming in C/C++	3
CIS 182	JAVA Programming	3.5
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 112	Engineering Graphics	3
ENGR 123	Descriptive Geometry	3
ENGR 215	Engineering Electric Circuits	3
ENGR 235	Statics	3
ENGT 131	Fundamentals of design including Autocad	3
ENGT 138	Fundamentals of Computer Aided Drafting	4
GEOL 101	The Earth Environment	4
GEOL 110	Introduction to Geology	3
MATH 112	Statistics	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) ENGR 112 OR ENGT 131, (3) CIS 177 or 178 or 180 or 280, (4) 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 CERTIFICATES OF COMPLETION/ENGINEERING DESIGN TECHNOLOGY

MACHINE DESIGN AND MANUFACTURING		UNITS
ENGT 117	Geometrical Dimensioning and Tolerancing	2
ENGT 153	Machine Drawing and Design with AutoCAD	3
ENGT 237	Graphical Statics and Strength of Materials	3
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
ENGT 258	Design and Production Technology with AutoCad	4
		16 units

3-D PARAMETRIC MODELING AND PRESENTATIONS		UNITS
ENGT 153	Machine Drawing and Design with AutoCAD	3
ENGT 255	AutoCAD Rendering and Solid Modeling Applications	4
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
ENGT 257	Advanced Application of AutoCAD Mechanical Desktop	4
		15 units

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 and Design Using AutoCAD	4
ENGT 160	AutoCAD MAP	4
		15 units

AUTOCAD/INVENTOR APPLICATIONS WITH SHEET METAL LAYOUT

		UNITS
ENGT 117	Geometrical Dimensioning and Tolerancing	2
ENGT 133	Sheet Metal Layout and Applications	2
ENGT 138	Fundamentals of Computer Aided Drafting	4
ENGT 153	Machine Drawing and Design with AutoCAD	3
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
		15 units

ENGINEERING DESIGN AND PRODUCTION TECHNOLOGY

		UNITS
ENGT 133	Sheet Metal Layout and 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 units

ENGINEERING DESIGN TECHNOLOGY 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 and Applications with Inventor	2
ENGT 138	Fundamentals of Computer Aided Design with AutoCAD	4
ENGT 151	Advanced Applications of Computer Aided Drafting Using AutoCAD	4
ENGT 153	Machine Design with AutoCAD	3
ENGT 160	AutoDesk MAP	4
ENGT 237	Graphical Statics and Strength of Materials	3
ENGT 255	AutoDesk VIZ Rendering and Solid Modeling Applications	4
ENGT 256	Introduction to AutoCAD Mechanical Desktop	4
ENGT 257	AutoDesk Inventor	4
ENGT 259	Solidworks	4
TOTAL CERTIFICATE REQUIREMENT:		38

ENGINEERING DESIGN AND PRODUCTION TECHNOLOGY OPTION

Above courses required plus

ENGT 116	Blueprint Reading for Machine Trades	2
ENGT 131	Fundamentals of Design Including AutoCAD	2
ENGT 258	Design and Production Technology with AutoCAD	4
MTT 100	Modern Manufacturing Concepts and Techniques	2.5
TOTAL CERTIFICATE REQUIREMENT:		49.5

ENGINEERING DESIGN TECHNOLOGY

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: BA 107, BA 117, MATH 60, MFGT 51, MFGT 100, MET 100A, TM 50

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 TRANSFER PROGRAMS

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
ENGL 100	Freshman Composition	4
ENGL 102	Freshman Composition and Literature	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 the foreign language requirement with a counselor.

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University-Dominguez Hills

Select one course from the following:

ENGL 232	Readings 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

Option in Literature:

ENGL 246A	Survey of English Literature	3
ENGL 246B	Survey of English Literature	3
ENGL 230A	Introduction to American Literature	3
ENGL 230B	Introduction to American 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 – Berkeley

ENGL 246A	Survey of English Literature	3
ENGL 228	Shakespeare's Plays	3

University of California-Irvine

Complete 202 of Intermediate College Level Foreign Language. Select one from the following: FRENCH, GERMAN, JAPANESE or SPANISH
Complete one series from the following:

ENGL 230A	Introduction to American Literature	(3)
and ENGL 230	BIntroduction to American Literature	(3)
or ENGL 232	Readings in Poetry	(3)
and ENGL 233	Readings in the Novel	(3)
ENGL 235	Readings in the Drama	(3)
or ENGL 246A	Survey of English Literature	(3)
and ENGL 246B	Survey of English Literature	(3)

or ENGL 248A	Masterpieces of World Literature	(3)
and ENGL 248B	Masterpieces of World Literature	(3)

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 the Bible: Hebrew Scriptures	3
ENGL 221B	Literature in the Bible: Christian Scriptures	3
ENGL 225	Mexican Literature in Translation	3

University of California-Riverside

(Complete two courses from the following:)

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

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.

Please consult with www.assist.org frequently to obtain current information.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) ENGL 100 and ENGL 102 or ENGL 103; (2) 12 additional units in English courses 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 OPPORTUNITIES: English graduates are employed in a number of fields that require analytical communication skills: publications, communications, media, entertainment, creative writing, government, and business management. Graduate English majors also find English is excellent preparation for advanced studies as wide-ranging as law, theology, psychology, pre-med and business administration.

CREATIVE WRITING/SCREENWRITING CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIRMENTS:		**UNITS**
Choose 6 units from the following courses, each repeatable 2 times:		
ENGL 240	Creative Writing	3
ENGL 241	Screenwriting	3
or TH 241	Screenwriting	3
Choose (6) units from the following:		
ENGL 227	Readings in Current Literature	3
ENGL 228	Shakespeare's Plays	3
ENGL 232	Readings in Poetry	3
ENGL 233	Reading in the Novel	3
ENGL 234	Reading in Short fiction	3
ENGL 235	Reading in the Drama	3
TOTAL CERTIFICATE REQUIRMENTS:		12

All course work required for the certificate must be completed with a minimum grade of "C."

FAMILY AND CONSUMER SCIENCE CAREER PATHWAY
(FORMERLY HOME ECONOMICS)

(The following does not lead to an Associate in Arts Degree)

CSU, Long Beach offers the Bachelor of Arts degree in Family Consumer Sciences

OPTIONS:

Family Studies
Communication
Consumer Affairs
Fashion Merchandising
Textiles and Clothing

A Bachelor of Science in Dietetics and Food Administration is offered by the Department of Family and Consumer Sciences.

Each option requires specific courses. Students are urged to see a Cerritos College counselor for accurate and complete lower division preparation.

LOWER DIVISION REQUIREMENTS

California State University– Long Beach		**UNITS**
Child Development & Family Studies Option		
A&P 120	Introduction to Human Anatomy and Physiology	4
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3
or ANTH 100	Cultural Anthropology	(3)
CD 110	Child Development	3
HO 152	Normal & Therapeutic Nutrition	3
CDIT 151	Infant and Toddler Development	3
and CDIT 152	Infant and Toddler Programs	3
Communication Option		
CHEM 100	Introductory Chemistry	4
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
ENGL 100	Freshman Composition	4
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3
or ANTH 100	Cultural Anthropology	(3)
SPCH 100	Fundamentals of Oral Communication	3
or SPCH 120	Fundamental of Interpersonal Communication	(3)
CD 110	Child Development	3
HO 152	Normal & Therapeutic Nutrition	3
CA 101	Introduction to Food Service, Safety and Sanitation	1
Consumer Affairs Option		
BUSA 101	Fundamentals of Accounting I	4
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3
MATH 112	Elementary Statistics	4
or PSYC 210	Elementary Statistics	(4)

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 241	Western Civilization	3
or ART 101	Appreciation and History	(3)
CIS 101	Introduction to Computer Information	3
PSYC 101	General Introductory Psychology	3
SOC 101	Introductory Sociology Principles	3
or SOC 201	Social Problems	(3)
or ANTH 100	Cultural Anthropology	(3)
ART 186	Computer Graphics in Art & Design	3

These must be completed with a "C" or better

Textiles and Clothing Option

CHEM 100	Introductory Chemistry	4
or CHEM 111	General Chemistry	(5)
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
HIST 241	Western Civilization	3
or ART 101	Appreciation and History	(3)
SOC 101	Introductory Sociology	3
or SOC 201	Social Problems	(3)
or ANTH 100	Cultural Anthropology	(3)
ART 186	Computer Graphics in Art & Design	3

Bachelor of Science in Dietetics and Food Administration at CSULB

A&P 151	Introduction to Human Physiology	4
or A&P 201	Human Physiology	(5)
CA 101	Introduction to Food Service, Safety & Sanitation	1
CHEM 111	General Chemistry	5
CIS 101	Introduction to Computer Information Systems	3
ENGL 100	Freshman Composition	4
MICRO 200	Principles and Applications of Microbiology	5
PSYC 101	General Introduction Psychology	3
SOC 101	Introductory Sociology Principles	3
SPCH 100	Fundamentals of Oral Communication	3
or SPCH 120	Fundamental of Interpersonal Communication	(3)
HO 152	Normal and Therapeutic Nutrition	3

FORESTRY
TRANSFER PROGRAM

California State University – Humboldt

		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	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)

Forestry Hydrology Option:

GEOL 101	The Earth Environment	4
PHYS 101	General Physics	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

University of California – Berkeley

BIOL 200	Principles of Biology	5
CHEM 111	General Chemistry	5
CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
ENGL 100	Freshman Composition	4
ENGL 102	Freshman Composition and Literature	3
ENGL 246A	Survey of English Literature	3
or ENGL 246B	Survey of English Literature	3
GEOL 101	The Earth Environment	4
MATH 112	Elementary Statistics	4
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	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
TRANSFER PROGRAM

California State University – Fullerton

		UNITS
FREN 101	Elementary French	5
FREN 102	Elementary French	5
FREN 201	Intermediate French	5
FREN 02	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

Students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CSULA as the prerequisite for their writing proficiency requirement.

California State University – Long Beach

FREN 101	Elementary French	5
FREN 102	Elementary French	5
FREN 281	Beginning Conversational French	3

Students who have completed sufficient high school French may take upper-division courses as soon as lower-division requirements have been met.

Two years of a second foreign language at the college level or equivalent is also required.

Departmental Recommendation: Students specializing in French are recommended to include the following courses in their program of study: HIST 241 and HIST 242.

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 www.assist.org. 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). Transfer students who have taken a college-level language course cannot take the placement exam and should consult with their advisors. No college-level credit may be duplicated.

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 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 – Long Beach

GEOG 105	World Regional Geography	3

California State University – Los Angeles

GEOG 106	Introduction to Geographic Information Systems	3
ENGL 103*	Critical and Argumentative Writing	3

*Students transferring to CSULA should plan to take ENGL 103 as their Critical Thinking requirement. Although it is not a major requirement, it meets the prerequisite for a university graduation requirement.

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 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND THE UNIVERSITY OF CALIFORNIA		UNITS
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
GEOL 101	The Earth Environment	4

ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills

GEOL 201	Earth History	4
PHYS 101	General Physics	4
and PHYS 102	General Physics	4
or PHYS 201	Engineering Physics	(4)
and PHYS 202	Engineering Physics	(4)
and PHYS 203	Engineering Physics	(4)
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)
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

or, with consent of CSUF advisor:
Phys 101 and Phys 102

One additional semester course (with approval of CSUF advisor):

BIOL 201	Principles of Biology	5
A&P 120	Introduction to Human Anatomy and Physiology	4
CIS 230	Assembly Programming for Microcomputers	4
MATH 220	Analytical Geometry and Calculus III	4
MATH 240	Calculus and Differential Equations	4
PHYS 203	Engineering Physics	4

California State University – Long Beach

BIOL 120	Introduction to Biological Science	4
GEOL 201	Earth History	4
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

*Consult Counselor for additional required courses for Earth Science option.

California State University – Los Angeles

BIOL 120	Introduction to Biological Science	4
GEOL 201	Earth History	4
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

Recommended course for the various emphases:

MATH 220	Analytic Geometry and Calculus III	4

*Consult with a counselor for additional required courses for the Earth Science option.

California State University Polytechnic – Pomona

GEOL 201	Earth History	4
MATH 112	Elementary Statistics	4
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

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
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

University of California – Riverside

BIOL 201	Principles of Biology	5
GEOL 201	Earth History	4
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

All courses that are prerequisites to the major must be completed with a "C" or better.

For more Geology options please consult with a counselor.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) a combination of geology and other science 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 TRANSFER PROGRAM

California State University – Fullerton

		UNITS
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

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 www.assist.org. 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

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
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
HIST 102	Political & Social History of the United States: 1500's to 1876	3
HIST 103	Political & Social History of the United States: 1877 to Present	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 102 and 103 are not required.

California State University – Fullerton

HIST 102	Political and Social History of the United States: 1500's to 1876	3
and HIST 103	Political and Social History of the United States: 1877 to Present	3
or HIST 102	Political and Social History of the United States: 1500's to 1876	3
and HIST 101	American History and Constitution	3
HIST 245	World Civilization from Antiquity to 1500	3

California State University – Los Angeles

ENGL 103	Critical and Argumentative Writing	3
HIST 102	Political and Social History of the United States: 1500's to 1876	3
and HIST 103	Political and Social History of the United States: 1877 to Present	3
HIST 245	World Civilization from Antiquity to 1500	3
and HIST 246	World Civilization from 1500 to Present	3

History majors are urged to develop competence in at least one foreign language.

California State University – Long Beach

HIST 102	Political and Social History of the United States: 1500's to 1876	3
HIST 103	Political and Social History of the United States: 1877 to Present	3
HIST 241	Western Civilization	3
HIST 242	Western Civilization	3
HIST 245	World Civilization from Antiquity to 1500	3
HIST 246	World Civilization from 1500 to Present	3

University of California – Irvine

HIST 102	Political and Social History of the United States: 1500's to 1876	3
and HIST 103	Political and Social History of the United States: 1877 to Present	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
PHIL 100	Introduction to Philosophy	3
or PHIL 102	Introduction to Ethics	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.

One History course selected from HIST 241, 242, 245 or 246.

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 102	Political and Social History of the United States: 1500's to 1876	3
HIST 103	Political and Social History of the United States: 1877 to Present	3
or HIST 210	History of the United States in the Post World War II Era	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 and 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
and 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.

INDUSTRIAL ARTS EDUCATION
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
ENGT 257	Autodesk Inventor	4
ENGT 258	Design and Production Technology with AutoCad	4
MTT 100	Machine Tool Introduction	2.5
or WELD 100	Welding Fundamentals	(2)

PHOT 100	Introductory Photography	3
WMT 101	Introduction to Woodworking	2

California State University-Los Angeles Requirement:

ENG 103	Critical and Argumentative Writing	3

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.

CSULA offers a B.S. in Industrial Technology with a choice of two options: Aviation Management or Production Technology. See counseling for more information.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include, (1) Select 18 units from the common lower division preparation, (2) 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 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY (ENGINEERING TECHNOLOGY)

		UNITS
ARCH 111	Architectural Drafting	3
ENGT 131	Fundamentals of Drafting Including AutoCAD	3
ECON 201	Principles of Macroeconomics	3
MATH 150	Pre-Calculus Mathematics	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
MATH 170	Calculus I	4

California State Polytechnic University – Pomona

ARCH 121	Materials and Methods of Building Construction	3
CHEM 111	General Chemistry	5
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: Construction Engineering Technology (CET) graduates work with owners, developers, architects, engineers, (civil, mechanical, and electrical), building departments, governmental agencies, contractors, and subcontractors to implement a variety of construction projects. Job titles include field engineer, project engineer, superintendent, as well as estimator, scheduler, and project manager.

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

INDUSTRIAL TECHNOLOGY-ELECTRONICS OPTION 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 150	Precalculus Mathematics	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 280	Object-Orientated Programming in C++	3
EL 200	Semi-Conductor Circuits	3
EL 200L	Semi-Conductor Circuits	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: The Electronics Option prepares the student for a position as a technologist, in such industries as aerospace, computers, communications, biomedical, chemical, power, etc. Students are offered a wide range of training in topics such as instrumentation, controls, microprocessors, microelectronics, biomedical electronics,

communications, motors and generators, robotics, computer applications, programming and interfacing.

The Computer Option prepares graduates to pursue careers related to manufacturing, integration, and support of computer systems. Emphasis is placed on specific job skills required of entry level professionals in computer industry, including systems analysis and design, data administration, networking, data communications, data acquisition, oral and written communication, and management principles. The Computer Option is available to students interested in the manufacturing of computers and the applications and operations aspects of computer hardware and software.

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

INDUSTRIAL TECHNOLOGY – MANUFACTURING OPTION 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 150	Pre-Calculus Mathematics	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 (ENVIRONMENTAL/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: Graduates of the program will be employed in the manufacturing engineering, production, production control, procurement and materials management departments of both large and small companies in all areas of the manufacturing industry.

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

INDUSTRIAL TECHNOLOGY— QUALITY ASSURANCE CAREER PATHWAY

(The following curriculum does 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
BL 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 150	Pre-Calculus Mathematics	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: Graduates of the program will find jobs in quality engineering, quality assurance, product assurance, supplier assurance, configuration and data management, procurement, software quality assurance, production, operations, materials management, and industrial engineering departments of both large and small companies in all areas of the manufacturing industry and service industry.

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

INDUSTRIAL TECHNOLOGY– AUTOMATED MANUFACTURING 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 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 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.

INTERPRETING/TRANSLATING 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 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
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

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 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.

This certificate is one part of a two-part certificate combination that prepares the student for an associate degree in Broadcast Media. (See Certificate Radio-TV Announcing)

Broadcast Journalism Certificate Requirements--11

JOUR 100	Mass Media and Society	3
JOUR 101	Beginning Newswriting and Reporting	3
JOUR 112	Copy Editing Skills	1
JOUR 170	Broadcast News	1
Plus three 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
TOTAL		11

**May be taken a maximum of 2 times may be applied.*

RADIO/TELEVISION BROADCAST ANNOUNCING CERTIFICATE OF COMPLETION

This certificate helps the student focus on the study of and preparation for entry level employment in the field of broadcast announcing at radio and television stations, and in online broadcast ventures. This is one of two certificate combination that will begin to prepare the student for an associate degree in Broadcast Media Broadcast Media. (See JOUR 141 – Broadcast Journalism)

JOUR 170	Broadcast News	1
RTV 152	Introduction to Broadcasting	3
RTV 155	Radio Production	3
or RTV 171	Occupational Work experience in Radio-TV*	1
RTV 298	Directed Studies in Radio-TV *	(1)
SPCH 140	Oral Interpretation of Literature	3
SPCH 271	Voice and Articulation	3
TH 156	Video Production	3
TOTAL		17

**Should be a broadcasting-related internship*

ONLINE JOURNALISM 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 CERTICATE 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 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 ELECTIVE (1 UNIT MINIMUM)

PHOT 110	Digital Imaging	3
or ART 192	Photoshop/Digital Imaging	3
RTV 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 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

Broadcast Journalism Concentration, Communications Major

TH 241	Writing for Movies and Television	3

Other Communication major concentrations are: Advertising; Entertainment Studies; Photo-Communications; Public Relations.

Please note that double counting of Journalism courses for general education is not permitted.

California State University – Long Beach

Note: All students entering journalism production classes at CSULB must be familiar with at least one established word-processing program, and be able to type at a rate of at least 40 words a minute.

California Polytechnic University, Pomona
Communication Journalism

JOUR 130	Photo Journalism	3
ART 188	Design for Desktop Publishing	3
PHOT 100	Introductory Photography	3

Note: Pomona does not require Journalism 101 for the Journalism major.

San Diego State University

ECON 201	Principles of Macroeconomics	3
POL 101	American Political Institutions	3
POL 201	Introduction to Political Science and American Government	3

Note: All prerequisites must be taken for a grade and completed with a minimum GPA of 2.85. Journalism is an impacted major and will require a personal statement, letters of recommendation and a cumulative GPA of 2.75 or higher. For additional information see a counselor.

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)

LIBERAL ARTS AND SCIENCES

In order to qualify for an A.A. degree in Liberal Arts and Sciences, 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 minimum including at least one course from category a, b, c, and d, below;
4. Additional units to complete the 18 units minimum must be selected from categories a, b, c, d, or e;
5. Courses counted toward the major may not be counted again for A.A. general education credit.
   a. **Communication and Analytical Thinking (one course is required)**
      English 103
      Philosophy 106, 202
      Psychology 103
      Speech 100, 120, 130, 132, 150, 235
   b. **Fine Arts and Humanities (one course is required)**
      Architecture 112
      Art 101,100, 102, 103, 104, 106, ART 107,110, 116, 108, 109, 120, 130A, 144, 150, 193
      English 102, 106, 221A, 221B, 222, 223, 224, 225, 226, 227, 228, 230A, 230B, 232, 233, 234, 235, 236, 237, 245, 246A, 246B, 248A, 248B
      French 101, 102, 201, 202
      German 102, 201, 202, 101
      History 101, *110, *120, *201, *202, *210+, *220, *221, *230, *235, *241, *242, *245, *246, *250, *History 255, *260, *265
      Humanities 100, 108, 109
      Japanese 101, 102, 201, 202
      Music 100, 101, 102, 104, 104B, 105
      Photography 100, 160
      Philosophy 100, 102, 104, 200, 201, 204, 206
      Physical Education 191
      Sign Language 101, 102, 201
      Spanish 101, 102+, 111, 112+, 201, 202, 206, 210
      Speech 140
      Theatre 101, 102, 103, 104, 150, 151, 159, RTV 152
      Women's Studies 102
   c. **Social Sciences (one course is required)**
      Administration of Justice 101
      Anthropology 100, 120, 170, 200, 203, 204
      Economics 101+, 102, 201, 202+, 204
      Geography 102, 105
      History *101 *110, *120, *201, 202, 204, *210+, *220, *221, *230, *235, *241, *242, *245, *246, *250, * 255, *260, *265
      Journalism 100
      Political Science 101, 110, 201, 210, 220, 230
      Psychology 101, 150, 251, 261, 271
      Sociology 101, 120, 201, 210, 215
      Speech 110
      Sociology 230
      Women's Studies 101, 204
   d. **Science and Mathematics (one course is required)**
      Anatomy and Physiology 120+, 130+, 150+, 151+, 200+, 201+
      Anthropology 115
      Astronomy 101, 102+, 103+, 104, 105L, 106
      Biology 105, 110, 115, 120+, 200+, 201+
      Botany 120+
      Chemistry 100+, 110+, 111, 112
      Earth Science 101, 101L, 104, 101+, 106, 110
      Energy 110
      Geography 101, 101L
      Geology 101+, 110+, 201, 204, 207, 209
      Math 100, 110A, 110B, 112, 114, 115, 116, 140, 150, 170, 190, 220, 240
      Microbiology 200
      Physical Science 100+, 112
      Physics 100+, 101+, 102+, 201+, 202+, 203
      Psychology 210, 241
      Zoology 120
   e. **Self Development – optional**
      Counseling and Guidance 200
      Health Education 100, 101
      Physical Education 141
      Psychology 150
      Sociology 110, 120

*Course offered in more than one section, but may only be taken and counted in one section.

+ Credit Limitation. UC credit limitation 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.

MACHINE TOOL TECHNOLOGY CERTIFICATE OF ACHIEVEMENT

MACHINIST OPTION		UNITS
MTT 50	CNC Shop Math	3
MTT 52	Setup and Operation of CNC Mills	3
MTT 53L	Machinist Laboratory	1
MTT 54	Blueprint Reading	2.5
MTT 55	Supplemental Machine Shop Studies	2
MTT 56	CNC Shop Inspection	2.5
MTT 57	Setup and Operation of CNC Lathes	3

MTT 60	Advanced Mac hine Tool Concepts	2.5
MTT 62	Fixture Tooling	2.5
MTT 100	Machine Tool Introduction	2.5
TOTAL UNITS (INCLUDING CORE)		24.5

NUMERICAL CONTROL MACHINE OPERATOR OPTION

MTT 1L	Numerical Control Specialty	3
MTT 50	CNC Shop Math	3
MTT 52	Setup and Operation of CNC Mills	3
MTT 54	Blueprint Reading	2.5
MTT 56	CNC Shop Inspection	2.5
MTT 57	Setup and Operation of CNC Lathes	3
MTT 100	Machine Tool Introduction	2.5
MTT 154	CNC Program Optimization	2
MTT 170	Computer Numerical Control Programming	2.5
TOTAL UNITS (INCLUDING CORE)		24

NUMERICAL CONTROL TOOL PROGRAMMER OPTION

MTT 50	CNC Shop Math	3
MTT 52	Setup and Operation of CNC Mills	3
MTT 54	Blueprint Reading	2.5
MTT 56	CNC Shop Inspection	2.5
MTT 57	Setup and Operation of CNC Lathes	3
MTT 100	Machine Tool Instruction	2.5
MTT 154	CNC Program Optimization	2
MTT 76	CAD/CAM Virtual Gibbs	2.5
and MTT 177	Advanced GibbsCAM/CAD/CAM	2.5
and MTT 1L	Numerical Control Specialty	3
or MTT 51	CAD/CAM Introduction	(3.5)
and MTT 278	CAD/CAM Advanced	(3.5)
and MTT 1L	Numerical Control Specialty	(2)
TOAL UNITS (INCLUDING CORE)		26.5 (27.5)

TOOL AND DIE MAKER OPTION

MTT 50	CNC Shop Math	3
MTT 53L	Machinist Laboratory	1
MTT 54	Blueprint Reading	2.5
MTT 55	Supplemental Machine Shop Studies	2
MTT 56	CNC Shop Inspection	2.5
MTT 60	Advanced Machine Tool Concepts	2.5
MTT 62	Fixture Tooling	2.5
MTT 80	CAD/CAM Mold Machining	2.5
MTT 100	Machine Tool Introduction	2.5
ENGL 131	Fundamentals of Drafting Including AutoCad	3
WELD 100	Welding Fundamentals	2
TOTAL UNITS		26.0

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above requirements for a Certificate of Achievement, (2) two courses form the following: MTT 70, MTT 71, PMT 65, ENGT 138; (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
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION

FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA		UNITS
MATH 150	PreCalculus 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	3
PHS 203	Engineering Physics	3

MATH EDUCATION OPTION

MATH 112	Elementary Statistics	4
CIS 171	Visual Basic programming	3

California State University - Fullerton

CIS 178	Programming in Fortran	3
MATH 240	Calculus and Differential Equations	4

See a counselor for major concentrations. The coursework for a concentration is all upper division. Each student is required to complete one of the following concentrations: Pure Mathematics, Applied Mathematics, Probability & Statistics or Teaching Mathematics.

Each student is also required to select one of the following cognates: Actuarial, Computer Science, Economics, Information Systems & Decision Science, Physics, Chemistry, Civil Engineering, Mathematics, or Research.

COMPUTER SCIENCE COGNATE

CIS 176	Cobol Programming	3
CIS 214	UNIX	3
CIS 224	Advanced Cobol Programming	3
CIS 280	Object-Oriented programming in C++	3
CIS 292	Data Structures	3.5

ECONOMICS COGNATE

ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3

PHYSICS/ENGINEERING COGNATE

PHYS 201	Engineering Physics	3
PHYS 02	Engineering Physics	3
PHS 203	Engineering Physics	3

CHEMISTRY COGNATE

CHEM 111	General Chemistry	5
CHEM 12	General Chemistry	5

CIVIL ENGINEERING COGNATE

ENGR 235	Statics	3

California State University - Long Beach

CIS 280	Object-Orientated Programming in C++	3
PHYS 201	Engineering Physics	4

APPLIED MATHEMATICS OPTION

The above listed requirements and PHYS 202

STATISTICS OPTION

One of the following sequences is required:

ECON 201 and ECON 202 **or** BIOL 120 and A&P 120 or six units in a field other than ECON **or** BIOL in which CSULB approved upper division statistics courses are also taken.

MATHEMATICS EDUCATION OPTION

One of the following sequences is required:

PHYS 201 and PHYS 202 **or** PHIL 106 and lower division Symbolic Logic

(PHIL 270 at CSULB) or eight units of a foreign language.

California State University - Los Angeles

MATH 240	Calculus and Differential Equations	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

Beside the B.S. in Mathematics, CSULA also offers the B.A. in Mathematics which requires a minimum of 4 units from a list of additional electives in related areas: CHEM 111, 112, CIS 101, MATH 240, and PHIL 106. Required university general education course: ENGL 103 for B.A. or B.S. degree.

NOTE: CSULA students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CSULA as the prerequisite for their writing proficiency requirement.

California State Polytechnic University - Pomona

CIS 178	Programming in Fortran	3
or CIS 180	Programming in C/C++	(3)
MATH 240	Calculus and Differential Equations	4
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4

Major concentrations in Applied Mathematics, Secondary Teacher Prep, or Statistics require the same lower division preparation.

University of California – Irvine

CIS 180	Programming in C/C++	3
or CIS 178	Programming in Fortran	(3)
or CIS 280	Object-Oriented Programming in C++	(5)
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)
or PHYS 201	Engineering Physics	(4)
and PHYS 202	Engineering Physics	(4)
and PHYS 203	Engineering Physics	(4)
MATH 240	Calculus and Differential Equations	(4)

At the upper-division level, students may specialize in Applied and Computational Mathematics, Mathematics for High School Teaching, Statistics, or a concentration in Economics is also offered.

University of California - Los Angeles

CIS 280	Object-Orientated Programming in C++	3
MATH 240	Calculus and Differential Equations	4

The two above listed courses fulfill the lower division requirements for the B.A. in Mathematics.

MATHEMATICS/B.S. OPTION

PHYS 201	Engineering Physics	4
	TWO ADDITIONAL COURSES FROM:	
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
PHYS 202	Engineering Physics	(4)
PHYS 203	Engineering Physics	(4)
BIOL 200	Principles of Biology	(5)

MATHEMATICS OF COMPUTATION/B.S. OPTION

PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
CIS 280	Object-Oriented Programming in C++	3
PHYS 203	Engineering Physics	4
or CHEM 111	General Chemistry	(5)
or CHEM 112	General Chemistry	(5)

MATHEMATICS/APPLIED SCIENCE/B.S. OPTION

Actuarial Concentration or Operations Research Plan:

MATH 240	Calculus and differential equations	4
CIS 280	Object-Oriented Programming in C++	3
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3

Medical and Life Sciences Concentration Plan:

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

There are also concentrations plans in the following: Management Accounting and History of Science.

MATHEMATICS/ECONOMICS/B.S. OPTION

CIS 280	Object-Oriented Programming in c++	3
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
MATH 240	Calculus and Differential Equations	4

University of California – Riverside

CIS 180	Programming in C/C++	3
MATH 240	Calculus and Differential Equations	4

B.S. IN COMPUTATIONAL MATH TRACK

CIS 280	Object-Oriented Programming in C++	3
CIS 292	Data Structures	3
B.S. in Applied Math Track, Biology Option		
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5

B.S. IN APPLIED MATH TRACK, CHEMISTRY OPTION

CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4

B.S. IN APPLIED MATH TRACK, ECONOMICS OPTION

ECON 202	Principles of Microeconomics	3

B.S. IN APPLIED MATH TRACK, ENVIRONMENTAL SCIENCE OPTION

CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
GEOL 101	The Earth Environment	4

The Applied Math Track, Physics Option and the Applied Math Track, Statistics Option and the Blended Program for Secondary Education do not have any additional lower division course requirements.

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 website.

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: Upon completion of the bachelor's degree program, graduates qualify for graduate study in accounting, computer information systems, engineering, physics, economics and other related fields. Baccalaureate graduates also qualify for positions as an actuary and statisticians, appraisers, and estimators, financial analysts, financial planners, loan officers, marketing researchers, methods analyst, operations analyst, mathematicians in government and industry, secondary teaching and career opportunities in computer science.

MEDICAL ASSISTANT

Length and Kind of Program

Several options are available to those interested in working in the Ambulatory Care environment:

1. Medical Assistant Certificate of Achievement
   This Medical Assistant program may be completed in two semesters when started with the fall semester. The focus is on both front office (administrative) and back office (clinical) responsibilities. The medical assistant program culminates in a clinical lab experience completed through an internship or occupational work experience.
2. Medical Assistant Associate in Arts Degree
   The student must complete the requirements for a Certificate of Achievement in Medical Assisting. In addition, the student must take A&P 120, electives, and general education requirements to achieve a minimum of 60 units. The length of time to complete this depends on the student's curriculum load.

Full time students can complete this program in two semesters (8 months) when starting with the fall semester. Discussion with the department chair regarding questions on course selection is encouraged. Course selection for a full time student starting in the fall semester is recommended as follows:

FALL:MA 60, MA 62A, MA 62B, MA 64, MA 161, HO 53, HO 54, HO 55, HO 150 (elective).

SPRING: MA 66, MA 67, MA 68 or MA 73 or MA 74, Either HO 151 or HO 152 OR SPAN 223 (if chosen elective), PSYC 101 or PSYC 150, or equivalent.

Full time students starting in the Spring semester are advised to consult with the program chairperson regarding course selection(s).

The program is designed to help meet the needs of the part-time student as well. Course selection in numeral order is advised. Again, consult with the program chair regarding specific course selection questions. Some classes are offered in specific semesters and efficient planning is necessary.

PROGRAM REQUIREMENTS

Academic Requirement

The student may obtain a Certificate of Achievement or an Associate in Arts in Medical Assisting. The student must achieve a grade of "C" or better in required medical assisting and general education course work. (Twelve units of the Medical Assistant 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 higher.

Expenses

A. See the college catalog for enrollment fees
B. The student may expect to spend approximately $600 for books, equipment (including watch with a second hand), and uniforms. Health screening will be at the student's expense. This may include but is not limited to immunizations and CPR/First Aid certification completed at private agencies. Students are responsible for their own living accommodations, uniform laundry, and transportation to selected clinics.

Health

Employment in this field requires good vision, hearing, and the ability to communicate verbally, nonverbally and through written word. In addition, students must have the ability to comprehend, analyze, and evaluate patients' charts in order to provide appropriate treatment. Students must be able to record in the patients' charts and have the manual 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

Health clearance requirements will vary depending on where clinical lab experiences will be completed (MA 68, MA 73, MA 74). 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 compliance with facility health standards and current certification in CPR and First Aid training. The health standards will include, but are not limited to, T.B. testing and immunization. The Medical Assistant Program Record of Immunizations, Vaccination, and Test forms (located in HS room 106) must be completed before the first class session and prior to placement in the health care facility. Health clearance, CPR and First Aid requirements must be valid for the duration of the clinical affiliation. Student placements are predominately during the day hours.

CPR certification is also required for HO 53. It may be obtained through American Health Association (Health Care Provider) training (industry preferred). American Red Cross Professional/AED training or concurrent enrollment in HO 150 (fall semester only). Standard First Aid training is available through the American Red Cross.

CRIMINAL BACKGROUND CHECKS

Clearance of a criminal background check may be required prior to internship/work experience placement. Students who do not clear agency requirements are not eligible for clinical placement and will, consequently, be ineligible to continue in the course. If there is any concern regarding clearance of a criminal background check, please contact the Health Occupations Division for additional information.

MEDICAL ASSISTANT CERTIFICATE OF ACHIEVEMENT

		UNITS
MEDICAL ASSISTING		
MA 60	Introduction to Medical Assisting	2
MA 62A	Health Insurance and Billing	1.5
MA 62B	ICD-9 and CPT Coding	1.5
MA 64	Medical Office Assisting	1.5
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
PSYCHOLOGY		
PSYC 101	General Introductory Psychology	3
or PSYC 150	Personal and Social Adjustment	(3)
ELECTIVES (Choose only one of the following):		
HO 150	Professional/CPR and First Aid (Fall semester only)	3
or SPAN 223	Spanish for Health and Medical Careers (Or an equivalent)	3
or HO 151	Elements of Nutrition	2
or HO 152	Nutrition	(3)
TOTAL CERTIFICATE REQUIREMENTS		(29)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 not currently employed in a medical office should enroll in MA 68. Students who are currently employed in a medical office up to 19 hours per week enroll in MA 73. Students who are currently employed in a medical office more than 20 hours per week enroll in MA 74.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

For an Associate in Arts degree a student must meet the requirements for a Certificate of Achievement in Medical Assisting. The 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 as a medical assistant in a variety of settings: office clinic, hospitals, insurance companies, government agencies, pharmaceutical companies, and educational institutions. Job duties can entail front office (administrative) duties such as receptionist and insurance clerk to back office (clinical) duties such as assisting the provider of care of lab duties.

See Cerritos College Graduation Requirements.

MENTAL HEALTH WORKER CERTIFICATE OF ACHIEVEMENT PROGRAM

MENTAL HEALTH WORKER CORE COURSES		UNITS
INST 151	Principles of Recovery and Psychosocial Rehabilitation	3
INST 152	Helping Relationships	3
PSYC 101	General Introductory Psychology	3
PSYC 271	Abnormal Psychology	3
PSYC 272	Special Populations	3
PSYC 273	Mental Health Worker Field Experience	3
TOTAL CERTIFICATE REQUIREMENTS		18

RECOMMENDED COURSES

PSYC 103	Critical Thinking in Psychology	3
PSYC 150	Personal and Social Adjustment	3
PSYC 210	Elementary Statistics	3
PSYC 220	Research Methods	4
PSYC 241	Psychobiology	3
PSYC 245	Drugs and Behavior	3
PSYC 251	Developmental Psychology	3
PSYC 261	Social Psychology	3

ASSOCIATES IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 units must be completed to include: the core courses listed above, AA Degree general requirements, and at least six units of recommended courses.

NOTE: Although all of these courses are transferable to transfer as a Psychology Major refer to Psychology Transfer Program.

CAREER OPPORTUNITIES: The certificate and Associate in Arts degree with an emphasis on the Psychosocial Rehabilitation model are designed to qualify the graduate to enter the workforce as a paraprofessional in Community-Based Mental Health Programs. The graduates of these programs will be able to work with mentally ill individuals. In partnership with the individual and other paraprofessionals and professionals, the graduate will create a plan for the client to take care of finances, find employment and housing, use community resources, and possible help with participation in substance-abuse programs.

METALLURGY AND MATERIALS SCIENCE 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	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 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	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)
and PHYS 102	General Physics	(4)
or PHYS 201	Engineering Physics	(4)
and PHYS 202	Engineering Physics	4
and PHYS 203	Engineering Physics	4

California State University – Long Beach (Option with the Biology major)

MICRO 200	Principles and Applications of Microbiology	5
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

NOTE: CSULA student are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CSULA as the prerequisite for their writing proficiency requirement.

California State Polytechnic University – Pomona (Microbiology Option or Medical Technology Option)

MICRO 200	Principles and Applications of Microbiology	5
A&P 201	Human Physiology (Required for Medical Technology Option Only)	5
CHEM 205	Quantitative Analysis Chemistry	4
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
PHYS 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PHYS 203	Engineering Physics	4
MATH 170	Analytic Geometry and Calculus I	4
MATH 190	Analytic Geometry and Calculus II	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 CERTIFICATE OF COMPLETION

The two-level Certificate 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 Certificate 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 Certificate 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 Certificate 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
CERTIFICATE 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
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
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

* Corequisite 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
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.

Portfolio and/or auditions may be required for entrance into music major. See counselor or university catalog for more information.

		UNITS
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, and 140. French 101.

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Fullerton

In addition to the common lower division transfer music major preparation listed above, allied requirements state a proficiency in foreign language French, Italian, or German (preferred) to be satisfied by one of the following:

a) 4 years study of foreign language in High School
b) Passing an exam given by the foreign language department
c) Completing the second semester of the beginning college sequence (French 102 or German 102)

California State University – Long Beach

All entering transfer students are required to take a theory placement test, complete a performance audition which are regularly administered during the fall and spring semester and pass a piano proficiency examination regardless of performance area (piano majors excepted)

University of California – Irvine

It is recommended that transfer students enter the major with college-level private instrumental or voice instruction; two years of music theory; the history of western music; ear-training; sight-singing; sight-reading; and piano. All transfer students must pass a performance audition in order to declare a major in either the B.A. or B.Mus. degree program.

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. All applicants for admission are required to pass an audition in their principal performing medium.

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 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, approved by the Board of Registered Nursing and accredited by the National League for Nursing Accrediting Commission, Inc., 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 Nursing education is driven by the application of critical thinking and development/improvement of teaching/learning strategies using innovative approaches and evidenced based research. Nursing faculty also believe that the purpose of education is to enlighten and enhance the quality of life for the student, the community and clients for who students and graduates provided 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 to 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 courses must be completed with grades of "C" or higher during semester of application to maintain eligibility to enter program.
4. 2.5 gpa in prerequisite courses: A&P 150, A&P 151, MICR 200, and ENGL 100. A&P 150, A&P 151, and MICRO 200 are recommended to be completed within six (6) years of admission.
5. Overall minimum of 2.0 Grade Point Average for all college work.

PROGRAM PREREQUISITES

Option A: A&P 150, A&P 151, MICR 200, and ENGL 100

Option B: Same as Option A plus NRSG 25, NRSG 211, NRSG 213A, NRSG 251, PSYC 251, and possession of a valid California LPT license

Option C: Same as Option A plus NRSG 26, NRSG 215, NRSG251, PSYC 251, pass a departmental math competency exam, and possession of a valid California LVN license and at least one (1) year of acute care experience in a skilled nursing or hospital based facility

Option D: A&P 151, MICR 200, NRSG 215, pass a departmental math competency exam, and possession of a valid California LVN license

Option E: Same as Option A plus NRSG 25 or NRSG 26, NRSG 200, NRSG 215, NRSG 251, and PSYC 251

Option F: NRSG 26 and NRSG 215. Applicants must meet with the Director of Nursing and submit valid letter of referral from the California Board of Registered Nursing

All applicants must complete the prerequisites listed above or equivalents with grades of Credit or "C" orhigher.

Option A, B, C, and E applicants must show successful completion of READ 54, ENGL 52, and MATH 60 equivalents with grades of Credit or "C" or higher or satisfactory completion of the college placement testprocess. Option D applicants are required to complete the placement test process for advisement purposes but are not required to complete these courses.

Option D, E, and F applications will be notified individually for additional requirements relative to their entry point in the program

For more information on updated program, prerequisites, please call the Health Occupations Division (562) 860-2451, ext 2550.

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 application for admission.

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 the Nursing Department upon admission to the Nursing program you must submit official copies of all transcripts to the admissions and records office.

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, 11110 Alondra Blvd., 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. Sealed official copies of transcripts are required in order to complete the application process. Transcripts maybe 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. Applicants can have no more than two (2) prerequisite courses in progress. It is the applicant's responsibility to make sure that all materials are submitted by the deadline.

Selection criteria are being updated and can be obtained from the Health Occupations Division Office and Counseling.

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 selection process.
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 have prerequisite course(s) in progress at the time of application, must submit proof of passing the course(s) with a grade of "C" or higher prior to admission.
7. All eligible students who apply prior to the October 1, 2006 deadline will be admitted by the lottery/wait list process. Students who apply after the October 1, 2006 deadline will be admitted by selection criteria that is being updated and can be obtained from the Health Occupations Division and Counseling.
8. 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 $26 for California residents, $151 for non-residents of California and $177 for international students. A College Services ID fee ($10) and Health Services Fee ($13) are assessed each semester.

During the four core semesters, lab material fees total approximately $400, 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 $330 to $370.

Information about costs of NLNAC-accredited nursing programs is available from the National League for Nursing Accrediting Commission, Inc., 61 Broadway, 33rd floor, New York, NY 10006; telephone (800) 669-1656, ext 153 or www.nlnac.org.

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: PHIL 104, PSYC 251, and SPCH 100, SPCH 120, SPCH 130, SPCH 132, or SPCH 150. 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.

CRIMINAL BACKGROUND CHECK

Clinical placements are a mandatory component of the curriculum and may require clearance of a criminal background check. Students who do not clear agency requirements are not eligible for clinical placement and will, consequently, be ineligible to continue in the program. If there is any concern regarding clearance of a criminal background check, please contact the Health Occupations Division for additional information.

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)
B. LPT-ADN (Licensed Psychiatric Technician to Associate Degree in Nursing)
C. LVN-ADN (Licensed Vocational Nurse to Associate Degree in Nursing)
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: PSYC 251, PHIL 104, and SPCH 100, SPCH 120, SPCH 130, SPCH 132, or SPCH 150 and one (1) 3-unit course from U.S. History or American Government (U.S. History or American Government courses chosen from Plan A, Sections B1 or B2) as listed in the College's General Education Requirements found in the College General Catalog and Schedule of Classes. Option A students desiring to matriculate to the CSU or UC system should also take PSYC 101 and SOC 101 or ANTH 100. for additional information, please refer to CSU or UC program requirements.

OPTION A – ASSOCIATE IN ARTS DEGREE

PREREQUISITES:

A&P 150, A&P 151, ENGL 100, and MICR 200 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	5.0
NRSG 211	*Introduction to Theoretical Framework	0.5
NRSG 212	**Medical-Surgical Nursing 2	5.0
NRSG 213A	*Major Drugs and Nursing Management I	0.5
Semester 2		
NRSG 213B	*Major Drugs and Nursing Management II	1.0
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

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 150, A&P 151, MICR 200, ENGL 100, PSYC 251, NRSG 25, NRSG 211, NRSG 213A, 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 satisfactory completion of the college placement process. Valid California LPT license.

REQUIRED COURSES		UNITS
Semester 1		
NRSG 212	**Medical-Surgical Nursing 2	5.0
Semester 2		
NRSG 213B	*Major Drugs and Nursing Management II	1.0
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

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 150, A&P 151, MICR 200, ENGL 100, NRSG 26, NRSG 215, PSYC 251, and NRSG 251, 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 80% or higher and at least one (1) acute care experience in a skilled nursing or hospital based facility..

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 151, MICR 200, NRSG 215 or equivalent with grades of Credit or "C" or higher. Optional Courses: NRSG 251 (strongly recommended), NRSG 26, and PSYC 251. Completion of the college placement test process for advisement purposes. Valid California LVN license. Completion of a medication calculation examination with a score of 80% 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 150, A&P 151, MICR 200, HO 152, NRSG 25 or NRSG 26, NRSG 200, NRSG 215, NRSG 251, and PSYC 251 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. Completion of a medication calculation examination with a score comparable to level of admission. 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. 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 TRANSFER PROGRAM

The following curriculum does not lead to an Associate in Arts Degree. To earn an AA degree, see Nursing 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 200 & 201, (preferred),or A&P150 & A&P 151, CHEM 100 or CHEM 110, or CHEM 111, MICR 200, PSYC 100, SOC 101, or ANTH 100.

Completion of one year of satisfactory work experience as a registered nurse recommended.

California State University – Los Angeles

A&P 200 or A&P 150
A&P 201 or A&P 151
CHEM 100
ENGL 100
One course from ENGL 103, PHIL 202, PHIL 106 or SPCH 235
PSYCH 101
PSYCH 251
SOC 101
SPCH 130
HO 151 and HO 152
A statistics course including Inferential Statistics.
A minimum of a "C" grade in all courses are required.

California State University – Long Beach

The department of nursing offers two bachelor's degrees:
Bachelor of Science in Nursing- Basic
Bachelor of Science in Nursing – Registered Nurse

Transfer students may only enter at the upper division (junior) level. You are considered an upper-division transfer student if you will have completed 60 or more transferable semester units or 90 transferable quarter units by the end of the prior Spring term for Fall entrance or the prior Summer term for Spring entrance. As an upper-division transfer student, you must also meet minimum CSU admission requirements by the time periods mentioned above to be considered for admission.

The Bachelor of Science in nursing programs are impacted.

Please refer to the admissions website for details,

http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html

Bachelor of Science in Nursing – Basic

A&P 200 or A&P 150
A&P 201 or A&P 151
MICRO 200
PSYCH101
SOC 101

Bachelors of Science in Nursing – Registered Nurse

In order to apply for this option a student must:

a) Hold a current license or be eligible for license to practice in California
b) Be a graduate from an accredited Associate Degree program or evaluation of diploma program for equivalency by an Accredited Associate Degree program.
c) Completion of general education for CSU or IGETC may be completed at the community college or at the university.

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 OR A&P 150
A&P 201 OR A&P 151
BIOL 200 AND BIOL 201
BIOL 202
CHEM 110
CHEM 111 AND CHEM 112
CHEM 211
MICR 200
PHYS 100
ANTH 100
PSYC 101
SOC 101
ENGL 100 AND ENGL 102 OR ENGL 103 OR PHIL 202 OR PSYC 103 OR SPCH 235

Select one course or more from Arts & Humanities. Choose from IGETC AREA 3

One UC transferable course in mathematical concepts and quantitative reasoning that has a prerequisite of intermediate algebra or higher is required.

In addition to the above requirements applicants must:

- Have completed an Associate's Degree in Nursing from a state-approved program or a Diploma in Nursing from an accredited program.
- Hold current licensure as a registered nurse and a minimum of one year of full time experience as a registered nurse within the past five years.
- Have a cumulative GPA of 3.0 in all UC transferable courses and a "C" or better on four required Excelsior College examinations.
- Complete specified major prerequisites with "C" or better grades
- Submit a statement of purpose that includes an assessment of potential for advanced practice study and a clear statement of goals upon completion of the program.

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.

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 Certificate of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

		UNITS
PHAR 45	Retail Products for Pharmacy Clerks	2
PHAR 47	Pharmacy Clerk Clinical Experience	2
PHAR 60	Pharmacy Introduction	2
PHAR 60L	Pharmacy Skills Lab Introduction	1
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

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:

(1) This requirement can be met by one of the following options: 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

The requirement can be met by one of the following options:

(1) Successfully complete the Reading Proficiency Test at the 12th grade level. The Reading Proficiency Test may be taken no more than once each semester.
(2) Completion of 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 $1,000.00. 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.

CRIMINAL BACKGROUND CHECKS

Clearance of a criminal background check may be required prior to clinical placement. Students who do not clear agency requirements are not eligible for clinical placement and will, consequently, be ineligible to continue in the course. If there is any concern regarding clearance of a criminal background check, please contact the Health Occupations Division for additional information.

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/placement test 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	2
PHAR 60L	Pharmacy Skills Lab Introduction	1
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
Optional:		
PHAR 73/74	Pharmacy Technician Occupational Work Experience	3-4
TOTAL CERTIFICATE REQUIREMENTS		31/33

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 electives and general education to achieve a minimum of 60 units. See Cerritos College Graduation Requirements.

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 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

University of California – Irvine

PHIL 106	Introduction to Logic	3
PHIL 201	Introduction to Twentieth Century Philosophy	3

At least one course from each area, A-D:

A)

ENGL 100	Freshman Composition	4
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 102	Political and Social History of the U.S.	3
HIST 103	Political and Social History of the U.S.	3
HIST 241	Western Civilization	3
HIST 242	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
PHIL 102	Introduction to Ethics	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)

University of California – Riverside

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
ASSOCIATE IN ARTS DEGREE PROGRAM

MAJOR REQUIREMENTS (26 UNITS)		UNITS
DEPARTMENT REQUIREMENTS (15 UNITS)		
PHOT 100	Introductory Photography	3
PHOT 102	Intermediate Photography	3
PHOT 110	Introduction to Digital Photography	3
PHOT 160	History of Photography	3
PHOT 234	Portfolio Development	3
SELECT 8 UNITS MINIMUM COURSE WORK FROM THE FOLLOWING:		
PHOT 112	Intermediate digital Photography	3
PHOT 122	Introduction to Color Photography	3
PHOT 171	Occupational Work Experience in Photography	3
PHOT 200	Advanced Photography	3
PHOT 230	Portrait Photography	3
PHOT 232	Approaches to Studio Lighting	3
PHOT 240	Experimental Photography	3
PHOT 250	Contemporary Photographic Expression	3
PHOT 252	Photography of the Landscape	3
PHOT 298	Directed Studies	1
PHOT 299	Directed Studies	2
SELECT 3 UNITS MINIMUM COURSE WORK FROM THE FOLLOWING:		
ART 120	Two-Dimensional Design	3
ART 192	Photoshop/Digital Imaging	3
ART 196	Intro Design Web Graphics	3
JOUR 130	Photojournalism	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
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.

(In addition to the common preparation)

JOUR 100	Intro to Mass Communication	3
JOUR 101	Begin Newswriting and Report	3

Creative Photography is an available concentration in the Art major.

PHOT 102	Intermediate Photography	3
or PHOT 200	Advanced Photography	(3)
or PHOT 240	Experimental Photography	(3)
ART 101	Appreciation and History	3
ART 102	Appreciation and History	3
ART 112	Life Drawing	3
or ART 213	Intermediate Life Drawing	(3)
ART 116	Beginning Printmaking	3
or ART 117	Intermediate Printmaking	(3)
or ART 219	Advance Etching	(3)

California State University – Long Beach

Art Photography may be selected as an option in the Art major. See the Art major sheet for core Art major requirements.

California State University – Northridge

Photojournalism may be selected as an option in the Journalism major.

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
EXERCISE SCIENCE: ATHLETIC TRAINER AIDE
CERTIFICATE OF ACHIEVEMENT

DEPARTMENT REQUIREMENTS:		UNITS
A&P 120*	Introduction to Human Anatomy & Physiology	4
MA 161	Medical Terminology	3
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	2
PE 260	Athletic Injury Assessment and Reconditioning	2
PE 261	Athletic Injury Taping, Bandaging & Immobilization	1
PE 271A	Occupational Work Experience for Athletic Training	1

*(A&P 150 & A&P 151 or A&P 200 & A&P 201 recommended for transfer students)

TOTAL CERTIFICATE UNITS 26

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

Meet the requirements of the Certificate of Achievement in Exercise Science: Athletic Training and complete general education requirements and electives to achieve a minimum of 60 units.

See Cerritos College Graduation Requirements.

Although many of these courses are transferable, this certificate/ A.A. degree is nontransferable.

Please see Counselors or the respective department chairperson for additional alternatives.

EXERCISE SCIENCE: FITNESS SPECIALIST CERTIFICATE OF ACHIEVEMENT

DEPARTMENT REQUIREMENTS:		UNITS
HED 110	Community First Aid and CPR	3
HED 200	Nutrition for Health, Fitness and Physical Conditioning	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 271B	Occupational Work Experience for Fitness	1
A&P 120*	Introduction to Human Anatomy & Physiology	4
BA 100	Fundamentals of Business	3

TOTAL CERTIFICATE UNITS 26

*(A&P 150 & A&P 151 or A&P 200 & A&P 201 recommended for transfer students)

ASSOCIATE IN ARTS DEGREE REQUIRMENTS:

Meet the requirements of the Certificate of Achievement in Exercise Science: fitness and complete general education requirements and electives to achieve a minimum of 60 units.

See Cerritos College Graduation Requirements.

Although many of these courses are transferable, this certificate/ A.A. Degree is nontransferable.

Please see Counselors or respective department chairperson for additional alternatives.

PHYSICAL EDUCATION 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	Nutrition for Health, Fitness and Physical Conditioning	3

RECOMMENDED GENERAL EDUCATION ELECTIVES

HED 100	Contemporary Health Problems	3
PSYC 101	General Introduction to Psychology	3
SOC 101	Introductory Sociology Principles	3

PHYSICAL EDUCATION 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
or A&P 150	Introduction to Anatomy	4
and A&P 151	Introduction to Physiology	4
or A&P 200	Human Anatomy and Physiology	5
and A&P 201	Human Anatomy and Physiology	5

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:

A&P 120	Introduction to Human Anatomy and Physiology	4

California State University – Long Beach
KINESIOLOGY MAJOR

A&P 200	Human Anatomy	5
or A&P 150	Introduction to Anatomy	4
A&P 201	Human Anatomy and Physiology	5
or A&P 151	Introduction to Physiology	4
PSYC 101	General Introductory Psychology	3
PE 156B	Golf: Intermediate/Advance	2
PE 172B	Volleyball, Intermediate/Advanced	2
PE 179B	Soccer, Intermediate/Advanced	2
PE 125	Water Safety Instructor	2

All one unit P.E. activity courses will be accepted for this major. Options available: Adapted Physical Education, Elementary School Physical Education, Secondary School Physical Education, Bachelor of Science in Kinesiology, Exercise Science.

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 100	Elementary Chemistry	4
CHEM 111	General Chemistry	5
PHYS 101	General Physics	4

Athletic Training Option

HO 152	Normal and Therapeutic Nutrition	3
MATH 114	College Algebra	4
PHYS 101	General Physics	4
PSYC 101	General Intro to Psychology	3

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.

EXERCISE SCIENCE ASSOCIATE IN ARTS DEGREE

REQUIRED COURSES

CORE REQUIREMENTS (19 UNITS)		UNITS
HED 110	Community First Aide and CPR	3
PE 107	Introduction to Athletic Training	3
PE 141	Fitness and Wellness	3
PE 254	Measurement and Interpretation to Fitness	3
PE 255	Programs and Principles of Conditioning	3
PE 271	Occupational Work Experience for Athletic Training and Fitness	1
AP 120*	Anatomy and Physiology	4

*(AP 150 & AP 151 or AP 200 & AP 201 recommended for transfer students)

Completion of all courses (7 units) in either the Fitness Emphasis or the Athletic Training Emphasis as listed below:

Fitness Emphasis

BA 100	Fundamentals of Business	3
HED 200	Nutrition For Health, Fitness and the Physical Conditioning	3
PE 271B	Occupational Work Experience for Fitness	1

Athletic Training Emphasis

MA161	Medical Terminology	3
PE 260	Athletic Injury Assessment and Reconditioning	2
PE 261	Athletic Injury Taping, Bandaging & Immobilization	1
PE 271A	Occupational Work Experience for Athletic Training	1

At lease two physical education activity courses from department approved list for a total of 3 units.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete (1) core requirement, (2) all courses in the Fitness Emphasis or the Athletic training emphasis (3) two physical education activity courses (4) the Associate in Arts Degree general education requirement.

PHYSICAL THERAPIST ASSISTANT PROGRAM 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 150, A&P 151 with grades 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 $1200.

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).

CRIMINAL BACKGROUND CHECK

Clinical placements are a mandatory component of the curriculum and may require clearance of a criminal background check. Students who do not clear agency requirements are not eligible for clinical placement and will, consequently, be ineligible to continue in the program. If there is any concern regarding clearance of a criminal background check, please contact the Health Occupations Division for additional information.

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/placement test 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 the Healthcare Provider offered through the Heart Association prior to the first hospital experience (PTA 126). Card must be valid throughout the program.

ASSOCIATE IN ARTS DEGREE

A total of 69 units including the following requirements must be completed to qualify for the A.A. Degree:

A&P 150	Human Anatomy	4
A&P 151	Human Physiology	4
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)
Additional General Education Requirements		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	3

Development

PTA 235	Neurology	3

Summer Semester

PTA 129	Physical Therapy Aspects of Aging and Integumentary Management	1.5

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
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
PHYS 100	Elementary Physics	4
or PHYS 101	General 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
CIS 171	Visual Basic Programming	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

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 - Long Beach

BIOL 120	Introduction to Biological Science	4
or BIOL 201	Principles of Biology	5
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 - Los Angeles

CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
ENGL 103	Critical Thinking and Argumentative Writing	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

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: Physics graduates with their Bachelor's Degrees qualify for graduate studies in Physics. Physicists find rewarding careers in teaching Physical Sciences, medicine, and industrial and governmental scientific endeavors.

See Cerritos College Graduation Requirements.
See California 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 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

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

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

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

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 TRANSFER PROGRAM

LOWER DIVISION MAJOR PREPARATION FOR SPECIFIC INSTITUTIONS — **UNITS**

California State University – Fullerton

POL 101	American Political Institutions	3
or POL 201	Introduction to Political Science and American Government	(3)

CSUF also requires a lower division study of politics course not offered at Cerritos College.

California State University – Long Beach

POL 101	American Political Institutions	3

California State University – Los Angeles

POL 101	American Political Institutions	3
or POL 201	Introduction to Political Science and American Government	(3)
POL 220	Comparative Government	3

PRELEGAL OPTION:

ECON 101	U.S. and Global Economy	3
or ECON 201	Principles of Macroeconomics	(3)
or ECON 202	Principles of Microeconomics	(3)

CSULA requires additional lower division courses for the major not offered at Cerritos College. In addition, students are advised to complete ENGL 103 as their CSU/GE Critical Thinking requirement. This will meet a graduation requirement at CSULA as the prerequisite to their Writing Proficiency Exam.

University of California – Irvine

CIS 101	Introduction to Computer Information Systems	3
or CIS 280	Object-Oriented Programming in C++	(3)
and CIS 182	JAVA Programming	(3.5)
MATH 170	Analytic Geometry and Calculus I	4
and MATH 112		
Elementary Statistics		4
or PSYC 210	Elementary Statistics	(4)
POL 101	American Political Institutions	3
or POL 201	Introduction to Political Science and American Government	(3)
POL 210	International Relations	3
POL 220	Comparative Government	3
POL 230	Contemporary Political Issues: Middle East	3

University of California – Los Angeles

MATH 112	Elementary Statistics	4
POL 101	American Political Institutions	3
or POL 201	Introduction to Political Science and American Government	(3)
POL 210	International Relations	3
POL 220	Comparative Government	3

UCLA also requires a lower division course in either political theory or politics and strategy not offered at Cerritos College.

University of California – Riverside

POL 101	American Political Institutions	3
POL 210	International Relations	3
POL 220	Comparative Government	3

RECOMMENDED:

MATH 112	Elementary Statistics	4

UCR also requires a lower division political ideologies course not offered at Cerritos College. In addition to the traditional Political Science major, UCR offers Political Science majors with emphases in Administrative Studies, International Affairs, Law and Society and Public Service. See a counselor for more information on appropriate courses.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the common lower division preparation plus other courses selected in consultation with a counselor to provide for the 18 unit minimum, (2) the Associate in Arts degree general education requirements, and (3) electives as needed 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 CAREER PATHWAY

The following curriculum does not lead to an Associate in Arts Degree in Pre-Chiropractic. However students could fulfill requirements for a Natural Sciences Degree by completing a minimum of 18 units including 2 Biological Sciences, 2 Physical Sciences and a math course beyond Intermediate Algebra.

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 courses considered for acceptance must have obtained at an institution or institutions accredited by a nationally recognized agency.

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

ADDITIONAL REQUIREMENTS FOR SPECIFIC INSTITUTIONS:

Cleveland Chiropractic College of Los Angeles
www.clevelandchiropractic.edu

Applicants must have completed a minimum of 90 semester units. A minimum of 48 semester units must be the specified science and general education requirements. Students who hold a baccalaureate degree in a health science discipline with a grade point average of 2.50, or who hold a non-health science baccalaureate degree with an earned grade point average of at least 3.25 receive preference for admission.

BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
Additional Social Sciences and or Humanities		15

Southern California University of Health and Sciences
Formerly Los Angeles College of Chiropractic
www.scuhs.edu

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 each prerequisite course. Applicants must have an overall grade point average (GPA) of 2.50 or higher. All courses must qualify as transferable to a Baccalaureate program.

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)
SPCH 100	Fundamentals of Speech	3
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: Job prospects are expected to be good for persons who enter the practice of chiropractic. Employment of chiropractors is expected to grow faster than the average for all occupations, through the year 2010 as consumer demand for alternative healthcare grows. The rapidly expanding older population, with their increased likelihood of mechanical and structural problems, also will increase demand. Demand for chiropractic treatment is also related to the ability of patients to pay, either directly or through health insurance.

PRE-DENTAL CAREER PATHWAY

The following curriculum does not lead to an Associate in Arts Degree. However students could fulfill requirements for a Natural Sciences Degree by completing 18 units including 2 Biological Sciences, 2 Physical Sciences and a math course beyond Intermediate Algebra.

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)

PSYC 101, General Introductory Psychology: required by many dental schools.

MATHEMATICS: The amount of mathematics beyond trigonometry needed will be determined by the major course of study the student elects to pursue.

RECOMMENDED ELECTIVES COURSEWORK: Anatomy/Physiology/Human Biology, Botany, Microbiology, Histology, Biochemistry, Genetics, Embryology, Cellular & Molecular Biology, College Algebra/Calculus/Statistics, Business Management, Accounting/Economics, Technical Writing Speech, Sociology/Anthropology, Foreign Language 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: Employment of dentists is expected to grow more slowly than the average for all occupations through 2010. Although employment growth will provide some job opportunities, most jobs will result from the need to replace the large number of dentists projected to retire. Job prospects should be good If the number of dental school graduates does not grow significantly, thus keeping the supply of newly qualified dentists near current levels. 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 CAREER PATHWAY

The following curriculum does not lead to an Associate in Arts Pre-Medical Degree. However, students could fulfill requirements for a Natural Sciences Degree by completing 18 units of science and math coursework to include a minimum of 2 Biological Sciences, 2 Physical Sciences and a math course beyond Intermediate Algebra.

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, honors, extracurricular activities, leadership, application, essay, research, clinical experience, community service, 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)

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 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 mathematics 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 and computer literacy is mandatory.

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 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: Employment of physicians and surgeons will grow about as fast as the average for all occupations through the year 2010 due to the continued expansion of health career industries. The growing and aging population will drive overall growth in the demand for physician services. Future physicians may be more likely to work fewer hours, retire earlier, have lower earnings, or need to practice in underserved areas. Opportunities should be very good in rural and low-income areas, because some physicians find these areas unattractive due to lower earnings potential. Unlike their predecessors, newly trained physicians face radically different choices of where and how to practice. New physicians are much less likely to enter solo practice and more likely to take salaried jobs in group medical practices, clinics and integrated healthcare systems.

PRE-OPTOMETRY CAREER PATHWAY

The following curriculum does not lead to an Associate in Arts Pre-Optometry Degree. However, students could fulfill requirements for a Natural Sciences Degree by completing 18 units of science and math coursework to include a minimum of 2 Biological Sciences, 2 Physical Sciences and a math course beyond Intermediate Algebra.

Admission to school of optometry offering the Doctor of Optometry is very competitive. College grades (GPA) and the Optometry Admission Test (OAT) scores are used in preliminary screening. The OAT is administered in October and February and is usually taken in the fall of your junior year. It is now being offered as a computerized test at Prometric Testing Centers, www.2test.org. 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. 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.

ADDITIONAL SOURCES OF INFORMATION:

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. Another valuable source of information is the Association of Schools and Colleges of Optometry, http://www.opted.org

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
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 2005 /Spring 2006, ninety-eight students were admitted from an applicant pool of three hundred and ninety-five. The average G.P.A. of the Ninety-eight students admitted was 3.45 G.P.A. The OAT scores ranged from 325 -348.

University of California – Berkeley
http:// optometry.berkeley.edu/admissions

CHEM 212	Organic Chemistry	5
MATH 190	Analytic Geometry	4

The following Cerritos College coursework is recommended to prepare students for required upper division equivalent science coursework: A&P 200, Human Anatomy, A&P201, Human Physiology, BIOL 202, Molecular Biology/Genetics, and MICR 200, Applications of Microbiology. Biochemistry was required as of Fall 2003/Spring 2004. It is taught at most universities and also required as an upper division course.

ADDITIONAL COURSES STRONGLY RECOMMENDED for application to the School of Optometry: Upper division Genetics, Physiology of the Aging Process, Cell Biology of the Eye, Mechanisms of Ocular Disease, Molecular & Cell Biology, and Integrative Biology.

The minimum of a bachelor's degree or its equivalent is now required for admission to UCBSO. Besides the additional science classes, the grade point average is extremely important. This last academic year, Fall 2005/Spring 2006 there were 213 applicants, of which sixty students were admitted with an average G.P.A. of 3.54 – 4.00. The average OAT score was 354 in all subjects. The range of OAT lowest scores were 300 and the high score were 400. 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. They may practice as independent practitioners, in a group practice, a health clinic or hospital. Job opportunities for the employment of optometrists is expected to grow about as fast as the average for all occupations

through 2010 in response to the vision care needs of a growing and aging population. Employment of optometrists would grow more rapidly were it not for anticipated productivity gains that will allow each optometrist to see more patients. These expected gains stem from greater use of optometry assistants and other support personnel, who will reduce the amount of time optometrists need with each patient. Also, new surgical procedures using lasers are available that can correct some visions problems, but they remain expansive. Optometrists will still be needed to perform pre-operative and post-operative care for laser surgery.

PRE-PHARMACY CAREER PATHWAY

The following curriculum does not lead to an Associate in Arts Pre-Pharmacy Degree. However, students could fulfill requirements for a Natural Sciences Degree by completing 18 units of science and math coursework to include a minimum of 2 Biological Sciences, 2 Physical Sciences and a math course beyond Intermediate Algebra.

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.

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 SCHOOLS OF OPTOMETRY:

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 (e.g., proficiency in a word processing program, spreadsheet, and Power Point; ability to send and receive emails with attachments and ability to search and retrieve information from the World Wide Web) and a speech communication class are required along with the following general education:

A & P 200	Human Anatomy (as of entry 2006)	5
CIS 101	Introduction to Computer Information Systems	3
PHYS 101	General Physics	4
PHYS 102	General Physics	4
SPCH 100	Fundamentals of Oral Communication	3
Humanities		12 units

Fine Arts, literature, philosophy, religion, ethics, foreign language, preferably Spanish, cultural diversity, performing arts, visual arts history or civilization

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 strongly 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. Applicants who have not earned a bachelor's degree prior to the start of classes in the Fall, will only be considered if they have exceptional academic performance and evidence of outstanding leadership potential. The Admissions Committee selects applicants for matriculation who have demonstrated the personal qualities of intelligence, maturity, integrity, dedication to the ideal of service to society, and who are best suited for meeting the educational goals of the School. The ability to express oneself clearly in both oral and written English is essential. In addition to intellectual and academic competence, the Admissions Committee considers communication skills, demonstrated leadership ability, community service and health care related experience. There were 1,058 applications received. Number of applicants invited to interview was 229 of which 100% had a bachelor's degree. Sixty students were admitted to the graduating class of 2009. The average overall G.P.A. of the students admitted was 3.67.

ECON 201	Principles of Macroeconomics	3
or ECON 202	Principles of Microeconomics	(3)
HUMANITIES AND FINE ARTS: any two additional courses		3-3
MATH 190	Analytic Geometry and Calculus II	4
PHYS 101	General Physics	4
PHYS 102	General 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
SOCIAL SCIENCES: Any two additional courses		3-3

Proficiency in a foreign language such as Spanish is considered highly desirable. It is also strongly recommended that students take upper division courses in biochemistry, physiology and cellular and molecular biology. These courses will better prepare the first year UCSD Pharmacy student.

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 96% of the students accepted to U.C.S.F. PharmD program have completed a bachelor's 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 1.6% of admitted students enter directly from a California Community College. Last year U.C.S.F. PharmD program accepted 122 students from 1,200 applicants.

A&P 201	Human Physiology	5
ECON 201	Principles of Macroeconomics	3
or ECON 202	Principles of Microeconomics	(3)
MATH 190	Analytic Geometry and Calculus II	4
PHYS 201	Engineering Physics	4
or PHYS 101	General Physics	(4)
PHYS 202	Engineering Physics	4
or PHYS 102	General 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
or SPCH 235	Fundamentals of Argumentation & Persuasion	(3)

University of Pacific
www.pacific.edu/pharmacy

Although a bachelor's degree is not required, a degree can make an applicant more competitive, 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 3.5. Check UOP PharmD website for specifically listed general education coursework. Recommended electives include anatomy, genetics, physiology, microbiology, biochemistry, analytical chemistry and physical chemistry.

ECON 201	Principles of Macroeconomics	3
or ECON 101	U.S. & Global Economy	(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
PHYS 101	General Physics	4
or PHYS 100	Elementary Physics	(4)
PSYC 101	General Introductory Psychology	3
or PSYC 271	Abnormal Psychology	(3)
SPCH 130	Fundamentals of Speaking	3

University of Southern California
www.usc.edu/schools/pharmacy/pharmd/

A minimum of 90 semester or 135 quarter units must be completed prior to entrance, with a minimum 3.0 cumulative G.P.A. and 2.75 Math and Science G.P.A. Sometimes a lower cumulative G.P.A. might be considered if grades in mathematics and science are stronger. It is highly recommended that Math and Science courses be completed during the regular academic year and not during a summer term. Pre-pharmacy requirements in the following areas must be repeated if they are 9 years or older at the time the application is submitted: mammalian physiology, microbiology, molecular biology, biochemistry and organic chemistry (full year). These courses must be repeated at a four-year college/ university. Priority is given to those who have completed the Math and Science requirements at the time of the application and to those applicants who have completed more than the minimum amount of coursework. Candidates who have received or will receive a Baccalaureate degree or who have completed units in excess of the minimum required would be considered more favorably than applicants who have fulfilled only minimum requirements. The School of Pharmacy Office of Admissions uses an interview process to make determinations on admissions. The interview consists of two parts: an oral interview and a writing test. The purpose of the interview is to assess your oral communication skills, writing skills, leadership ability, and your motivation or potential to be a pharmacist.

BIOL 202	Molecular Biology/Genetics	4
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 201	Engineering Physics	4
PHYS 202	Engineering Physics	4
PSYC 101	General Introductory Psychology	3
or SOC 101	Introductory Sociology Principles	(3)
SOCIAL/BEHAVIORAL SCIENCE: Two Additional courses		3-3
SPCH 120	Interpersonal Communication	3

The following **required** upper division courses are not offered at Cerritos College, but must be taken at another college or university: Biochemistry, Molecular Biology 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/pharmacy/pharmd_about.xml

Minimum of 60 semester units is required. Candidates who have received a baccalaureate degree will be considered more favorably than applicants who have fulfilled only minimum requirements. Complete perquisites with a "C" or better. All prerequisite coursework in progress must be completed no later than the spring semester or quarter immediately preceding matriculation. Summer session courses taken immediately prior to matriculation at Western University of Health Sciences are not accepted. Students must have a minimum cumulative and science grade point average of 2.5 in order to apply.

For the academic year Fall 2005/Spring 2006, 120 students were admitted from an applicant pool of 1,200 students. The average cumulative grade point average was 3.40 and the average science grade point average was 3.25. Applicants must submit an application by March 1 of the year prior to admission and participate in an admission interview and assessment of written and verbal communication skills.

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, and behavioral and social sciences. Electives must be met from at least two of the three following areas: Public Speaking/Debate, Social Sciences, to include Economics.

The following **required** coursework is not offered at Cerritos College, but must be taken at another college or university: Biochemistry (2 semesters) or Biochemistry (1 semester) and Molecular Biology (1 semester).

Advanced Placement, Transfer of Credit, CLEP or Credit for Experiential learning is not recognized by the program.

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 CAREER PATHWAY

(The following does not lead to an Associate of Arts degree)

There are several schools in California, both public and private, that offer the Masters degree in Physical Therapy. For specific information on schools not listed here please consult the catalogs of those schools and speak to a counselor.

California State University – Fresno

CSU Fresno offers a Bachelors of Science in Interdisciplinary Health and Rehabilitation Sciences. The major is designed to prepare undergraduate university students with prerequisite coursework, knowledge, attitudes and skills that will help them to gain admission to and succeed in graduate programs in the rehabilitation and health professions. Students apply to the master of Physical Therapy program after completing a bachelor of science in a related field. The following courses are considered the prerequisite courses for the program:

PREREQUISITE COURSES:		UNITS
A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
PHYS 101	General Physics	4
PHYS 102	General Physics	4
PSYC 101	General Introductory Psychology	3
MATH 112	Elementary Statistics	4

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 field, i.e. Biology (physiology) or KPE (Exercise Science), 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. Completion of a Bachelor's degree prior to enrollment is required. All prerequisite courses must be completed with a minimum grade of "C" and minimum cumulative GPA of 3.0

Prerequisite courses:		
A&P 200	Human Anatomy	5
A&P 201	Human Physiology	5
BIOL 120	Introduction to Biological Science	4
CHEM 111	General Chemistry	5
CHEM 112	General Chemistry	5
MATH 150	Precalculus Mathematics	4
PHYS 101	General Physics	4
PHYS 102	General Physics	4
PSYC 101	General Introductory Psychology	3

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 CAREER PATHWAY

The following curriculum does not lead to an Associate in Arts Pre-Veterinary Degree. However, students could fulfill requirements for a Natural Sciences Degree by completing 18 units of science and math coursework to include a minimum of 2 Biological Sciences, 2 Physical Sciences and a math course beyond Intermediate Algebra.

Veterinary medicine is the broadest and most comprehensive of all the health professions. Academic preparation for veterinary school takes place at the undergraduate level, consisting of both lower division AND upper division coursework with a special emphasis in the sciences. In order to succeed academically, in the rigorous veterinary school curriculum, veterinary schools are looking for individuals with a highly developed science background. The more competitive veterinary schools are looking for grade point averages in the range of 3.5 – 4.0 GPA. Many, but not all veterinary schools require a bachelor's degree. In most instances, a bachelor's degree makes an applicant more competitive in the admission process. Most veterinary schools require a standardized graduate admissions test (e.g. GRE, MCAT, and VCAT). Extracurricular activities such as community activities, motivation, and leadership are essential. Animal related activities and/or animal related work experience is mandatory. Most colleges are looking for a strong demonstrated commitment to working with animals. Some schools actually require employment by a Veterinarian. Many veterinary schools require that you apply through the Veterinary Medical Colleges Application Service (VCMAS). This is a central application, distribution, collection and processing service at VMCAS, P.O. Box 24700, Oakland, CA 94623-1700.

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 admitted to this school in the fall semester only. 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 accepted to the school has 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. Academic performance is the major factor in admission selection for the UC Davis Veterinary School. 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. The GRE is graduate admissions test, which is required by this veterinary school. If the GRE has been taken more than once, the highest score in every section will be used. Scores from the Graduate Record Examination (GRE, must be taken by October) also weigh 30%. Combined, the school believes they are the best predictors of how successful an applicant will be in completing the veterinary

curriculum. Extracurricular activities and substantial experience with animals (weighs 25%), which should include working or volunteer experience with veterinarians, a minimum of 180 hours is required. The final interview may weigh approximately 15%. Annual tuition will be approximately $35,000.

ADDITIONAL REQUIREMENTS FOR ADMISSION: Three strong letters of evaluation, a personal statement, and an interview.

ENGL 100	Freshman Composition	4
ENGLISH	(Any two additional classes)	3-3
HUMANITIES/ FINE ARTS		
(Any two-three additional classes)		8
SOCIAL/BEHAVIORAL SCIENCES		
(Any two-three additional classes)		8

The following required upper division courses are not offered at Cerritos College and must be taken at the university: Biochemistry, Genetics, and Systemic Physiology. Effective 2005 application period, Vertebrate Embryology is no longer required.

Western University of Health Sciences – College of Veterinary Medicine
www.westernu.edu

The College of Veterinary Medicine at Western University of Health Sciences was founded on August 8, 1998. The college admitted its charter class of 85 students in the Fall of 2003. Of those students admitted in 2003 the average overall cumulative G.P.A. was 3.15 and the average prerequisite G.P.A. was 3.25. The class which entered Fall 2005 consisted of 100 students from 513 applications received. The cumulative grade point average was 3.35 and prerequisite grade point average was 3.49. All applicants must take either the Medical College Admissions Test (MCAT) or the General Graduate Record Examination (GRE). Animal-related experience must total at least 500 hours of hands-on experience that goes beyond observation. Supervisors should be able to assess applicant's interest in animal well being, work habits and personal integrity. Appropriate venues include, but are not limited to the following: veterinary practices, animal medical environments, commercial animal production operations, regulatory animal control, humane shelters, animal entertainment (zoos etc.) and animal research institutions.

Applications for entry Fall 2006 will be available online by June 1, 2006. Annual tuition will be approximately $40,000.

ANTH 100	Cultural Anthropology	3
BIOL 202	Molecular Biology/Genetics	4
ENGL 100	Freshman Composition	4
ENGL 105	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)		3
SPCH 100	Fundamentals of Oral Communication	3

The following required courses are not offered at Cerritos College, but must be taken at a university: Biochemistry and any two upper division biological sciences (Anatomy, Animal Science, Biology, Botany, Cell Biology, Ecology, Embryology, Endocrinology, Histology, Immunology, Kinesiology, Mammology, Parasitology, Reproduction, Toxicology, Pharmacology, Physiology, or Zoology.)

For more school specific information concerning the above listed requirements at individual out of state schools look up the specific veterinary school website.

Colorado State University Veterinary School
www.cvmbs.colostate.edu
Cornell University Veterinary School
www.vet.cornell.edu
Michigan State Veterinary College
www.cvm.msu.edu
Oregon State Veterinary School
www.vet.orst.edu/admiss.admiss.htm
Washington State University Veterinary School
www.vetmed.wsu.edu

For further detailed programming about the complexities of veterinary school admissions: U.S. News Rankings and Ratings, www.usnews.com and Veterinary School Search, www.wpi.edu/Academics/Dept/Bio/PreHealth/Search

THE REQUIREMENTS FOR VETERINARY SCHOOLS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CAREER OPPORTUNITIES: Employment of veterinarians is expected to increase faster than the average for all occupations through the year 2012. Most veterinarians in the United States are seek a private practice. Other veterinarians work in a wide range of fields relating to public health, animal disease control, environmental protection, the biotechnology industry, higher education or research. New graduates continue to be attracted to small-animal medicine because they prefer to deal with pets and to live and work near heavily populated areas. Beginning private practice veterinarians may taker positions requiring evening or weekend work to accommodate the extended hours of operation that many practices are offering. Some veterinarians take salaried positions in retail stores offering veterinary services. Self-employed veterinarians usually have to work hard and long to build a sufficient client base. Job prospects may be better for veterinarians who specialize in farm animals than for small animal practitioners because of low earnings in the former specialty and because many veterinarians do not want to work in rural or isolated areas. Continued support for public health and food safety, national disease control programs, and biological research on human health problems will contribute to the demand for veterinarians, although positions in these areas of interest are few in number.

PSYCHOLOGY
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 – Dominguez Hills

PSYC 210	Elementary Statistics	4
or MATH 112	Elementary Statistics	(4)
PSYC 220	Research Methods	4

California State University – Long Beach

PSYC 210	Elementary Statistics	4
or MATH 112	Elementary Statistics	(4)
PSYC 220	Research Methods	4
PSYC 241	Introduction to Psychobiology	3

California State University – Fullerton

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	(5)
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

PSYC 210	Elementary Statistics	4
or MATH 112	Elementary Statistics	(4)
or MATH 115	Finite Mathematics	(4)
or CIS 280	Object-Orientated Programming in C++	(3)
or MATH 170	Analytic Geometry and Calculus 1	(4)
or MATH 116	Calculus for Managerial Biological and Social Sciences	(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	4
or PHYS 101	General Physics	(4)
or PHYS 201	Engineering Physics	(4)

University of California – Irvine

In fulfillment of the requirements below, a single course may be used only once.

CIS 101	Introduction to Computer Information Systems	(3)
MATH 170	Analytic Geometry & Calculus I	4
and PSYC 210	Elementary Statistics	4
or MATH 112	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
PSYC 210	Elementary Statistics	(4)
PSYC 220	Research Methods	4
PSYC 241	Introduction to Psychobiology	3
PSYC 251	Developmental Psychology	3
PSYC 261	Social Psychology	3
PSYC 271	Abnormal Psychology	3

Two of the following:

ANTH 100	Cultural Anthropology	3
or ANTH 115	Physical Anthropology	(3)
ECON 101	US & Global Economy	3
SOC 101	Introductory Sociology Principles	3

University of California – Riverside

A)

PSYC 210	Elementary Statistics	(4)
PSYC 220	Research Methods	4

B) Complete one course in mathematics, statistics, or computer science (Any UC transferable course from one of these 3 disciplines is acceptable to fulfill this requirement. PSYC 210 will not double count for this requirement.)
Note: The following course is strongly recommended to fulfill this area, as it is a prerequisite to UCR's PSYC 11 "Psychological Methods: Research Procedures"

MATH 150	Precalculus Mathematics	(4)

C) Complete one course in Biological Science

BIOL 120	Introduction to Biological Science	(4)
BIOL 200	Principles of Biology (5)	
BIOL 201	Principles of Biology 5	
BOT 120	Introduction to Plant Science	4
and ZOOL	120Introduction to Animal Biology	4

D) Complete one course in Physical Science

ASTR 101	Elementary Astronomy (3)	
ASTR 102	Introduction to Astronomy: Stars and the Universe	(3)
ASTR 103	Introduction to Astronomy: The Solar System	3
ASTR 106	History of Astronomy 3	
CHEM 100	Introductory Chemistry 4	
CHEM 111	General Chemistry (5)	
and CHEM 112	General Chemistry (5)	
PHYS 201	Engineering Physics (4)	
and PHYS 202	Engineering Physics (4)	

No credit for ASTR 102 or 103 if taken after ASTR 101. UC transferable credit for ASTR 102 and 103: maximum credit, one course.

A UC transferable 3 semester/4 quarter unit geoscience course (such as geology or geography course, with the exception of cultural geography) may also be used towards the physical science requirement.

E) Complete two additional courses from areas B), C) or D) above.

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.

RADIO/TELEVISION BROADCASTING

The following Broadcast Media Program of Study has been designed to prepare student for an AA degree. Students interested in preparing for a Bachelor's Degree at a four-year college are referred to the Theater Arts Transfer Program.

Broadcast Media		25 Units
Complete 17 Core Units		
JOUR 101	Beginning Newswriting and Reporting	3
JOUR 170	Broadcast Journalism	1
RTV 151	Motion Pictures, Radio and TV	3
RTV 152	Motion Pictures, Radio and Television	3
RTV 153	Introduction to Broadcasting	3
RTV 155	Radio Production	3

RTV 198	Directed Studies	1
or RTV 171	Occupational Work Experience in Radio/TV	(1)

PLUS A MINIMUM OF 8 UNITS FROM THE FOLLOWING

MUS 146	Sound Recording Techniques	3
SPCH 140	Oral Interpretation of Literature	3
SPCH 145	Storytelling	3
SPCH 271	Voice and Articulation	3
TH 117	Stand-Up Comedy	3
TH 258	Writing for Movies and TV	3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units to include (1) the above courses and units, (2) AA Degree General Education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Acting, announcing, directing, reporting, media/sound recording technician, media production assistant, and media publicity technician.

See Cerritos College Graduation Requirements.

RADIO/TELEVISION BROADCAST ANNOUNCING CERTIFICATE OF COMPLETION

This certificate helps the student focus on the study of and preparation for entry level employment in the field of broadcast announcing at radio and television stations, and in online broadcast ventures. This is certificate is one of a two-part certificate combination that will begin to prepare the student for an associate degree in Broadcast Media. (See JOUR 141 – Broadcast Journalism)

Radio/Television Broadcast Announcing		17 Units
RTV 152	Introduction to Broadcasting	3
RTV 155	Radio Production	3
TH 156	Video Production	3
JOUR 170	Broadcast News 1	
SPCH 140	Oral Interpretation of Literature	3
SPCH 271	Voice and Articulation	3
RTV 298	Directed Studies in Radio – TV*	1
or RTV 171	Occupational Work Experience in Radio-TV*	(1)

* Should be a broadcasting-related internship

SECURITY MANAGEMENT ASSOCIATE IN ARTS DEGREE

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

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units, including (1) the Security Management Core requirements and (2) A.A. degree general education requirements.

SECURITY MANAGEMENT CORE		UNITS
AJ 101	Introduction to Administration of Justice	3
AJ 112	Introduction to Security Management	3
AJ 210	Legal Aspects of Security Management	3
AJ 211	Investigative Techniques for Security Management	3
AJ 212	Public Safety and Security Management	3
AJ 213	Public Safety Communications	3
AJ 214	Information Security	3

CAREER OPPORTUNITIES: Upon completion of the Security Management Associate in Arts Degree program employment within the public and private security sector is available. The security industry encompasses a wide range of services from standard guard duties to complex responsibilities ranging from public safety to major corporate security activities. Those students who are existing employees within the security industry will have the advantage of a quality education, which can be applied towards promotional, and assignment responsibilities. These opportunities range from supervision of a relatively few security personnel to management of both public and private security agencies. The career opportunities within the security industry consist of positions in loss prevention, risk management asset protection, health care, government, entertainment, sports, retail and corporate settings.

See Cerritos College Graduation Requirements.

SIGN LANGUAGE CERTIFICATE 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 Certificate of Completion is nontransferable. Please see counselors or the respective department for additional alternatives.

SOCIAL WELFARE CAREER PATHWAY

(The following curriculum does not lead to an Associate in Arts Degree. To earn an AA degree, see Sociology or Psychology 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 or Recommended SOC 220 (Intro to Human Services)

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
MATH 112	Elementary Statistics	4

Students transferring to CSULA are encouraged to take ENGL 103 as their CSU General Education Critical Thinking requirement, particularly if they have not already fulfilled that requirement. Although ENGL 103 is not a requirement for the major, taking it will satisfy the prerequisite for a graduation requirement at CSULA. Please see a counselor if you have questions or need clarification.

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 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

		UNITS
SOC 101	Introductory Sociology Principles	3
PSYC 210	Elementary Statistics	4
or MATH 112	Math Statistics	(4)

Recommended Electives

ANTH 100	Cultural Anthropology	3
PSYC 101	General Introductory Psychology	3
SOC 215	Sociology of Cultural Diversity: Challenge and Change	3

LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills

No other requirements other than the common lower-division preparation.

California State University – Fullerton

No other requirements other than the common lower-division preparation. All courses counting toward the major must be taken for a letter grade.

California State University – Los Angeles

No other major requirements other than the common lower-division preparation. Students who transfer without having completed CERRITOS' SOC 101 and CSULA's SOC 210A & SOC 210B (for which Cerritos does not have an articulated equivalent) are strongly recommended to include those courses among their first courses at CSULA.

Students transferring to CSULA are encouraged to take ENGL 103 as their CSU General Education Critical Thinking requirement, particularly if they have not already fulfilled that requirement. Although ENGL 103 is not a requirement for the major, taking it will satisfy the prerequisite for a graduation requirement at CSULA. Please see a counselor if you have questions or need clarification.

California State University – Long Beach

In addition to the common lower-division preparation, students should complete the following requirements:

ANTH 100	(Recommended) Cultural Anthropology	3
SOC 201	Social Problems	3

California State University – Pomona

Please note that only MATH 112, Elementary Statistics, is accepted for Cal Poly's STA 120, Elementary Statistics with Applications. Cerritos' PSYC 210 Elementary Statistics is not articulated.

In addition to the common lower-division preparation, students must complete the following requirements:

SOC 201	Social Problems	3
PSYC 220	Research Methods	3
PSYC 101	General Introductory Psychology	3

Students should take the following general education courses to fulfill support course requirements. Please see a counselor for clarification.

SUPPORT COURSES

ENGL 102	Freshman Composition and Literature	3
or ENGL 103	Critical and Argumentative Writing	(3)
PHIL 106	Introduction to Logic	3

University of California – Irvine

In addition to the common lower-division preparation, students must complete the following requirements:

SOC 201	Social Problems	3
MATH 170	Analytic Geometry and Calculus I	4

TWO COURSES FROM:

SOC 110	Marriage and the Family	3
or SOC 210	American Minority Relations	(3)
or PSYC 261	Social Psychology	(3)

Two additional social science courses are required.

An approved list of courses is available from www.assist.org

An additional computer requirement can be satisfied by choosing from the options below:

CIS 101	Introduction to Computer Information Systems	3
or CIS 280	Object-Oriented Programming in C++	(3)
and CIS 182	JAVA Programming	(3)

University of California – Los Angeles

In addition to the common lower-division preparation, students must complete the following requirements:

MATH 115	Finite Mathematics	4
or MATH 116	Calculus for Managerial, Biological, and Social Sciences	(4)
or MATH 170	Analytic Geometry and Calculus I	(4)

The Sociology Department at UCLA requires you complete all major preparation courses available at Cerritos prior to transferring. All courses must be taken for a letter grade.

University of California – Riverside

In addition to the common lower-division preparation, students must complete the following requirements:

One additional lower division sociology course. Any UC transferable sociology course is acceptable.

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: The degree provides a strong preparation for positions in business, social sciences, government, public relations, or journalism. It provides a good base for future study in law, education, medicine, social work or counseling.

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

SPANISH 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

The common lower division preparation for the California State University listed previously is required. 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

The common lower division preparation for the California State University listed previously is required. SPAN 111 or SPAN 112 are also accepted in place of the common lower division preparation courses of SPAN 101 or SPAN 102 respectively. There are no additional requirements other than the common lower division preparation.

California State University – Fullerton

The common lower division preparation for the California State University listed previously is required. 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. In addition, the following courses are required:

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

There are no additional requirements other than the common lower division preparation previously listed for the California State University. Students who have completed sufficient high school Spanish or equivalent may be eligible to take upper-division courses as soon as proficiency requirements have been met. One year of a second foreign language at the university level, or equivalent is also required. No course being used to satisfy any major requirement for the B.A. may be taken on a Credit/No Credit basis.

California State University – Los Angeles

No additional requirements other than the common lower division preparation previously listed for the California State University. 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.

Students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement as CSULA as the prerequisite for their writing proficiency requirement.

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 CERTIFICATE OF COMPLETION

A Certificate of Completion shall be awarded to the student who completes with a grade of "C" or higher the following courses:

DIVISION/DEPARTMENT REQUIREMENTS		UNITS
Choose 6 units from any of the following courses		
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
SPCH 200	Contemporary Communication Topics	3
TOTAL VERIFICATION REQUIREMENTS		15

SPEECH
TRANSFER PROGRAM

LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS **UNITS**

California State University – Fullerton

Bachelor of Arts in Speech Communication, Human Communication Studies.

Double counting of Human Communication courses for general education and major requirements is permitted only for SPCH 130.

For Bachelor of Arts in Communications – see a counselor

SPCH 130	Fundamentals of Speaking	3

California State University – Long Beach

Bachelor of Arts in Speech Communication

OPTION IN GENERAL SPEECH

SPCH 100	Fundamentals of Oral Communication	3
or SPCH 120	Fundamentals of Interpersonal Communication	(3)
SPCH 235	Fundamentals of Argumentation And Persuasion	3

Choose (1) from the following:

SPCH 130	Fundamentals of Speaking	3
SPCH 132	Fundamentals of Small Group Communication	(3)
SPCH 150	Organizational Communication	(3)
SPCH 271	Voice and Articulation	(3)

OPTION IN INTERPERSONAL AND ORGANIZATIONAL COMMUNICATION

SPCH 100	Fundamentals of Oral Communication	3
or SPCH 120	Fundamentals of Interpersonal Communication	(3)
SPCH 130	Fundamentals of Speaking	3
SPCH 150	Organizational Communication	3

Choose (1) from the following:

SPCH 132	Fundamentals of Small Group Communication	3
SPCH 235	Fundamentals of Argumentation And Persuasion	(3)
SPCH 271	Voice and Articulation	(3)

OPTION IN RHETORICAL STUDIES

SPCH 130	Fundamentals of Speaking	3
SPCH 235	Fundamentals of Argumentation And Persuasion	3

Choose (1) from the following:

SPCH 132	Fundamentals of Small Group Communication	3
SPCH 271	Voice and Articulation	(3)
JOUR 100	Intro to Mass Communication	(3)

California State University – Los Angeles

Bachelor of Arts – Communication

Students transferring to CSULA are encouraged to take ENGL 103 as their CSU General/Education Critical Thinking requirement. This will also meet a graduation requirement at CSULA as their prerequisite for their writing proficiency requirement.

Core Requirements for the General Option

SPCH 100	Fundamentals of Oral Communication	3
SPCH 235	Argumentation and Persuasion	3

Choose (3) from the following for a total of (8) units of electives:

SPCH 120	Fundamentals of Interpersonal Communication	3
SPCH 132	Fundamentals of Small Group Communication	3
SPCH 140	Oral Interpretation of Literature	3
SPCH 239	Forensics Workshop	2
SPCH 240	Oral Interpretation: Reader's Theatre	3

Concentration in Rhetoric - Select

SPCH 239	Forensics Workshop	2

Concentration in Performance Studies - Select

SPCH 140	Oral Interpretation of Literature	3
SPCH 240	Oral Interpretation: Reader's Theatre	3

Concentration in Organizational Communication and Public Relations – Select

SPCH 132	Fundamentals of Small Group Communication	3

Concentration in Interpersonal Communication/Language and Social Interaction – Select

SPCH 120	Fundamentals of Interpersonal Communication	3
SPCH 132	Fundamentals of Small Group Communication	3

For single subject teaching option – see a counselor

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
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 139	Observation, Assessment and Positive Guidance of Childhood Behavior	3
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 CERTIFICATE REQUIREMENTS		21

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

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.

CRIMINAL BACKGROUND CHECK

Clearance of a criminal background check may be required prior to field experience. Students who do not clear agency requirements are not eligible for clinical placement and will, consequently, be ineligible to continue in the course. If there is any concern regarding clearance of a criminal background check, please contact the Health Occupations Division for additional information.

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 139	Observation, Assessment and Positive Guidance of Childhood Behavior	3
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		50.5

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 TEACH California 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. A Liberal Studies major however, is recommended because it provides the best preparation for future elementary school teachers. At most universities, the Liberal Studies major incorporates professional and subject matter content included in the California Teaching Standards for elementary school instruction.

With the recent enactment of the No Child Left Behind federal regulations, school districts are now requiring a passing score on the California Subject Examination for Teachers (CSET) for all new teachers hired. It is recommended that students take the CSET after transfer, per the advice of university department or credential advisors. The CSET is administered by the National Evaluation System, Inc. It is a five-hour test consisting of three separate subtests, each containing both multiple-choice and essay questions. Subtest I measures knowledge in reading, language and literature, history and social science; Subtest II covers science and mathematics; and Subtest III includes physical education, human development; visual and performing arts. 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 on the CSET, 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 a 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 Liberal Arts & Science-General, 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 is an entrance requirement for most university credential programs. 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 (Except CSU Los Angeles)
Math 110A and 110B (Except CSU Fullerton)
History 102
History 245+
Political Science 101
Child Development 110+
+Recommended for CSU Fullerton Traditional Curriculum

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

Important Notice: Requirements may be updated. New students beginning to take courses for transfer to Liberal Studies Program should consult with a counselor or contact the Liberal Studies Program for current information.

English 100
English 102 or 103++
Speech 100, 120, 130, 132, or 150
English 103*, Philosophy 106, 202, or Speech 235
Biology 120
Any Physical Science course from Area B1* (ESCI 101, Geog 101 or Physical Science 100 preferred))
Math 110A and 110B
Art 100, 101, or 102
Music 100,101 or 105
English 222
History 101, 102, or 103
Political Science 101 or 201
History 120
History 245
Child Development 110
Any course from Area E*
++English 103 satisfies both requirements

Students may also choose to complete course work for the Art, Math, or Special Option before transferring. Please log on to www.assist.org for option course that can be competed at Cerritos College.

CALIFORNIA STATE UNIVERSITY, FULLERTON

Students can complete requirements to prepare to become elementary school teachers in multiple ways at CSU Fullerton. They can major in Child and Adolescent Development or Liberal Studies and complete the traditional curriculum. Or they can major in Child and Adolescent Development or Liberal Studies and complete the STEP curriculum (see description of STEP below). Please see a counselor, and consult www.ASSIST.org for the major requirements for Child and Adolescent Development or Liberal Studies, depending on the preparation program you choose.

Traditional Curriculum

Important Notice: Requirements may be updated. See note (+++) below. Students should see a Cerritos College counselor or contact the CCT for current information.

Speech 100, 120, 130, 132, or 150
English 100
English 103, Philosophy 106, 202, Psychology 103, or Speech 235
Geology 101 or Geography 101 or Earth Science 110
Biology 120
Any Mathematics course from Area B.3* (Mathematics 100 or 140 preferred)
One course from: Music 100 or 105 or Theatre 101
English 230A, 230B, 246A, 246B, 248A, or 248B
English 222
History 101 or 102 (preferred)
Political Science 101 or 201
Geography 105
One course from Area E*

Recommended additional courses:

Child Development 110
History 120
History 245
Physical Education 180 and 181
Physical Science 112 or Chemistry 100 or Chemistry 105

* Refers to designated areas of the CSU General Education Certification requirements.

It is *important* to request CSU GE certification when transferring to CSU Fullerton.

All courses are highly recommended, but not required as preparation for the CSET exam. It is also highly recommended, but not required, that students transfer with twelve units completed in CSU GE Areas B, C, and D.

+++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. Students are advised to bring transcripts. Seminar dates are on the website.

Students can also attend a CCT seminar at Cerritos and can get information on dates from the Transfer Center. They may also be able to see the CCT transfer representative there.

Streamline Teacher Education Program (STEP)

STEP is the Streamlined Teacher Education Program designed for students to earn their Bachelor's degree and Multiple Subject Credential in a reduced number of units. The courses for this program (see below) are very specific and all those would need to be completed with a "C" or better and a grade point average of 2.5 prior to transfer. Students can sign up with the representative from CSU Fullerton's Center for Careers in Teaching (714-278-7130)

Speech 100, 120, 130 (preferred), 132 or 150
English 100
English 103, Philosophy 106, Philosophy 202, Psychology 103 or Speech 235
Chemistry 105
Physical Science 112
Earth Science 110
Biology 120
Any Math course from area B.3*
Music 100, Music 105, Theatre 101
English 230A, 230B, 246A, 246B, 248A, 248B
History 245
History 102
Political Science 101
Geography 105
Child Development 110 or Psychology 251
Education/Elementary School Teachers 100 & 200
English 222
History 120

* Refers to designated areas of the CSU General Education Certification requirements.

CALIFORNIA STATE UNIVERSITY – LOS ANGELES

The following courses represent a partial list of the necessary curriculum for transfer. Please see counselor for additional requirements or log on to www.assist.org.

Speech 130
English 100
English 102
English 103
Speech 235, Philosophy 202 or 106
Math 110A and Math 110 B
Math 105
History 245
History 102
Political Science 101 or 201
Physical Education 141
Child Development 110

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 6th, 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
Earth Science 110
Education/Elementary School Teachers 100+
Education/Elementary School Teachers 200+
Educational Technology 110
English 100
Geography 105
History 120
History 102
History 245
Math 105
Math 110A
Math 110B
Music 105
Physical Science 112
Political Science 101
Speech 130
Theatre 101
English 102, 230A, 230B, 246A, 246B, 248A, or 248B
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 yearlong credential program. Teacher TRAC requirements differ from those below.

English100
Speech 130
English 103, Philosophy 106, 202, or Speech 235
Biology 120
Geology 101
Physical Science 112
Math 110A and 110B
Music 105
Theatre 101
English 230A, 230B, 246A or 246B
Foreign Language 3rd semester course
Philosophy 100, 102 or 200
History 102
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

*REFERS TO DESIGNATED AREAS OF THE CSU GENERAL EDUCATION CERTIFICATION REQUIREMENTS

UNIVERSITY OF CALIFORNIA, RIVERSIDE

There are no mandatory lower division courses for the UCR Liberal Studies major. The courses listed below have been determined by the UCR faculty as courses that will best prepare students for the CSET.

English 100
English 103, Philosophy 202, or Psychology 103
Biology 120 or Biology 201+200 or Botany 120 + Zoology 120
Chemistry 100 or Chemistry 111
Biology 105

Math 150
Art 110, 130A, or 136
Music 101, or 105
Theatre 101 or 110
English 230A
English 248
History 102
Political Science 101
Anthropology 100
History 245
History 246
Sociology 101
Physical Education 180
Health Education 100
Women's Studies 101
+ UC credit limitation. See counselor for details.

For additional information, please check the ASSIST website at www.assist.org

THEATRE ARTS
ASSOCIATE IN ARTS DEGREE PROGRAM

The following Broadcast 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.

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 (1) from the following:

TH 111	Intermediate Acting to Characterization	3.5
TH 114	Voice for Acting	2
TH 115	Stage Movement and Combat	3

Choose (1) from the following:

TH 120	Theatre Stagecraft	3
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3

Choose (2) from the following for a total of (6) units:

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

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
TRANSFER PROGRAM

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University – Dominguez Hills

		UNITS
TH 101	Introduction to the Theatre	3
TH 110	Fundamentals of Acting	3.5
TH 120	Theatre Stage Craft	3

Note: The Theatre Art program strongly suggests taking between six to eight courses of college preparatory English as well as speech, diction, singing, dance, and physical education.

California State University – Fullerton

Acting Emphasis:

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 120	Theatre Stagecraft	3
or TH 221	Costuming for the Stage	(3)
TH 123	Stage Make-Up	3
TH 212	Scene Study	3.5
SPCH 140	Oral Interpretation of Literature	3

Technical Production/Design Emphasis:

TH 101	Introduction to the Theatre	3
TH 111	Intermediate Acting to Characterization	3.5
TH 120	Theatre Stagecraft	3
TH 123	Stage Make-Up	3
TH 221	Costuming for the Stage	3
TH 226	Introduction to Scenic Design	2

Other Performance and Production emphasis: Directing; playwriting; and Entertainment Studies; Additional Concentrations: Liberal Arts and Teaching. Please see a counselor for other emphasis, concentrations, and Bachelor of Fine Arts requirements

California State University – Los Angeles

Core requirements:

TH 110	Fundamentals of Acting	3.5
TH 114	Voice for Acting	2
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3
PE 182A	Dance, Modern, Beginning	2
PE 184	Choreography	2
PE 186A	Beginning Ballet	2

Theatre Arts option (in addition to above requirements):

TH 111	Intermediate Acting to Characterization	3.5
TH 212	Scene Study	3.5
TH 120	Theatre Stage Craft	3

NOTE: Students are advised to complete ENGL 103 as their CSUGE Critical Thinking requirement. This will also meet a graduation requirement at CUSLA as their prerequisite for their writing proficiency requirement.

ENGL 103	Critical and Argumentative Writing	3

California State University – Long Beach

TH 110	Fundamentals of Acting	3.5
TH 115	Stage Movement and Combat (optional)	(3)
TH 120	Theatre Stage Craft	3
TH 123	Stage Make-Up (optional)	(3)
TH 221	Costuming for the Stage	3
TH 222	Stage Lighting	3

Theatre Options: Performance; Technical Theatre

Note: For Performance majors, at the beginning of the semester, all incoming students are required to audition for admittance to certain upper division classes and are therefore used for appropriate placement of students at their level of competency.

University of California – Irvine

Drama Major:

TH 102	History of the Classical Theatre	3
TH 103	History of the Modern Theatre	3
TH 110	Fundamentals of Acting	3.5
TH 111	Intermediate Acting to Characterization	3.5
TH 120	Theatre Stage Craft	3
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) or four units from:

TH 114	Voice for Acting	2
TH 115	Stage Movement and Combat	3

University of California – Los Angeles

These courses are not required but provide recommended preparation for the program:

TH 110	Fundamentals of Acting	3.5
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

Fall Admissions Only. Admission requirements include: Supplemental application, personal essay, two letters of recommendation, an audition/interview, a writing sample, and a minimum 3.0 GPA at the time of the application. For more information see http://www.tft.ucla.edu/auditiontour. In addition, students must complete general education coursework prior 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.

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
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
WELD 120	Beginning Arc Welding	4
WELD 170	Structural Fabrication	2
or WELD 53	Pipe Layout	(2)
		13

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

WELD 200	Intermediate Arc Welding	4
WELD 210L	Arc Welding Applications	2
WELD 220	Certification and Licensing for Welders	2
		21

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

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

PIPE WELDING OPTION

WELD 52	Pipe Welding Fundamentals	4
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
		29

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, sheet metal mechanic, and maintenance mechanic. Welders are employed in aircraft industries, shipyards, job shops, pipeline construction, and building construction.

See Cerritos College Graduation Requirements.

WILDLIFE MANAGEMENT AND CONSERVATION TRANSFER PROGRAM

LOWER DIVISION PREPARATION FOR HUMBOLDT STATE UNIVERSITY

		UNITS
BIOL 200	Principles of Biology	5
BIOL 201	Principles of Biology	5
CHEM 110	Elementary Chemistry	5
PHYS 101	General Physics	(4)
MATH 150	Precalculus Mathematics	4

See a counselor for option in Conservation Biology/Applied Vertebrate Ecology.

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.

WOMEN'S STUDIES

The A.A. degree in Women's Studies is a two-year academic program geared for transferring students. Its emphasis is 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 the mission statement: "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."

WOMEN'S STUDIES ASSOCIATE IN ARTS DEGREE

MAJOR REQUIREMENTS — **UNITS**

COMPLETION OF 18 UNITS IN WOMEN'S STUDIES COURSES
CORE COURSES (WS 101 MUST BE TAKEN)

WS 101	Issues for Women in American Society (Women's Studies)	3

Choose (2) from the following for a total of (6) units:
Global Emphasis:

ANTH 100	Cultural Anthropology (Women's Studies)	3
ANTH 204	The Anthropology of Sexuality and Gender (Women's Studies)	3
ART 109/HUM 109	Gender and Sexuality in Art (Women's Studies)	3
ECON 102	Women in Global Economy (Women's Studies)	3
ENGL 236	Studies in Women's Literature (Women's Studies)	3
PHIL 202	Critical Thinking and Argumentative Writing (Women's Studies)	3
WS 102	Women and Religion (Women's Studies)	3
WS 205	Sexuality and Gender (Women's Studies)	3
WS 206	Women in the Global Economy	3

Choose from the following for a minimum of (9) units:
U.S. Emphasis:

ECON 202	Principles of Microeconomics (Women's Studies)	3
ENGL 100	Freshman Composition (Women's Studies)	4
ENGL 224	Native American Literature (Women's Studies)	3
HED 103/WS 103	Women, Their Bodies and Health (Women's Studies)	3
HIST 204/WS 204	Women in American History (Women's Studies)	3
PE 106	Women in Sports (Women's Studies)	3
PE 160	Personal Self Defense (Women's Studies)	1
POL 101	American Political Institutions (Women's Studies)	3
SPCH 120	Fundamentals of Interpersonal Communication (Women's Studies)	3
SOC 101	Introductory Sociology Principles (Women's Studies)	3
SOC 110	Marriage and the Family (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.

WOODWORKING MANUFACTURING TECHNOLOGIES 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 118	Wood Turning	2
WMT 130	Furniture Design	3
WMT 151	Introduction to Cabinetmaking	4
WMT 153	Intro to 32mm Cabinetmaking	4
WMT 155	Introduction to Millwork	4

WMT 181	Computer Operations for Woodworking	3
WMT 201	Woodworking with Hand Tools	4

Choose from the following for a minimum of (12) units:

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.

WOODWORKING MANUFACTURING TECHNOLOGY CABINETMAKING CERTIFICATE OF ACHIEVEMENT

WMT BASIC CORE COURSE		UNITS
WMT 107	Wood Finishing	3
WMT 151	Intro to Face Frame Cabinetmaking	4
WMT 153	Intro to 32mm Cabinetmaking	4
WMT 155	Introduction to Millwork	4
WMT 181	Introduction to Computerized Operations for Woodworking	3
WMT 268A,B, or C	Production Cabinetmaking	5

Choose from the following for a minimum of (8) units:

WMT 250	Intermediate Faceframe Cabinetmaking	4
WMT 251	Advanced Faceframe Cabinetmaking	4
WMT 252	Intermediate 32mm Cabinetmaking	4
WMT 253	Advanced 32mm Cabinetmaking	4

Choose from the following for a minimum of (5) units:

WMT 103	Machine Wood Technology II	4
WMT 118	Wood Turning	2
WMT 130	Furniture Design	3
WMT 157	Passage Door	4
WMT 159	Introduction to solid Surface Fabrication	3
WMT 201	Introduction to Hand Tool	4
WMT 203	Veneering	3
WMT 258	Mantels and Wall Systems	4
TOTAL CERTIFICATE UNITS		34

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include the above Certificate of Achievement requirements, the Associate in Art Degree requirements, and electives as needed.

RECOMMENDED ELECTIVES: WMT 159, WMT 201, WMT 258

CAREER OPPORTUNITIES: Upon completion of the program, a student is prepared to design, construct, and produce cabinet products to industry standards. Cabinetmakers are employed in Woodworking, Construction, Aircraft, and many other industries. Many Cabinetmakers own and operate private business.

See Cerritos College Graduation Requirements

WOODWORKING MANUFACTURING TECHNOLOGY FURNITURE MAKING CERTIFICATE OF ACHIEVEMENT

WMT BASIC CORE COURSE		UNITS
WMT 101	Introduction to Woodworking	3
WMT 102	Machine Woodworking I	4
WMT 103	Machine Woodworking II	4
WMT 107	Wood finishing	3
WMT 130	Furniture Design	3
WMT 132	Chair Design & Construction	4
WMT 201	Woodworking with Hand Tools	4

Choose from the following for a total of (9) units:

WMT 118	Wood Turning	2
WMT 137	Outdoor Furniture	2.5
WMT 202	Adv. Machine Woodworking – Casegoods	4
WMT 203	Wood Veneering	3
WMT 211	The Workbench Class	4
WMT 233	Morris Chair	4
WMT 244	Chest of Drawers	4
WMT 246	Rocking Chair	4
WMT 248	Production Furniture	4
WMT 258	Mantels and Wall Systems	4
TOTAL CERTIFICATE UNITS		34

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 61 units to include (1) the above Certificate of Achievement requirements, (2) the Associate in Art Degree requirements, and (3) electives as needed.

RECOMMENDED ELECTIVES:WMT 233, WMT 244, WMT 248

CAREER OPPORTUNITIES: Upon completion of the program, a student is prepared to design, construct and produce furniture products to industry standards.

See Cerritos College Graduation Requirements.

ZOOLOGY
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
PHYS 101	General Physics	4
PHYS 102	General Physics	4

ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC INSTITUTIONS

California State University - Long Beach (Option within the Biology major)

MICR 200	Principles and Applications of Microbiology	5
or GEOL 101	The Earth Environment	(4)
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

California State Polytechnic University - Pomona

CHEM 211	Organic Chemistry	5
CHEM 212	Organic Chemistry	5
MATH 112	Elementary Statistics	4

Cal Poly Pomona requires additional lower division courses for the major not offered by Cerritos College.

San Diego State University (Option within the Biology major)

CHEM 211	Organic Chemistry	5
MATH 170	Analytic Geometry and Calculus I	4
and MATH 190	Analytic Geometry and Calculus II	4

University of California - Santa Barbara

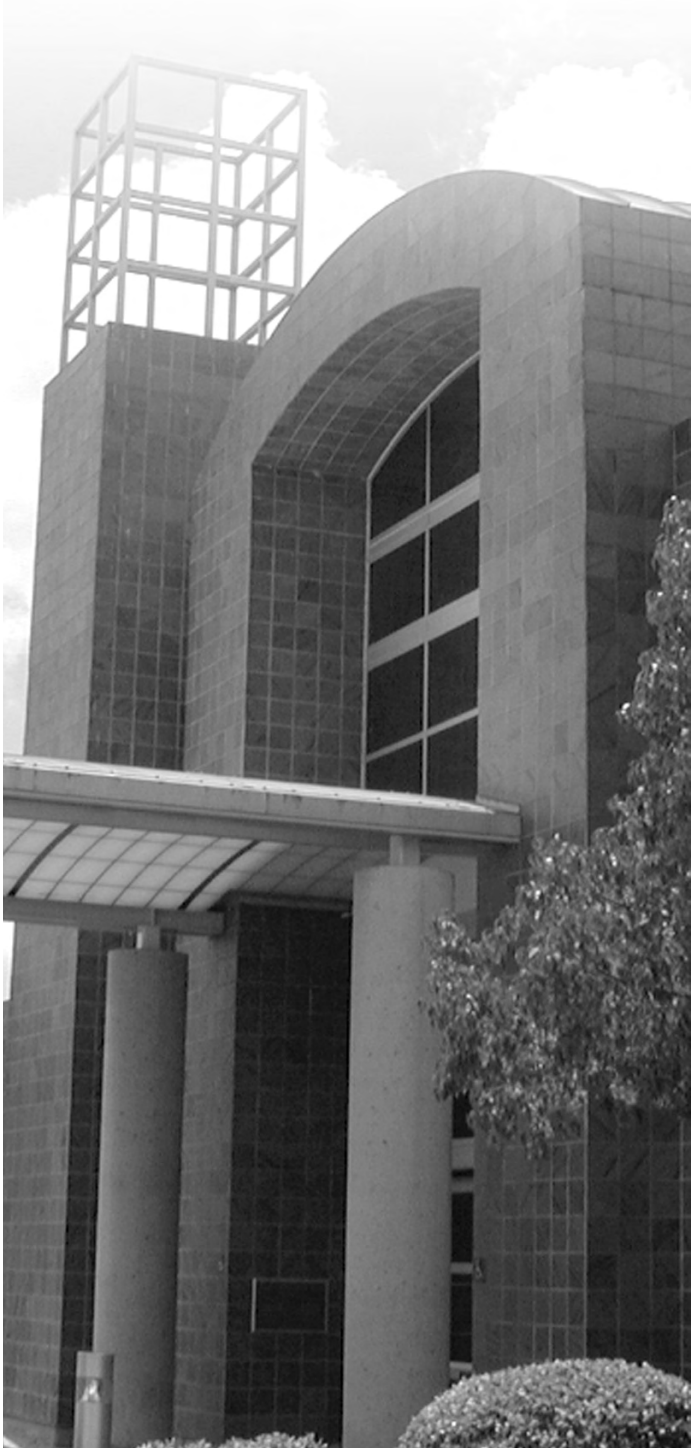
MATH 116	Calculus for Managerial, Biological and Social Science	4
or MATH 170	Analytic Geometry and Calculus I	(4)
and MATH 190	Analytic Geometry and Calculus II	(4)
MATH 112	Elementary Statistics	4
or MATH 190	Analytic Geometry and Calculus II	(4)
and MATH 240	Calculus and Differential Equations	(4)

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 156 campuses in California are using the CAN System to assist their students in the transfer process. More than 93 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 from a counselor or from the articulation officer in Counseling.

LEARNING COMMUNITY COURSE OFFERINGS

The LC suffix attached to a course number denotes that the course was offered in a Learning Communitiesformat. Courses with an LC suffix are equivalent in content to courses without the LC suffix.

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
Mass Communications
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

HPE/ATHLETICS

(562) 860-2451 EXT. 2862

Health Education
Physical Education/Athletics

HUMANITIES AND SOCIAL SCIENCES DIVISION

(562) 860-2451 EXT. 2752

Administration of Justice
Anthropology
Education/Elementary School Teaching
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
Physical Science
Physics
Zoology

TECHNOLOGY DIVISION

(562) 860-2451 EXT. 2900

Architecture
Automotive Collision Repair
Automotive Mechanical Repair
Cosmetology
Electronics
Engineering Design Technology
Machine Tool Technology
Manufacturing Technology
Metallurgy & Material Science
Plastics Manufacturing
Technical Mathematics
Welding
Woodworking Manufacturing Technologies

INNOVATION AND ACADEMIC SUPPORT

(562) 860-2451 EXT. 2797

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.

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.

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.
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.
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.
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.
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.
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.
Transfer Credit: CSU

AJ 112
INTRODUCTION TO SECURITY MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to private as well as public security management. The historical, philosophical, and legal basis for security services is examined. Emphasis is placed on the role of the security organization and security personnel in modern society, concepts of professionalism and ethics, types and functions of security operations, and career pathways in security management.
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.
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.
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 a maximum of 4 times.
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.

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.
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.
Transfer Credit: CSU

AJ 210
LEGAL ASPECTS OF SECURITY MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a study of criminal, tort, contract, and property law relative to security management. Emphasis is placed on laws of arrest, search and seizure, detention, interrogation, and use of force as well as civil liability, property and privacy rights, procurement of information, government regulations and legal consequences of impermissible investigative conduct.
Transfer Credit: CSU

AJ 211
INVESTIGATIVE TECHNIQUES FOR SECURITY MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an overview of civil as well as criminal investigations in a security management setting. Emphasis is placed on procedures, legalities, and technical aspects of specialized investigations relating to crime, pre-employment screening, sexual harassment, unlawful employment discrimination, accidents, unexplained losses, and other business activities. Proper documentation of a security investigation is also discussed.
Transfer Credit: CSU

AJ 212
PUBLIC SAFETY AND SECURITY ADMINISTRATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course examines the principles and practices of organization administration and management in public safety and security environments (law enforcement, courts, corrections, fire service, environmental safety, and security). Emphasis is placed on planning, budgeting, human resources development, operations, supervision, evaluation, leadership, and ethical decision-making.
Transfer Credit: CSU

AJ 213
PUBLIC SAFETY COMMUNICATIONS 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 deals with all aspects of public safety communications. It will cover the techniques of effectively communicating facts, information, and ideas in a clear and logical manner for a variety of public safety reports, such as crime/violation/incident reports, letters, memoranda, directives, and administrative reports. Students will gain practical experience in interviewing, note taking, report writing, and testifying.
Transfer Credit: CSU

AJ 214
INFORMATION SECURITY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on procedures, policies, and equipment designed to protect private and government proprietary and intellectual information. Emphasis is placed on physical and technical security, security management responsibilities, and countermeasures designed to protect information collection, storage, processing, and transmission in hard copy, electronic, and Internet mediums.
Transfer Credit: CSU

AJ 220 (CAN AJ 8)
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.
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.
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.
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.)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A&P 120, A&P 130, A&P 150 and A&P 151 combined: maximum credit, one course. A&P 120, A&P 130, A&P 150, A&P 151,A&P 200 and A&P 201 combined: 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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A&P 120, A&P 130, A&P 150 and A&P 151 combined: maximum credit, one course. A&P 120, A&P 130, A&P 150, A&P 151,A&P 200 and A&P 201 combined: maximum credit, 2 courses.*

A&P 150
INTRODUCTION TO HUMAN ANATOMY 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None
Recommendation: None.
This course examines the gross and microscopic anatomy of the human body using a systems approach. The course is designed for pre-nursing students, however, it also meets the needs of ther allied health programs and physical education programs.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A&P 120, A & P 130, A&P 150 and A&P 151 combined: maximum credit, one course. A&P 120, A&P 130, A&P 150, A&P 151, A&P 200 and A&P 201 combined: maximum credit, 2 courses.*

A&P 151
INTRODUCTION TO HUMAN PHYSIOLOGY 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: Satisfactory completion of A&P 150 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: CHEM 100 or equivalent with a grade of Credit or "C" or higher.
This course studies the normal functioning and integration of the organ systems in the human body. Homeostatic imbalances of many systems are examined. The course is designed for pre-nursing students; however, it also meets the needs of the allied health programs and physical education program.
*Transfer Credit: CSU;UC**
**UC credit limits may apply. A&P 120, A & P 130, A&P 150 and A&P 151 combined: maximum credit, one course. A&P 120, A&P 130, A&P 150, A&P 151, A&P 200 and A&P 201 combined: 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: A&P 120 or equivalent 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 of structure and function or cellular, tissue, organ, and system levels. This is one of the courses which satisfies the requirements of majors in four year nursing programs, physical therapy, pe/kinesiology, dental hygiene, and related fields. It is strongly recommended that students take A&P 120 prior to this course.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A &P 120, A&P 130, A&P 150, A&P 151 combined: maximum credit one course. A&P 120, A&P 130, A&P 150, A&P 151, A&P 200 and A&P 201 combined: 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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. A&P 120, A&P 130, A&P 150, A&P 151 combined: maximum credit one course. A&P 120, A&P 130, A&P 150, A&P 151, A&P 200 and A&P 201 combined: 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.)
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.)
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.
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.
Transfer Credit: CSU; UC

ANTH 170
INTRODUCTION TO
LANGUAGE AND CULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of 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 introduces the student to the study of language from an anthropological perspective. Methodology, language and cultural meaning, status and language variation, acquisition of language, multilingualism, and language and institutions will be explored within a cross-cultural perspective.
Transfer Course: 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.
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.
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.
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.
Transfer Credit: CSU

ANTH 205
THE ANTHROPOLOGY OF SEXUALITY AND GENDER **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of 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 examines the cultural construction of human sexuality and gender in an anthropological framework. Biological and cultural bases for the multiple expressions of sexuality and gender found around the world will be presented. Case studies will include food foraging, horticultural, agricultural, industrial, and post-industrial societies. A central concern is the interaction between subsistence practices, cultural economies, and status in the construction of "normal" and "abnormal" sexualities and genders. This course is not open to students who are enrolled in WS 205 or have received credit in ANTH 204. (Formerly ANTH 204)
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.
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 a maximum of 6 units.
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 4 times.

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.
*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 and ART 121: maximum credit, 18 units.*

ARCH 111
ARCHITECTURAL DRAFTING AND DESIGN I **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.
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.
*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 and ART 121: maximum credit, 18 units.*

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.
Transfer Credit: CSU

ARCH 121
ARCHITECTURAL DRAFTING AND DESIGN II **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 is a continuation of the study of methods utilized in the preparation of architectural working drawings. This course includes advanced drawing conventions, design considerations, construction specifications, and structural requirements. Analysis of the materials and construction specifications, and structural requirements. 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.
Transfer Credit: CSU

ARCH 122
ARCHITECTURAL DELINEATION 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
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.
*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 and ART 121: maximum credit, 18 units.*

ARCH 123
INTRODUCTION TO 2-D COMPUTER AIDED DRAFTING 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an introduction to two-dimensional computer aided drafting and design using AutoCAD software. Students will learn the fundamentals of creating and modifying objects, the placing of text and dimensions, working with blocks and hatches, and creating professional quality output. Hands-on exercises will be used to reinforce the functions of AutoCAD. Students who repeat this course will improve skills through further practice and remain current with latest software updates. This course may be taken a maximum of 2 times.
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.
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.
*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 and ART 121: maximum credit, 18 units.*

ARCH 213
INTRODUCTION TO 3-D COMPUTER AIDED DRAFTING 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an introduction to three-dimensional computer aided drafting and design using AutoCAD, Architectural Desktop and VIZ Render software. Students will learn the fundamentals of creating and modifying three-dimensional objects, the placing of cameras and lights, the creation and application of materials, computer rendering techniques, and creating professional quality output. Hands-on exercises will be used to reinforce the functions of the applicable software. Students who repeat this course will improve skills through further practice and remain current with latest software updates. This course may be taken a maximum of 2 times
Transfer Credit: CSU

ARCH 221
ARCHITECTURAL CAD WORKING DRAWINGS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an introduction to the production of three-dimensional building design models and working drawings using Architectural Desktop software. Students will learn the fundamentals of creating and modifying three-dimensional massing objects, creating floor plans with doors and windows, the placing of roof and stairs, generating building elevations and sections, annotating and documenting the drawing, creating a building walk-through, and creating professional quality output. Hands-on exercises will be used to reinforce the functions of Architectural Desktop. Students who repeat this course will improve skills through further practice and remain current with latest software updates. This course may be taken a maximum of 3 times
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.
Transfer Credit: CSU

ARCH 223
ARCHITECTURAL CAD 3-D BUILDING MODELING 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 provides an introduction to the production of parametric three-dimensional building models and working drawings using Revit software. Students will learn the fundamentals of creating and modifying three-dimensional topography and building mass objects, parametric building walls with floor and roof slabs, creating floor and reflected

ceiling plans, generating building elevations and sections, annotating and documenting the drawing, and creating professional quality renderings. Hands-on exercises will be used to reinforce the functions of Revit.
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 taken a maximum of 2 times.

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.
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.
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.
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.
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 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.
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.
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 couner those sterotypes 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. Writing a research paper is a significant component of the course. Reading of literature theory and criticism is required. 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: Student must be at least 18 years of age or have parental consent in order to take this course.
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 and examination of visual art, cinema, television, video, and advertising. Close attention will be given to how popular and artistic cultures shape identity and representation. Writing a research paper is a significant component of the course. College level reading is required.

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.
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.
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. Student must be at least 18 years of age or have parental consent in order to take this course.
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.
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 a maximum of 2 times.
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 photo-screenprinting, 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 a maximum of 4 times.
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.
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 digital 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 a maximum of 2 times.
Transfer Credit: CSU; UC

ART 120
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.
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.
Transfer Credit: CSU; UC

ART 130A (CAN ART 10)
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.
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.
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.
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.
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.
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.
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 a maximum of 2 times.
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. This course may be taken a maximum of 2 times.
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 taken a maximum of 2 times.
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.
Transfer Credit: CSU; UC

ART 151
CERAMICS – BEGINNING
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 course builds on the knowledge and skills learned in ART 150, Introduction to Ceramics. Emphasis is on the use of the potter's wheel. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

ART 152
CERAMICS – BEGINNING
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 ART 150, Introduction to Ceramics. Emphasis is on the use of complex hand-forming techniques. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

ART 153
CERAMICS-INTERMEDIATE WHEELTHROWING **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: ART 151 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course builds on techniques learned in ART 151, Ceramics-Beginning Wheelthrowing. Emphasis is on the use of the potter's wheel. Glaze technology is introduced. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

ART 154
CERAMICS-INTERMEDIATE HANDBUILDING **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: ART 152 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course builds on techniques learned in ART 152 Ceramics-Beginning Handbuilding. Emphasis is on the use of complex hand-forming techniques. Glaze technology in introduced. This course may be taken a maximum of 2 times.
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 a maximum of 2 times.
Transfer Credit: CSU; UC

ART 156L
CERAMICS LAB **1 UNIT**
Class hours: 4 lab
Open entry/open exit
Prerequisite: None.
Corequisite: One or more of the following courses: ART 150, ART 151, ART 152, 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 a maximum of 4 times.
Transfer Credit: CSU

ART 160
LIFE SCULPTURE **3 UNITS**
Class hours: 2 lecture/4 studio
Prerequisite: None.
Corequisite: None.
Recommendation: None.
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 a maximum of 4 times.
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.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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.
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.
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 a maximum of 2 times.
Transfer Credit: CSU

ART 183A
COMMERCIAL BRUSH LETTERING **1 UNIT**
Class hours: 1 lecture/3 lab
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 a maximum of 2 times.
Transfer Credit: CSU

ART 183B
COPPERPLATE CALLIGRAPHY **1 UNIT**
Class hours: 1 lecture/3 lab
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 a maximum of 2 times.
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.
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.
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.
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 a maximum of 2 times.
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 a maximum of 4 times.
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 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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.
Transfer Credit: CSU

ART 192B
ADVANCED PHOTOSHOP 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course covers advanced image editing of photographic media for commercial art direction using Adobe Photoshop. Emphasis is on more advanced Photoshop techniques as well as more involved design projects that will further enhance the student's portfolio. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

ART 193
MOTION PICTURE EDITING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course serves as an introduction to motion picture editing by taking students through the history of editing and analyzing specific techniques using examples of significant work. Students will apply their knowledge of editing techniques through exercises on non-linear editing tools where they will edit their own versions of scenes from common footage.
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 a maximum of 2 times.
Transfer Credit: CSU

ART 194A
ADVANCED FINAL CUT PRO 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course takes students through the more complex features of Final Cut Pro software to gain a better understanding of compositing and effects for multimedia and animation. This course may be taken a maximum of 2 times.
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 a maximum of 2 times.
Transfer Credit: CSU

ART 196
WEB DESIGN WITH FLASH AND DREAMWEAVER 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 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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. Student must be at least 18 years of age or have parental consent in order to take this course.
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 a maximum of 2 times.
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 2 times.
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 a maximum of 4 times.
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 screenprinting 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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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. Student must be at least 18 years of age or have parental consent in order to take this course.
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 a maximum of 2 times.
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 a maximum of 2 times.
Transfer Credit: CSU, UC credit determined after admission

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. Student must be at least 18 years of age or have parental consent in order to take this course.
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 a maximum of 2 times.
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 taken for a maximum of 2 times.
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 taken for a maximum of 2 times.
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 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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 3 times.
Transfer Credit: CSU; UC

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.
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.
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 a maximum of 2 times.
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 a maximum of 3 times.
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.
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.
*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.
*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: ASTR 101, ASTR 102, ASTR 103, ASTR 104, or ASTR 106 or equivalent with a grade of Credit or "C" or higher, or concurrent enrollment.
Corequisite: None
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.
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 a maximum of 2 times.

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 a maximum of 2 times.

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 placed 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 a maximum of 2 times.

AB 51
NON-STRUCTURAL
DAMAGE REPAIR 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
This course 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.

AB 52
STRUCTURE DAMAGE REPAIR 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None
Corequisite: AB 51 or equivalent with a grade of Credit or "C" or higher or prior completion.
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 a maximum of 2 times.

AB 53
SUSPENSION, ALIGNMENT
AND POWER TRAIN DAMAGE 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: AB 51 or equivalent with a grade of Credit or "C" or higher or prior completion.
This course introduces students to suspension control point 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 a maximum of 2 times.

AB 54
ADVANCED DESIGN
AUTOMOTIVE PANEL REPAIR 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: AB 51 or equivalent with a grade of Credit or "C" or higher or prior completion.
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 a maximum 2 times.

AB 55
STRUCTURAL PANEL
REPLACEMENT 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: AB 51 or equivalent with a grade of Credit or "C" or higher or prior completion.
This curse emphasizes frame and structural repair. Instruction includes repair and replacement of structural body panels, remove and replacement of power train and supports, gauging and analysis of major structural damage, plus the measurement and alignment of strut towers. Appropriate safety related instructions will be included in each segment. This course may be taken a maximum of 2 times.

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.

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 a maximum of 3 times.

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 a maximum of 3 times.
Transfer Credit: CSU

AB 59A
COMPUTERIZED
MEASURING TRAINING 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: None.
Corequisite: AB 51 or equivalent, with a grade of Credit or "C" or higher or prior completion
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 a maximum of 2 times.

AB 59B
UNITSIZED 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 a maximum of 2 times.

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 a maximum of 2 times.

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 a maximum of 2 times.

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 a maximum of 2 times.

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 a maximum of 2 times.

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 a maximum of 2 times.

AB 61
PREPARATION AND
SPOT REFINISHING 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: AB 51 or equivalent, with a grade of Credit or "C" or higher or prior completion.
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-coats, and basic material problems encountered in today's refinishing market. This course may be taken a maximum of 2 times.

AB 62
OVERALL AND
MULTI-COAT REFINISHING 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: AB 51 or equivalent with a grade of Credit or "C" or higher or prior completion.
This course develops the skills of the professional automotive refinisher in overall and multi-coat 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 a maximum of 2 times.

AB 63
PRODUCTION REFINISHING 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: AB 51 or equivalent with a grade of Credit or "C" or higher or prior completion.
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, colors, 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 a maximum of 2 times.

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 a maximum of 3 times.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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 a maximum of 2 times.

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 a maximum of 4 times.

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 a maximum of 4 times.

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 a maximum of 2 times.

AB 76
PARTIAL-PANEL FABRICATION 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: AB 75 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course furthers student learning in the area of automotive sheet metal design and fabrication. Students will learn to design and fabricate portions of sheet metal panels to be replaced on vehicles. Reproduction of more complex angles and shapes will be introduced. Use of specific sheet metal design and fabrication tools and equipment with appropriate techniques will be included. This course may be taken a maximum of 2 times.

AB 77
FULL-PANEL FABRICATION 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: AB 75 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
In this course student learning is elevated to the level of full-panel sheet metal design and fabrication. Complete sheet metal panel fabrication will be demonstrated using pre-determined shapes and forms. Formation of compound angles and complex shapes encompassing an entire panel will be addressed. Included are the continued application and use of advanced sheet metal fabrication tools and equipment. This course may be taken a maximum of 2 times.

AB 79
AUTOMOTIVE FABRICATION PROJECTS 4.5 UNITS
Class hours: 3 lecture/5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: AB 51 or AB 75 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course allows students to hone hands-on skills while completing automotive body panel fabrication projects. Students will identify and select specific projects that are relevant to the subject matter being taught. This course may be taken a maximum of 2 times.

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 a maximum of 4 times.

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 a maximum of 2 times.

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 a maximum of 2 times.

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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 a maximum of 2 times.

AB 83A
COMPUTERIZED
DAMAGE ESTIMATING-ADP 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Proficient in MS Windows software applications.
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 a maximum of 2 times.

AB 83C
COMPUTERIZED
DAMAGE ESTIMATING-CCC 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Proficient in MS Windows software application.
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 a maximum of 2 times.

AB 83M
COMPUTERIZED DAMAGE
ESTIMATING-MITCHELL 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Proficient in MS Windows software applications.
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 a maximum of 2 times.

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 a maximum of 4 times.

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 a maximum of 4 times.

AB 181
NON-STRUCTURAL DAMAGE
ESTIMATING 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Proficient in MS Windows software applications.
This is an entry-level course for students wanting to learn to estimate non-structural (minor) automotive damage from collisions. Emphasis is on vehicle construction and structural design, repair methodology, vehicle component and systems identification, and in developing appropriate "judgement repair times" (estimated repair times for damage). Students learn to properly format hand-written estimates identifying the cost of parts, labor, materials, and sublet and other charges required to return damaged vehicles to factory specifications. Hands-on demonstration of repair techniques helps students increase their knowledge of repair processes recommended in their damage estimates. Students use collision estimating guides to establish parts prices and industry standard labor times for replacement and refinishing of damaged parts; additionally, students learn to use "Procedure Pages" in the estimating guides for processes not included in the standard times listed in the guide. Computerized estimating is introduced as students demonstrate proficiency in developing concise hand-written estimates. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

AB 182
STRUCTURAL
DAMAGE ESTIMATING 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: None.
Recommendation: Proficient in MS Windows software applications.
This course extends student skills in collision damage estimating of more complex areas of structural, mechanical, and electrical damage to vehicles. Areas of study include expanded understanding of collision theory, damage analysis fundamentals, visual inspection process, measuring and analyzing structural damage, suspension and mechanical systems damage estimating, build tolerances, and safety systems as related to severely damaged vehicles. Other topics include estimator job functions, methods of determining customer satisfaction, regulatory compliance issues, and ethics within the collision repair industry. This course may be taken a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 2 times.
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
ANALYSIS 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: Proficient in MS Windows software applications.
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 a maximum of 2 times.
Transfer Credit: CSU

AB 287
ADVANCED COLLISION REPAIR
MANAGEMENT 2 UNITS
Class hours: 2 lecture
Prerequisite: 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 a maximum of 4 times.
Transfer Credit: CSU

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY

(Technology Division)

AUTO 1
ENGINE MAINTENANCE 0.5 UNIT
Class hours: .5 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental course 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.

AUTO 2
FUEL SYSTEMS 0.5 UNIT
Class hours: 5 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental course 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.

AUTO 3
LUBRICATION AND COOLING 0.5 UNIT
Class hours: 5 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental course 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.

AUTO 4
ELECTRICAL SYSTEMS 0.5 UNIT
Class hours: 5 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental course 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 and enter the work environment with basic skills.

AUTO 5
BRAKES AND SUSPENSION 0.5 UNIT
Class hours: 5 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental course 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.

AUTO 6
TRANSMISSION AND DRIVE TRAIN 0.5 UNIT
Class hours: 5 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental course 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.

AUTO 7
AIR CONDITIONING AND HEATING 0.5 UNIT
Class hours: 5 lecture/1 lab
Prerequisite: None.
Corequsiite: None.
Recommendation: None.
This is a fundamental course in automotive air conditioning dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. The course is designed to allow students to become familiar with automotive heating and air conditioning and enter the work environment with basic skills.

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.

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.

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.

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.

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.

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.

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.

AUTO 34
FORD MAINTENANCE AND LIGHT REPAIR FOR ELECTRICAL AND ELECTRONIC SYSTEMS 2.5 UNITS
Class hours: 2 lecture/2 lab
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 a maximum of 2 times.

AUTO 35
FORD MAINTENANCE AND LIGHT REPAIR FOR STEERING AND SUSPENSION SYSTEMS 2.5 UNITS
Class hours: 2 lecture/2 lab
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 a maximum of 2 times.

AUTO 36
FORD MAINTENANCE AND LIGHT REPAIR FOR BRAKE SYSTEMS **2.5 UNITS**
Class hours: 2 lecture/2 lab.
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 a maximum of 2 times.

AUTO 37
FORD MAINTENANCE AND LIGHT REPAIR FOR CLIMATE CONTROL SYSTEMS **2.5 UNITS**
Class hours: 2 lecture/2 lab
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 units. This course may be taken a maximum of 2 times.

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.

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.

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 taken a total of 2 times.

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 a maximum of 3 times.

AUTO 60
INTRODUCTION TO INTELLIGENT TRANSPORTATION SYSTEMS (ITS AND TELEMATICS) **3 UNITS**
Class hours: 3 lecture
Prerequisite; None
Corequisite: None.
Recommendation: None.
This survey course introduces the student to Intelligent Transportation Systems (ITS) and telematics. 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 (Formerly AUTO 81)

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 a maximum of 4 times.

AUTO 80
BUREAU OF AUTOMOTIVE REPAIR (BAR) ASE ALTERNATIVE COURSES FOR ADVANCED EMISSIONS SPECIALIST **5 UNITS**
Class hours: 4 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Appropriate work experience.
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
POWERTRAIN CONTROL MANAGEMENT SCOPE TESTING 2 UNITS
Class hours: 2 lecture/.5 lab
Prerequisite: None.
Corequisite: None
Recommendation: None.
This is a course in the theory and practice of powertrain control management (PCM) scope testing. Hand-held oscilloscopes and scanners will be used to analyze PCM input and output signals to various actuators while comparing this data to manufacturers' specifications.

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.
Transfer Credit: CSU

AUTO 110
AUTOMOTIVE ENGINES 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
This is a theory/practical course in Automotive Engine Repair to include operating principles and descriptions of all components. The emphasis is on diagnosis and measurement of internal engine components. Complete disassembly and reassembly of engines will be accomplished with the emphasis on manufacturer's specialty tools and techniques of overhead cam engines. (Formerly AUTO 140)
Transfer Credit: CSU

AUTO 111
AUTOMOTIVE ENGINES 4 UNITS
Class hours: 10 lecture/10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
This is a theory/practical course in Automotive Engine Repair that includes operating principles and descriptions of all components. The emphasis is on diagnosis and measurement. Complete disassembly and reassembly of engines will be accomplished with the emphasis on manufacturer's specialty tools and techniques of overhead cam engines. Course content will be presented on a single manufacturer's engine. (Formerly AUTO 141)
Transfer Credit: CSU

AUTO 120
AUTOMATIC TRANSMISSIONS/ TRANSAXLES 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
Recommendation: AUTO 110 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 transaxles are studied and applied in the shop. This course may be taken a maximum of 2 times. (Formerly AUTO 226)
Transfer Credit: CSU

AUTO 121
DRIVETRAIN TRANSMISSIONS AND AXLES 6 UNITS
Class hours: 5 lecture/5 lab
Prerequisite: None.
Corequisite: AUTO 73/74.
Recommendation: AUTO 181 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, transaxle, transfer case, driveline, drive-axle, differential, including diagnosis and service. This course is taught using specified manufacturer's components and materials. (Formerly AUTO 161)
Transfer Credit: CSU

AUTO 130
MANUAL DRIVETRAIN AND AXLES 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
This 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 a maximum of 2 times. (Formerly AUTO 160)
Transfer Credit: CSU

AUTO 140
AUTOMOTIVE STEERING AND SUSPENSION 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a course in the theory and practice of steering, suspension, and wheel alignment. It includes operating principles, component description, diagnosis, and service. Alignment instruction includes electronic four-wheel alignment. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

AUTO 150
AUTOMOTIVE BRAKES 5 UNITS
Class hours: 4 lecture/4lab
Prerequisite: None.
Recommendation: 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 braking systems. It includes operating principles, component description, diagnosis, and service. Brake service includes antilock braking systems. This course may be taken a maximum of 2 times. (Formerly AUTO 120)
Transfer Credit: CSU

AUTO 151
AUTOMOTIVE ALIGNMENT BRAKE AND SUSPENSION 6 UNITS
Class hours: 5 lecture/5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in AUTO 73/74.
This is a theoretical and 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 the trade. (Formerly AUTO 121)
Transfer Credit: CSU

AUTO 160
AUTOMOTIVE ELECTRICITY 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a theory/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 130)
Transfer Credit: CSU

AUTO 161
AUTOMOTIVE ELECTRICITY 7 UNITS
Class hours: 6 lecture/4 lab
Prerequisite: None.
Corequisite: AUTO 73/74.
Recommendation: AUTO 100 or AUTO 151

or equivalent with a grade of Credit or "C" or higher.
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 131)
Transfer Credit: CSU

AUTO 170
AUTOMOTIVE AIR CONDITIONING **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 160 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 a maximum of 2 times. (Formerly AUTO 180)
Transfer Credit: CSU

AUTO 179
AUTOMOTIVE AIR CONDITIONING **4 UNITS**
Class hours: 10 lecture/10 lab
Prerequisite: AUTO 81 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 51)
Transfer Credit: CSU

AUTO 180
ELECTRONIC ENGINE MANAGEMENT SYSTEMS **5 UNITS**
Class hours: 4 lecture/4 lab
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a theoretical/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 along with OBD-I and OBD-II systems operation and comparisons. This course may be taken a maximum of 2 times. (Formerly AUTO 233)
Transfer Credit: CSU

AUTO 181
ELECTRONIC ENGINE MANAGEMENT SYSTEMS - CORPORATE **6 UNITS**
Class hours: 5 lecture/5 lab
Prerequisite: None.
Corequisite: AUTO 73/74.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
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 231)
Transfer Credit: CSU

AUTO 182
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 application of Compressed Natural Gas (CNG) as an alternative fuel for the internal combustion engine. Propane, methanol, and hydrogen are also discussed. (Formerly AUTO 192)
Transfer Credit: CSU

AUTO 190
AUTOMOTIVE MANAGEMENT **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
This course is 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 estimation, and efficient, effective use of time and space.
Transfer Credit: CSU

AUTO 192
AUTOMOTIVE CORPORATE TRENDS AND CAREERS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is the introductory course in the professional automotive sales and service corporate environment. It provides students interested in a management career with a detailed overview of the automotive industry and the opportunities available. Manufacturers' market positioning, product philosophy, advertising themes, and other topics will be covered (Formerly AUTO 280)
Transfer Credit: CSU

AUTO 193
AUTOMOTIVE SERVICE INFORMATION 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: None.
Recommendation: Current automotive student or employed as an automotive service professional.
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 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 210
AUTOMOTIVE MACHINE SHOP 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit of "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 such as honing techniques, cylinder bores and crankshaft line boring will be included. This course may be taken a maximum of 2 times. (Formerly AUTO 150)
Transfer Credit: CSU

AUTO 211
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.
Recommendation: Appropriate work experience.
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 will include flow bench testing of cylinder heads and the operation of the engine dynamometer. This course may be taken a maximum of 2 times. (Formerly AUTO 224)
Transfer Credit: CSU

AUTO 212
AUTOMOTIVE SPECIALTY 2 UNITS
Class hours: 6 lab
Prerequisite: AUTO 210 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 a maximum of 3 times. (Formerly AUTO 245L)
Transfer Credit: CSU

AUTO 260
ADVANCED
ELECTRICAL SYSTEMS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 160 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 repairs. (Formerly AUTO 223)
Transfer Credit: CSU

AUTO 280
DIAGNOSTIC ENGINE
PERFORMANCE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This is a theory/practical course in diagnosing automotive drivability problems. Areas such as ignition, carburetion, automotive computers, electronic engine controls and on-board diagnostic systems will be included. This course may be taken a maximum of 2 times. (Formerly AUTO 243)
Transfer Credit: CSU

AUTO 281
EMISSION CONTROL
SYSTEMS - 1997 STANDARDS 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
Recommendation: AUTO 100 or equivalent with a grade of Credit or "C" or higher.
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 a maximum of 2 times. (Formerly AUTO 170)
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 a maximum of 2 times.
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.
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.
*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.
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.
*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 a maximum of 2 times.
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.
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.
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.
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 a maximum of 4 times.
Transfer Credit: CSU, UC credit determined after admission

NON CREDIT (ADULT EDUCATION) CLASS

AED 90.1
SUPERVISED SCIENCE TUTORIAL 0 UNIT
Class hours: 2 lab
Open entry/open exit
Prerequisite: None.
Corequisite: Enrollment in any biology course.
Recommendation: None.
This course is designed to facilitate the learning of biological principles and techniques through individualized and mediated instruction. It is open to any student enrolled in any biology course. (Formerly BIOL 9T, CHEM 9T)

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.
Transfer Credit: CSU; UC

BUSINESS ACCOUNTING

(Business Division)

BUSA 1T (Not degree applicable)
ACCOUNTING
MICROCOMPUTER TUTORIAL 0.5 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. This course may be taken a maximum of 4 times. This course is offered on a credit/no credit basis only.

BUSA 2T (Not degree applicable)
ACCOUNTING TUTORIAL 0.5 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. This course may be taken a maximum of 4 times. This course is offered on a credit/no credit basis only.

BUSA 51
VOLUNTEER INCOME TAX ASSISTANCE 1.5 UNITS
Class hours: 1 lecture/1.5 lab
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 2 UNITS
Class hours: 1.5 lecture/2.0 lab
Prerequisite: None.
Corequisite: None
Recommendation: None.
This course introduces QuickBooks 6.0, a complete accounting software system for small businesses.

BUSA 61
TURBO TAX ACCOUNTING 2 UNITS
Class hours: 1.5 lecture/2 lab
Prerequisite: None.
Corequisite: None
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.

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.
Transfer Credit: CSU

BUSA 101 (CAN BUS SEQ A) (CAN BUS 2)
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.
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.
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.
Transfer Credit: CSU

BUSA 131
COMPUTERIZED ACCOUNTING-IBM 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 100 or BUSA 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
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.
Transfer Credit: CSU

BUSA 133
SPREADSHEET ACCOUNTING I 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
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.
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.
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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 units 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 a maximum of 3 times.
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 a maximum of 3 times.
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 4 times.
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.
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).
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: 1.5 lecture
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 a maximum of 2 times.
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.
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.
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.
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.
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.
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.
Transfer Credit: CSU

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.

BUSF 51
RETIREMENT PLANNING AND INVESTING 1.5 UNITS
Class hours: 1.5 lecture
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.

BUSF 52
BUSINESS MATHEMATICS FOR ACCOUNTING APPLICATIONS 1.5 UNITS
Class hours: 1.5 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to teach students basic mathematical calculations used in business, finance, and accounting and introduces them to the IBM compatible computer and standard spreadsheet software. Topics covered include fractions and percentages, sales and purchasing cycles, sales tax, markups and markdowns, simple and compound interest, and finance charges.

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.
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.
Transfer Credit: CSU

BUSINESS ADMINISTRATION

(Business Division)

BA 50
MATH FOR BUSINESS AND FINANCE **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.

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.

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.
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.

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.

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.

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)

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).

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).

BA 62
BUSINESS ON THE INTERNET **1.5 UNITS**
Class hours: 1.5 lecture
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: 1.5 lecture
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 65
NMA ROLE OF THE SUPERVISOR **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course examines the supervisor's role, including income, status, and psychological rewards. It also examines the characteristics that effective supervisors have in common which are primarily centered on people skills and managerial capabilities. We will explore the context and basic knowledge factors that determine supervisory performance.

BA 66
NMA MANAGEMENT PRINCIPLES **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.

Corequisite: None.
Recommendation: None.
This course is designed to present practical ideas and tools for managers, supervisors, and team leaders; build a foundation of management concepts that will prepare the participant for further studies; and help each student develop a positive and constructive philosophy of management.

BA 67
NMA COMMUNICATION SKILLS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will equip people with communication skills and concepts that will make them more effective as leaders, supervisors, and managers. It deals with basic communication concepts demonstrated useful for leaders and managers at all levels. This course includes the oral communication skills (talking and listening) and the written skills (reading and writing).

BA 68
NMA INTERPERSONAL RELATIONSHIP SKILLS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will equip people with interpersonal relationship skills and concepts that will make them more effective as managers. The emphasis is on learning the fundamentals and techniques of relating to others, presenting up-to-date concepts that help managers develop themselves and become more effective in working with people.

BA 69
NMA DEVELOPING PERFORMANCE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the development of excellence in performance. It deals with various facets of individual, team, and work units performance of concern to managers, supervisors, and team leaders in various types of business organizations. This course addresses contemporary approaches and concepts, such as, reengineering, empowerment, and a useful system for managing performance.

BA 75
NMA NEW EMPLOYEE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequesite: None.
Recommendation: None.
This course focuses on how to work effectively with a new employee resulting in substantial returns in performance, loyalty, and to cooperation within the organization.

BA 76
NMA COACHING/COUNSELING 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course emphasizes the manager's role in the development of a skill employee. This course explains how managers coach and counsel employees effectively. It also teaches the manager nonjudgmental communication and how to actively listen and provide feedback.

BA 77
NMA LEADERSHIP DEVELOPMENT 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to help a student understand and develop an awareness of a leader's role; improve leadership skills at all levels; establish leadership ideals and develop qualities needed to achieve them; understand leadership styles and increase a person's capability to respond accordingly; and develop strategies for effectiveness as a leader.

BA 78
NMA BUSINESS CONCEPTS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course covers the basic business concepts that are essential to successfully understand how a business operates. It includes an understanding of the nature of a business and how information effectively flows through the organization. It also discusses how the economic system impacts an individual business.

BA 79
NMA LAW FOR THE SUPERVISOR 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide those in supervision with a background of law that is pertinent to their business context. Emphasis is on understanding law's impact on the supervisor instead of the learning of specific legal terminology.

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.
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.
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.
Transfer Credit: CSU

BA 104
MANAGING CULTURAL DIVERSITY 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.
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.
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.
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.
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.
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.
Transfer Credit: CSU

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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. BL 110, BL 111, 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, warehousing, sources and uses of marketing information, and marketing of agricultural products.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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 units 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 a maximum of 3 times.
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 a maximum of 3 times.
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 4 times.
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 a maximum of 4 times.
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.
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.
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.
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).
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).
Transfer Credit: CSU

BUSINESS COMMUNICATION

(Business Division)

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.

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: 1.5 lecture
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.
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.
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.
Transfer Credit: CSU

BCOM 151
COMPUTER APPLICATIONS/ BUSINESS DOCUMENTS 1 UNIT
Class hours: 1 lecture/.5 lab
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.
Transfer Credit: CSU

BCOM 152
JOB SEARCH IN THE BUSINESS FIELD 1.5 UNITS
Class hours: 1.50 lecture
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 a maximum of 2 times.
Transfer Credit: CSU

BUSINESS COMPUTERIZED OFFICE TECHNOLOGIES

(Business Division)

BCOT 3T (Not degree applicable)
BUSINESS COMMUNICATIONS, WORD PROCESSING, OR KEYBOARDING TUTORIAL 0.5 UNIT
Class hours: 2 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. This course is open to any student enrolled in BCOM business communications, any BCOT word processing, or keyboarding course. This course may be taken a maximum of 4 times. This course course is offered on a crdit/no credit basis only.

BCOT 5A (Not degree applicable)
WORD MODULE 0.5 UNIT
Class hours: .33 lecture/.56 lab
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 a maximum of 1 time.

BCOT 5B (Not degree applicable)
EXCEL MODULE 0.5 UNIT
Class hours: .33 lecture/.56 lab
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 a maximum of 1 time.

BCOT 5D (Not degree applicable)
POWERPOINT/ INTERNET MODULE 0.5 UNIT
Class hours: .33 lecture/.56 lab
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 a maximum of 1 time.

BCOT 7T
INDIVIDUALIZED COMPUTER LITERACY SKILLS 0.5 UNIT
Class hours: 1.5 lab open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course increases the business students knowledge of computer technology resources on campus, improves student use of computer technology for successful completion of technology-based course assignments, and improves student confidence in utilizing computer technology. Special attention will be given to skills necessary for success in distance education courses. This course is offered on a credit/no credit basis only.

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.

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.

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.

BCOT 53
ADVANCED DATA ENTRY 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: BCOT 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Ability to type 30 wpm and familiarity with the microcomputer, email, and email attachments, and to be able to complete assignments in a timely manner.
This course is designed for additional training and skills for advanced keyboarding and data entry problems. Students will learn to proofread, evaluate, and create a project report reflecting the quality and accuracy of the keyboarding projects. The students will continue to improve data entry skills by working with projects more complex then those encountered in BCOT 52. Data entry jobs will be multi-face utilizing multi-form screen input. Students will utilize a full screen data entry terminal. This course can be taken in a traditional classroom setting or online environment.

BCOT 60
TELEPHONE TECHNIQUES/ CUSTOMER SERVICE 1 UNIT
Class hours: 1 lecture
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.

BCOT 62
COMPUTER KEYBOARDING 1 UNIT
Class hours: 1 lecture/.5 lab
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.

BCOT 63
KEYBOARDING SPEED/ CONTROL BUILDING 1 UNIT
Class hours: 1 lecture/.5lab
Prerequisite: None
Recommendation: Knowledge of keyboard and key strokes. 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 a maximum of 3 times. This course can be taken in either a traditional or an online environment. (Formerly BCOT 135)

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.

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.

BCOT 72
INTRODUCTION TO PERSONAL DIGITAL ASSISTANT 0.5 UNIT
Class hours: .67 lecture/.33 lab
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.

BCOT 81
LEGAL OFFICE PROCEDURES 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Recommendation: BCOT 131 or equivalent with a grade of Credit or "C" or higher. Concurrent enrollment in BCOT 3T.
This course is designed to prepare students for employment as legal secretaries. It emphasizes procedures, preparations of calendars, formatting 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 requirements for Court Reporting certification. This course can be taken in a traditional classroom setting or online environment.

BCOT 82
SPANISH LEGAL OFFICE TERMINOLOGY/ VOCABULARY 1.5 UNITS
Class hours: 1.5 lecture
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.

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.

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.

BCOT 90
MICROSOFT WORD CORE LEVEL 1.5 UNITS
Class hours: 1.5 lecture/1 lab
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
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: 1.5 lecture/ 1lab
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.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

BCOT 93
MICROSOFT EXCEL
EXPERT LEVEL **1.5 UNITS**
Class hours: 1.5 lecture/1 lab
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: 1.5 lecture/1 lab
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: 1.5 lecture/1 lab
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.

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 the opportunity to learn WordPerfect for Windows, which is an advanced word processing program. This course will further prepare students for a successful business career. This course can be taken in either a traditional or an online learning environment.
Transfer Credit: CSU

BCOT 110
DESKTOP PUBLISHING–
WORDPERFECT FOR
WINDOWS **1.5 UNITS**
Class hours: 1.5 lecture/1 lab
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.)
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).
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.
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: 1.5 lecture/1 lab
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.)
Transfer Credit: CSU

BCOT 117
DESKTOP PUBLISHING– MICROSOFT PUBLISHER 1.5 UNITS
Class hours: 1.5 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in BCOT 3T.
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.
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.
Transfer Credit: CSU

BCOT 131
BEGINNING COLLEGE KEYBOARDING & DOCUMENT PROCESSING 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.
Transfer Credit: CSU

BCOT 132
COLLEGE KEYBOARDING & DOCUMENT PROCESSING REVIEW 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: None.
Recommendation: Computer keyboard skills and ability to type 25 wpm. Concurrent enrollment in BCOT 3T.
This course provides a review for those students who have had previous keyboarding and document processing experience. Touch control of the keyboard and proper typing techniques; keyboarding speed and accuracy; and the application of basic word processing computer skills in the formatting of reports, letters, memos, tables, e-mail correspondence, and other types of either a traditional or in an online learning environment. (Formerly BCOT 61)
Transfer Credit: CSU

BCOT 133
ADVANCED COLLEGE KEYBOARDING & DOCUMENT PROCESSING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BCOT 131 or BCOT 132 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.
Transfer Credit: CSU

BCOT 155
ADMINISTRATIVE SECRETARIAL PROCEDURES 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Recommendation: BCOT 131 or equivalent with a grade of Credit or "C" or higher. 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. This course can be taken in a traditional classroom setting or online environment.
Transfer Credit: CSU

BCOT 161
PRINCIPLES OF FILING 1 UNIT
Class hours: 1 lecture/1.5 lab
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.
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.
Transfer Credit: CSU

BCOT 163
MACHINE TRANSCRIPTION 4.5 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BCOT 131 or BCOT 132, BCOT 162, and BCOM 46, or equivalent courses with grades of Credit or "C" or higher.
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.
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 4 times.
Transfer Credit: CSU

BUSINESS COURT REPORTING/ COMPUTERIZED SHORTHAND

(Business Division)

BUSC 50
COMPUTER-AIDED PROOFREADING 2 UNITS
Class hours: 2 lecture/1lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 57A, BUSC 142, and BUSC 192 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 a maximum of 2 times.

BUSC 57A
BEGINNING AURAL LANGUAGE SKILLS FOR COURT REPORTERS 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 140, BUSC 141, and BCOM 46 or equivalent with grades 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.

BUSC 57B
ADVANCED AURAL LANGUAGE SKILLS FOR COURT REPORTERS 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BCOM 46, BUSC 57A, BUSC 140, and BUSC 141 or equivalent with grades 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.

BUSC 113
LEGAL TERMINOLOGY **3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Recommendation: 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.
Transfer Credit: CSU

BUSC 114
MEDICAL TERMINOLOGY FOR MACHINE SHORTHAND **3 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Recommendation: BUSC 142 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.
Transfer Credit: CSU

BUSC 115
MEDICAL SHORTHAND FOR COURT REPORTERS **4 UNITS**
Class hours: 4 lecture/1 lab
Prerequisite: None.
Recommendation: BUSC 114, BUSC 143 or equivalent with grades 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.
Transfer Credit: CSU

BUSC 116
INTRODUCTION TO COURTROOM PROCEDURES **4 UNITS**
Class hours: 4 lecture/2 lab
Prerequisite: None.
Recommendation: BUSC 119C, BUSC 114 and BUSC 192 or equivalent with grades 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.
Transfer Credit: CSU

BUSC 118
DEPOSITION PROCEDURES, CODES AND ETHICS **4 UNITS**
Class hours: 4 lecture/2 lab
Prerequisite: None.
Recommendation: 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.
Transfer Credit: CSU

BUSC 119A
BEGINNING COMPUTER-AIDED TRANSCRIPTION **3 UNITS**
Class hours: 2 lecture/3.5 lab
Prerequisite: None.
Corequisite: BUSC 1T.
Recommendation: BUSC 141, BUSC 142 or equivalent with grades of Credit or "C" or higher.
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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 119B
INTERMEDIATE COMPUTER-AIDED TRANSCRIPTION **3 UNITS**
Class hours: 2 lecture/3.5 lab.
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119A and BUSC 143 or equivalent with a grade of Credit or "C" or higher.
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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 119C
ADVANCED COMPUTER-AIDED TRANSCRIPTION **3 UNITS**
Class hours: 2 lecture/3.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119B, BUSC 144 or equivalent with a grade of Credit or "C" or higher.
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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 119D
BASIC CONCEPTS OF REALTIME **3 UNITS**
Class hours: 2 lecture/3.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C or equivalent with a grade of Credit or "C" or higher.
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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 119E
COMPUTER-AIDED MEDICAL DICTIONARY BUILD **3 UNITS**
Class hours: 2 lecture/3.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 114 and BUSC 119B or equivalents with grades 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 119F
COMPUTER-AIDED LEGAL DICTIONARY BUILD **3 UNITS**
Class hours: 2 lecture/3.5 lab
Prerequisite: None.
Corequisite: BUSC 1T.
Recommendation: BUSC 119B 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 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 125
COMPUTERIZED SHORTHAND REALTIME PRACTICUM I (100-130 WPM) **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C, BUSC 119D and BUSC 143 or equivalent with grades 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 126
COMPUTERIZED SHORTHAND REALTIME PRACTICUM II (120-150 WPM) **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C, BUSC 119D and BUSC 144 or equivalent with grades 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 127
COMPUTERIZED SHORTHAND REALTIME PRACTICUM III (140-170 WPM) **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C, BUSC 119D and BUSC 145 or equivalent with grades 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 128
COMPUTERIZED SHORTHAND REALTIME PRACTICUM IV (160-190 WPM) **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C, BUSC 119D and BUSC 146 or equivalent with grades 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 a maximum of 4 times.
Transfer Credit: CSU

BUSC 129
COMPUTERIZED SHORTHAND REALTIME PRACTICUM V (180-210 WPM) **5 UNITS**
Class hours: 2 lecture/10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C, BUSC 119D and BUSC 147 or equivalent with grades 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 a maximum of 4 times.
Transfer Credit: CSU

BUSC 130
COMPUTERIZED SHORTHAND REALTIME PRACTICUM VI (190-225 WPM) **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C, BUSC 119D and BUSC 148 or equivalent with grades 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 a maximum of 4 times.
Transfer Credit: CSU

BUSC 139
EXPLORING CAREER OPPORTUNITIES IN COURT REPORTING **1 UNIT**
Class hours: 1 lecture
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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 140
COMPUTERIZED SHORTHAND THEORY **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: BUSC 141.
Recommendation: BCOM 46 or equivalent with a grade of Credit or "C" or higher. 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.
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 **4 UNITS**
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: None.
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 a maximum of 2 times. This course may be taken a maximum of 3 units if a student has previously received credit in BUSC 141A and BUSC 141B.
Transfer Credit: CSU

BUSC 141A
COMPUTERIZED SHORTHAND THEORY REVIEW/SKILL DEVELOPMENT A **1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: May be taken concurrently with BUSA 140A. 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 a maximum of 3 times. 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: None.
Recommendation: May be taken concurrently with BUSC 140B. 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 a maximum of 3 times. 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 **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119A, BUSC 140 or equivalent with grades of Credit or "C" or higher. May be taken concurrently with BUSC 141 and BUSC 143. 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 143
COMPUTERIZED SHORTHAND SPEED BUILDING I **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119B or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 142 and BUSC 144. 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 144
COMPUTERIZED SHORTHAND SPEED BUILDING II **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119C with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 143 and BUSC 145. 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 145
COMPUTERIZED SHORTHAND SPEED BUILDING III **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119D with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 144 and BUSC 146. 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 146
COMPUTERIZED SHORTHAND SPEED BUILDING (140-170 WPM) **4.5 UNITS**
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 145 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 147. 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 a

maximum of 3 times.
Transfer Credit: CSU

BUSC 147
COMPUTERIZED SHORTHAND SPEED BUILDING (160-190 WPM) 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 185 with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 146 and BUSC 148. 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 a maximum of 4 times.
Transfer Credit: CSU

BUSC 148
COMPUTERIZED SHORTHAND SPEED BUILDING (180-210 WPM) 4.5 UNITS
Class hours: 2 lecture/10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 185 with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 147 and BUSC 149. 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 a maximum of 4 times.
Transfer Credit: CSU

BUSC 149
COMPUTERIZED SHORTHAND SPEED BUILDING (190-225 WPM) 5 UNITS
Class hours: 2 lecture/10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 185 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 148. 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 a maximum of 4 times.
Transfer Credit: CSU

BUSC 152
INTRODUCTION TO JURY CHARGE INTERMEDIATE COMPUTERIZED SHORTHAND 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 140 and BUSC 141 or equivalent with grades of Credit or "C" or higher. 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 153
MULTIPLE-VOICE COLLOQUY I COMPUTERIZED SHORTHAND SPEED BUILDING I 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 70 wpm and a 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 154
INTRODUCTION TO CONGRESSIONAL RECORD COMPUTERIZED SHORTHAND SPEED BUILDING II 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 90 wpm and 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 155
MULTIPLE-VOICE COLLOQUY II COMPUTERIZED SHORTHAND SPEED BUILDING III 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 110 wpm and 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 156
JURY VOIR DIRE PROCEDURES COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (140-170 WPM) 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 130 wpm and 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 157
CONGRESSIONAL TESTIMONY COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (160-190 WPM) 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 150 wpm and 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 3 times.
Transfer Credit: CSU

BUSC 158
PROFESSIONAL PRACTICES HEARINGS/ CONFERENCES COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (180-210 WPM) 5 UNITS
Class hours: 2 lecture/10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 170 wpm and 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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 159
IN CURIA/IN CAMERA PROCEDURES COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (190-225 WPM) 5 UNITS
Class hours: 2 lecture/10 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 180 wpm, 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 a maximum of 3 times.
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 4 times.
Transfer Credit: CSU

BUSC 180
COMPUTERIZED SHORTHAND SPEED BUILDING (225 WPM) 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend completion of CSR academic requirements and Court Reporting CAT computer classes. Minimum stenotype speed of 190 wpm and typing speed of 60 wpm.
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 a maximum of 4 times.
Transfer Credit: CSU

BUSC 181
COMPUTERIZED SHORTHAND SPEED BUILDING (240 WPM) 4.5 UNITS
Class hours: 2 lecture/8 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Minimum stenotype speed of 225 wpm and typing speed of 60 wpm. 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.
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 a maximum of 3 times.
Transfer Credit: CSU

BUSC 190
MEDICAL TRANSCRIPTION I/ COURT REPORTING METHOD 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 114, BUSC 119E, and BUSC 142 or equivalent with grades 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 191
MEDICAL TRANSCRIPTION II/ COURT REPORTING METHOD 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: BUSC 190.
Recommendation: BUSC 119E and A&P 120 or equivalent with grades 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 192
TRANSCRIPTION PROCEDURES 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: None.
Recommendation: 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 a maximum of 2 times.
Transfer Credit: CSU

BUSC 193
BASIC CAPTIONING 5 UNITS
Class hours: 4 lecture/3.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSC 119B and BUSC 144 or equivalent with grades of Credit or "C" or higher.
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 a maximum of 2 times.
Transfer Credit: CSU

BUSINESS PARALEGAL

(Business Division)

BL 1T (Not degree applicable)
LEGAL-COMPUTER TUTORIAL 0.5 UNIT
Class hours: 1 hour per week as arranged
Prerequisite: None.
Corequisite: Concurrent enrollment in one or more advanced Business Paralegal (BL) course.
Recommendation: BL 56 with a grade of Credit or "C" or higher.
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.

BL 52
LAW OFFICE MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56 with a grade of Credit or "C" or higher.
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.

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.

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.

BL 65
ADVANCED LEGAL TECHNOLOGY 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56.
This course focuses on the applications and uses of spreadsheet management software, database management software, and graphics presentations software for the law office. Using spreadsheet management software, students will learn to track figures, anticipate income and expenses, prepare financial documents, and maintain information for the law office. Using database software, students will learn to collect, track, analyze and maintain information in the law office. Using graphics presentation software, students will learn to combine text and graphic images to develop computerized slide shows, transparencies and charts for use in the law office.

BL 100
INTRODUCTION TO CALIFORNIA CIVIL PROCEDURES 3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56 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.
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.
Transfer Credit: CSU
BL 102

ADVANCED CALIFORNIA CIVIL PROCEDURES 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 100 with a grade of Credit or "C" or higher.
Recommendation: BL 56 with a grade 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.
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.
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.
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.
Transfer Credit: CSU

BL 106
BANKRUPTCY LAW 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: None.
Recommendation: BL 56 with a grade 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.
Transfer Credit: CSU

BL 107
PROBATE PROCEDURES 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: None.
Recommendation: BL 56 with a grade 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.
Transfer Credit: CSU

BL 108
FAMILY LAW PROCEDURES 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: None.
Recommendation: BL 56 with a grade 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.
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 110
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 112)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. BL 110, BL 111, and BA 113 combined: maximum credit, one course.*

BL 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 111)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. BL 110, BL 111, and BA 113 combined: maximum credit, one course.*

BL 112
ESTATE PLANNING FOR THE PARALEGAL 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: None.

Recommendation: BL 56 with a grade 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.
Transfer Credit: CSU

BL 113
FUNDAMENTALS OF ALTERNATE DISPUTE RESOLUTIONS 3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56 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.
Transfer Credit: CSU

BL 114
LAW ON THE INTERNET 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
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.
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.
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.
Transfer Credit: CSU

BL 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 161)
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 units 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 a maximum of 3 times.
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 a maximum of 3 times.
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 4 times.
Transfer Credit: CSU

BL 220
LANDLORD AND TENANT LAW 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56 with a grade of Credit or "C" or higher.
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.
Transfer Credit: CSU

BL 230
CORPORATE LAW 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56 with a grade of Credit or "C" or higher.
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.
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 0.5 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.

BUSR 50
INTRODUCTION TO
REAL ESTATE SOFTWARE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: 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).

BUSR 51
REAL ESTATE PRE-LICENSE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: 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.

BUSR 52
MORTGAGE LOAN BROKERING
AND LENDING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
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.

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.

BUSR 54
COMPUTERS IN REAL PROPERTY
APPRAISAL PRACTICE 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: BUSR 53 or BUSR 131 or equivalent with a grade of Credit of "C" or higher.
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.

BUSR 55
REAL ESTATE OFFICE ADMINISTRATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: 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.)

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.

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.
Transfer Credit: CSU

BUSR 120
REAL ESTATE FINANCE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: 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.)
Transfer Credit: CSU

BUSR 125
LEGAL ASPECTS OF REAL ESTATE **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: BUSR 101 or BL 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.)
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.)
Transfer Credit: CSU

BUSR 131
INTRODUCTION TO REAL ESTATE APPRAISAL **4 UNITS**
Class hours: 4 lecture
Prerequisite: None.
Recommendation: 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 units. 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.
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.
Transfer Credit: CSU

BUSR 151
FUNDAMENTALS OF ESCROW **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: 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.
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: None.
Recommendation: 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.)
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 a maximum of 3 times.
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 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU

CHEMISTRY

(Science/Engineering/Math Division)

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.)
*Transfer Credit: CSU; UC**
**UC credit limits may apply: CHEM 110 and CHEM 100 combined: maximum credit, one course. No credit for 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 concurrent enrollment 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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply: CHEM 110 and CHEM 100 combined: maximum credit, one course. No credit for 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.
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.
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.
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.
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 a maximum of 2 times.
Transfer Credit: CSU, UC credit determined after admission

NON-CREDIT (ADULT EDUCATION) CLASS

AED 90.1 (Not degree applicable)
SUPERVISED SCIENCE TUTORIAL 0 UNIT
Class hours: 2 lab
Open entry/open exit
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 BIOL 9T, CHEM 9T)

CHILD DEVELOPMENT

(Health Occupations Division)

CD 110
CHILD DEVELOPMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course explores the physical, cognitive/language, and socio-emotional development of the child from the prenatal through adolescent period across diverse cultures with an emphasis on the learning process and developmentally appropriate teaching practices. The student will also learn the effect of family, peers, and society upon children at different ages. This course meets the Department of Social Service Classification Indicator DS 1.
Transfer Credit: CSU; UC

CD 115
PARENT SCHOOL
PARTNERSHIPS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
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 DIVERSE 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.
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.
Transfer Credit: CSU

CHILD DEVELOPMENT/EARLY CHILDHOOD

(Health Occupations Division)

CDEC 62
EXPLORING CREATIVE ART EXPRESSION BY CHILDREN **3 UNITS**
Class hours: 3 lecture
Prerequisite: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course explores expressive visual arts experiences for children. The major focus will be on documenting and assessing the learning and thinking process of children and how it develops through exploration, discovery, and the creation of images, using a variety of art materials. This course meets the Department of Social Services Classification Indicator DS 3.

CDEC 63
EARLY CHILDHOOD EXPERIENCES IN LANGUAGE ARTS AND SOCIAL SCIENCES **3 UNITS**
Class hours: 3 lecture
Prerequisite: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course will acquaint the student with developmentally appropriate language, literature, social sciences, and dramatic activities for children. Instruction will cover pre-reading, pre-writing, and the development of listening and speaking skills. Special needs and diversity issues involved in the development of literacy skills are introduced. This course meets the Department of Social Services classification Indicator DS 3.

CDEC 65
MUSIC AND MOVEMENT FOR CHILDREN **3 UNITS**
Class hours: 3 lecture
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 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 Services Classification Indicator DS 3.

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.

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.

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 Services Classification Indicator DS 3.
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 Services Classification Indicator DS 3.
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 and development by the family, the school, child-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 Services Classification Indicator DS 2.
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 Services Classification Indicator DS 3.
Transfer Credit: CSU

CDEC 161
NUTRITION, HEALTH AND SAFETY IN CHILDREN'S PROGRAMS 3 UNITS
Class hours: 3 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 the following: nutrition; school menus; common childhood diseases; federal, state, and local nutrition and 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 61)
Transfer credit: CSU

CDEC 164
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 an opportunity for students placed in the Cerritos College Child Development Center and off-site practica to explore the relationship between theory and practice in programs for young children. The course includes both lecture and laboratory experiences during which students will examine developmental issues, the role of the teacher/caregiver in early childhood programs, and the relationship between programs and families. Students will explore and practice techniques for the observation and recording of behavior; examine environments for young children; and plan, implement, and evaluate developmentally appropriate, culturally relevant experiences for young children. Students spend 3 hours/week in placement for a total of 54 hours/semester. TB clearance and good health are required to participate in this course. This course meets the Department of Social Services Classification Indicator DS 3.
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 experience that are new or are an expansion of their regular responsibilities. This course may be taken a maximum of 4 times based on the number of hours on the job. This course meets the Department of Social Services Classification Indicator DS 3.
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.
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/ INSTRUCTIONAL AIDE

(Health Occupations Division)

CDIA 73/74
EDUCATIONAL PARAPROFESSIONAL OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hours control class each week plus 15 hours of employment per week for Instructional Aide work experience 73 or 20 hours of employment per week for Instructional Aide work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: Enrollment in the Instructional Aide vocational program with 7 or more units including occupational work experience.
Occupational Work Experience is a supervised employment program in an approved workstation 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. Students who are not employed but wish to gain work experience may be placed in a non-paying position if such opportunities are available. These courses may be taken for a maximum of 2 times based on the number of hours on the job.

CDIA 90
INTRODUCTION TO ELEMENTARY AND SECONDARY CLASSROOM EXPERIENCES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to introduce students to principles of classroom experiences. In addition to the dynamics of grade level instruction,

emphasis is placed on how children learn, the curriculum of the classroom, discipline and guidance techniques and the role of the paraprofessional or volunteer within a school setting. Attention will be placed on bilingual, multicultural instruction, and special education.

CDIA 99
EDUCATIONAL PARAPROFESSIONAL PRACTICUM **3 UNITS**
Class hours: 1 lecture/6 lab
Prerequisite: None.
This course offers the student the opportunity to work as an instructional aide under the supervision of professional staff in an elementary or secondary school setting. Content will include developing skills, techniques, and strategies for working in the multilingual/ multiethnic classroom. Classroom placement will be arranged for those students not employed by a school district. This course may be taken a maximum of 2 times.

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 Services Classification Indicator DS 4.

CDIT 151
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 Services Classification Indicator DS4. (Formerly CDIT 51)
Transfer Credit: CSU

CDIT 152
INFANT AND TODDLER PROGRAMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None
Recommendation: CD 110 and CDIT 51 or equivalent with grades 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 Services Classification Indicator DS 4. (Formerly CDIT 52)
Transfer Credit: CSU

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 Services Classification Indicator DS 6.
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 Services Classification Indicator DS 5.
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 child care program. It provides the opportunity to assist the teacher in the Center by planning, preparing, and implementing activities with school-age children. Students will also explore guidance techniques, room environment, tutoring, record keeping, and other extended child care responsibilities. This course meets the Department of Social Services Classification Indicator DS 5.
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 surveys the field of special education emphasizing the role of the Special Education Assistant in the training of the exceptional individuals. It includes an introduction to the types of special need children and adults, the function of the assistant, and the vocational opportunities available.

CDSE 52
SPECIAL EDUCATION INCLUSION IN EARLY CHILDHOOD PROGRAMS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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. This course may be taken a maximum of 4 times based on the number of hours on the job. This course meets the Department of Social Services Classification Indicator DS 3.

COMPUTER AND INFORMATION SCIENCES

(Science, Engineering and Math Division)

CIS 5C (Not degree applicable)
BUSINESS COMPUTER INFORMATION SYSTEMS DATABASE MODULE 0.5 UNITS
Class hours: 1.5 lecture/2.5 lab
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 a maximum of 2 times. (Not open to students with credit in CIS 102).

CIS 50
BASIC COMPUTER LITERACY 0.5 UNIT
Class hours: 4 lab
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.

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.

CIS 54A
EXCEL FOR WINDOWS - PART 1 1.5 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 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.

CIS 54B
EXCEL FOR WINDOWS - PART 2 1.5 UNITS
Class hours: 3 lecture/2 lab
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.

CIS 56
MICRO DISK OPERATING SYSTEMS 1.5 UNITS
Class hours: 3 lecture/2 lab
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.

CIS 58
WINDOWS FOR COMPTIA A+ CERTIFICATION EXAMS 1.5 UNITS
Class hours: 3 lecture/2 lab
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 58A
PC OPERATING SYSTEMS A+ CERTIFICATION 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is designed to cover the subject matter required for the operating systems technologies component of CompTIA's A+ Certification. Topics to be discussed include operating system installation, configuration, upgrading, troubleshooting, and networking. This course may be taken a maximum of 3 times.

CIS 58B
PC CORE HARDWARE A+ CERTIFICATION 3.5 UNITS
Prerequisite: None
Corequisite: None
Recommendation: CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is designed to cover the subject matter required for the core hardware component of CompTIA's A+ Certification. Topics to be discussed include computer hardware installation, construction, upgrading, troubleshooting, repair, networking, Internet connectivity and wireless technologies. This course may be taken a maximum of 3 times.

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.

CIS 70B
NETWORK+CERTIFICATION 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
This course offers training in the knowledge and skills required by the CompTIA (The Computer Technology Industry Association) for its Network+certification. Topics include network fundamentals, local area network implementation, basic systems administration, and various network protocols and devices.

CIS 70D
INTRODUCTION TO TCP/IP 1.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 70A or equivalent with a grade of Credit or "C" or higher.
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 services, and troubleshooting methodologies are also reviewed. Topics include usage of TCP/IP applications, structure of TCP/IP addressing and subnetting, how TCP/IP addresses and 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).

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.

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.

CIS 70H
NETWORKING ANALYSIS AND DESIGN 2.5 UNITS
Class hours: 5 lecture
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.

CIS 70J
CISCO CNNA CERTIFICATION EXAM REVIEW 1.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 70G or equivalent with a grade of Credit or "C" or higher.
This course is designed to enhance student readiness for the Cisco Certified Network Associate (CCNA) exam. It reviews all key concepts and skills required in the CCNA exam as well as exam question types and test-taking strategies.

CIS 70K
INTRODUCTION TO WIRELESS NETWORKING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 70A or equivalent with a grade of Credit or "C" or higher.
This is an introductory course on the fundamental concepts of wireless networking. It covers the technical foundation of wireless communications and various, protocols used in the current wireless applications. Topics include Wireless Application Protocol (WAP), Bluetooth, cellular telephony, Wireless

Local Area Networks (WLANs), satellite communications, Global Positioning System (GPS).

CIS 70L
NETWORK SECURITY FUNDAMENTS **3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 70A or equivalent with a grade of Credit or "C" or higher.
This is an introductory course on fundamentals of network security. It provides a comprehensive overview of network security and covers communication security, infrastructure security, cryptography, operational. organizational security, disaster recovery, business continuity, as well as computer forensics. The course content also maps to the Security+ certification exam by Computing Technology Industry Association (CompTIA).

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.

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.

CIS 84
MICROSOFT INTERNET INFORMATION SERVER **1.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 212 or CIS 212B and CIS 121 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.

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, which 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.
*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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply: CIS 101 and 102 combined: maximum credit, one course.*

CIS 103
COMPUTER PROGRAMMING LOGIC **3.5 UNITS**
Class hours: 3 lecture /2 lab
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 programming logic. The student will learn concepts applicable to all programming languages, including; identifiers, data types, arrays, control structures, algorithms, modular programming, generating reports, and computer memory concepts. The student will learn to use charts commonly used in business and information processing. Program logic will be developed using flowcharts and pseudocode. Programs will be written using a programming language. The student will be introduced to the following additional topics: graphical user interface design, object-oriented-and event-driven-programming, searching, sorting, and file processing concepts.
Transfer Credit: CSU; UC

CIS 105
USING MICROSOFT WINDOWS **1.5 UNITS**
Class hours: 3 lecture +1 hr. lab. arr.
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.
Transfer Credit: CSU

CIS 105B
MICROSOFT WINDOWS MOBILE 3 UNITS
Class hours: 1.5 lecture/0.5 lab arr.
Prerequisite: None.
Corequsiste: None.
Recommendation: None.
This course offers technical training in the Microsoft Windows Mobile (WM) technology. Students will learn the technical background of the WM operating systems, various communication protocols used on the WM-based devices, and their applications. Troubleshooting techniques and software development tools will be discussed. This course is designed for students interested in the technical support on the WM operations in an enterprise environment. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

CIS 120
WEB DESIGN WITH MICROSOFT FRONTPAGE 1.5 UNITS
Class hours: 3 lecture/2 lab
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.
Transfer Credit: CSU

CIS 121
INTERNET FOR INFORMATION SYSTEM/INFORMATION TECHNOLOGY 1.5 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
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.
Transfer Credit: CSU

CIS 125
JAVASCRIPT FOR PROGRAMMERS 1.5 UNITS
Class hours: 3 lecture/2 lab
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.)
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.
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 ISERIES (AS/400) 1.5 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, 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
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.
Transfer Credit: CSU

CIS 142B
AS/400 OPERATIONS/ FACILITIES-PART 2 1.5 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.

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.
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, for-matting, 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.
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.
Transfer Credit: CSU

CIS 155A
MICROSOFT ACCESS CORE LEVEL 1.5 UNITS
Class hours: 3 lecture/2 lab
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
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 160
WEB PAGE DEVELOPMENT 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 205.
This course provides the knowledge, skills, and hands-on experience needed to create multi-media Web pages. Students will create Web pages with links, graphics, tables, frames, and form application, as well as dimensions of time, audio, video, motion, and interactivity to Web pages using variety of authoring tools. Upon completing this course, students will be ready to plan, build, promote, and maintain a professional Web site, which includes selecting a Web host and uploading the site to a Web server.
Transfer Credit; CSU

CIS 168C
SPECIAL TOPICS IN NETWORKING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide training on the application of networking solutions to various industry specific situations. Each semester the course will focus on a different aspect of networking. Examples include but are not limited, to automotive, aviation, entertainment industry, health care, home automation, industrial control, IP version 6, and recent developments in Local Area Networking (LAN) and Wide Area Networking (WAN). This course may be taken a maximum of 2 times.
Transfer Credit: CSU

CIS 169A
SPECIAL TOPICS IN SECURITY 1 UNIT
Class hours: 1 lecture/1 arr.
Prerequisite: None.
Corequsiite: None.
Recommendation: None.
This course is designed to provide basic information on the latest technological developments in the information security field. Students will learn about the latest security issues in the enterprise network as well as various tactics and tools to counter those security threats. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

CIS 169D
SPECIAL TOPICS IN SECURITY 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequsiite: None.
Recommendation: None.
This course is designed to provide in-depth training on the latest software and hardware technology used in the enterprise network security field. Students will learn about and research the latest security threats in an organization. They will also explore various tactics and tools to counter those security threats and implement them in the enterprise network. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

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.
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).
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.
Transfer Credit: CSU

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.
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.)
Transfer Credit: CSU; UC

CIS 181A
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 103 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course covers the fundamentals of the Java programming language used to develop Web-delivered Internet and platform-independent enterprise applications. Features of Java covered in this course include basic Java programming constructs, object oriented programming, and the graphical user interface (GUI).
Transfer Credit: CSU; UC

CIS 186
VISUAL BASIC.NET PROGRAMMING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 103 or equivalent with a grade of Credit or "C" or higher or knowledge of one programming language.
Corequisite: None.
Recommendation: None.
This course provides students with the knowledge and skills needed to develop Microsoft.NET-based applications by using Visual Basic.NET. This course focuses on Graphical User Interface (GUI) components.
Transfer Credit: CSU

CIS 189A
SPECIAL TOPICS IN SOFTWARE DEVELOPMENT 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to new software application designs in the information technology industry. The focus of the course includes programming language structure, programming implementation, and application design. Students may take a combination of CIS 189A, CIS 189B, and/or CIS 189C, no more than a total of 4 times.
Transfer Credit: CSU, UC credit determined after admission

CIS 189B
SPECIAL TOPICS IN SOFTWARE DEVELOPMENT 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to new software application designs in the information technology industry. The focus of the course includes programming language structure, programming implementation, and application design. Students may take a combination of CIS 189A, and/or CIS 189B, CIS 189C, no more than a total of 4 times.
Transfer Credit: CSU, UC credit determined after admission

CIS 189C
SPECIAL TOPICS IN SOFTWARE DEVELOPMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.

This course introduces students to new software application designs in the information technology industry. The focus of the course includes programming language structure, programming implementation, and application design. Students may take a combination of CIS 189A, CIS 189B, and/or CIS 189C, no more than a total of 4 times.
Transfer Credit: CSU, UC credit determined after admission

CIS 189D
SPECIAL TOPICS IN SOFTWARE DEVELOPMENT 3.5 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 software development course designed to acquaint the student with new, languages in the information technology industry. The course will focus on programming language structure, programming implementation, and application design. This course may be taken a maximum of 2 times.
Transfer Credit: CSU, UC credit determined after admission

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.
Transfer Credit: CSU

CIS 202A
PROJECT MANAGEMENT FOR INFORMATION TECHOLOGY 3.5 UNITS
Class hours: 3 lecture/2 lab
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
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.
Transfer Credit: CSU

CIS 206
XML WEB APPLICATION DEVELOPMENT 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 205 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course covers the purpose and scope of eXtensible Markup Language (XML). The course will cover XML-related technologies and standards to develop dynamic, data-driven Web applications. Topics include XML structure and syntax, eXtensible Hypertext Makeup Language (XHTML), Document Type Definition (DTD) and schemas validation, Cascading Style Sheet (CSS), XML as linking and searching mechanism, eXtensible Style Sheet (XSL) for formatting-object documents, Documents Object Model (DOM), and Simple API for XML (SAX) for parsing and transforming XML.
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.
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 211A
SPECIAL TOPICS IN DATABASE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.

This course introduces students to recent advancements of database systems in formation technology. The focus of this course will be database administration, programming, and security. The specific focus of a particular offering will be decided by the course instructor and announced in the Schedule of Classes. Students may take a combination of CIS 211A, CIS 211B, and/or CIS 211C, no more than a total of 4 times.
Transfer Credit: CSU

CIS 211B
SPECIAL TOPICS IN DATABASE 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to recent advancements of database systems in information technology. The focus of this course will be database administration, programming, and security. The specific focus of a particular offering will be decided by the course instructor and announced in the Schedule of Classes. Students may take a combination of CIS 211A, CIS 211B, and/or CIS 211C, no more than a total of 4 times.
Transfer Credit: CSU

CIS 211C
SPECIAL TOPICS IN DATABASE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to recent advancements of database systems in information technology. The focus of this course will be database administration, programming, and security. The specific focus of a particular offering will be decided by the course instructor and announced in the Schedule of Classes. Students may take a combination of CIS 211A, CIS 211B, and/or CIS 211C, no more than a total of 4 times.
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.
Transfer Credit: CSU

CIS 212A
MICROSOFT WINDOWS 2000 PROFESSIONAL 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 105 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 and configure Microsoft Windows 2000 Professional on stand-alone and client computers that are part of a workgroup or domain. This course incorporates a hands-on approach to the learning material. It also prepares students for the Microsoft certificate exam 70-210- Installilng, Configuring, and Administering Microsoft Windows 2000 Professional, which is one of the core requirements for the Microsoft Certified Systems Administrator (MCSA) and Microsoft Certified Systems Engineer (MCSE) certifications.
Transfer Credit: CSU

CIS 212B
MICROSOFT WINDOWS 2000 SERVER 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 212A or equivalent with a grade 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 involving Microsoft Windows 2000 Servers. Topics include installing and configuring Windows 2000 Server, managing files, printing, Web and Terminal services, connecting clients, creating and managing user accounts, managing access to resources on the network, monitoring and optimizing server performance, implementing security and disaster protection and troubleshooting various server related issues. This course also prepares students for the Microsoft certification exam 70-215 – Installing, Configuring, and Administering Microsoft Windows 2000 Server, which is one of the core requirements for the Microsoft Certified systems Administrator (MCSA) and Microsoft Certified Systems Engineer (MCSE) certifications.
Transfer Credit: CSU

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 DirectoryTM structure that meets those needs.
Transfer Credit: CSU

CIS 213D
DESIGNING A MS WINDOWS 2000 NETWORK INFRASTRUCTURE 2.5 UNITS
Class hours: 5 lecture
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 2003 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 213G
MICROSOFT EXCHANGE SERVER ADMINISTRATION 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 212B or equivalent with a grade of Credit or "C" or higher.
This course is to provide the knowledge required by System Administrators, Network Administrators, and IT (Information Technology) professionals who implement, manage and troubleshoot the Microsoft Exchange server. These skills are generally required in medium to very large computing environments that typically have multiple physical locations, mixed client connection protocols, and Internet messaging connectivity. In addition, this course is part of the Microsoft Certified Systems Engineer (MCSE) certification program series.
Transfer Credit: CSU

CIS 213H
MCROSOFT WINDOWS SECURITY 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 212B or equivalent with a grade of Credit or "C" or higher.
This course will provide training in tools and procedures recommended by the security industries for the System Administrators, Network Administrators, and Information Technology (IT) professionals who design, implement, and manage the Microsoft windows network environment.
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.
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 SolarisTM 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 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.
Transfer Credit: CSU

CIS 221A
OBJECT-ORIENTED PROGRAMMING IN VB.NET 3 UNITS
Class hours: 3 lecture/2 hrs. arr.
Prerequisite: CIS 186 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides the students with the knowledge and skills required to create and use. NET objects and Windows forms applications. This course will cover writing objects, events, properties, callbacks, inheritance, interfaces, polymorphism .NET assemblies, multithreading and Internet communications,
Transfer Credit: CSU

CIS 221B
DATABASE AND WEB PROGRAMMING IN VB.NET 3 UNITS
Class hours: 3 lecture/2 hrs. arr.
Prerequisite: CIS 186 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will provide students the skills to build database applications and web services using VB.NET.
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.
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.
Transfer Credit: CSU

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.
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.
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.
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 times.
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 3 times.
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 4 times.
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 4 times.
Transfer Credit: CSU

CIS 280
OBJECT-ORIENTED PROGRAMMING IN C++ 3 UNITS
Class hours: 3 lecture
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 Programing (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.
Transfer Credit: CSU; UC

CIS 281
WINDOWS PROGRAMMING WITH VISUAL C#.NET 3 UNITS
Class hours: 3 lecture/2 hrs. arr.
Prerequisite: CIS 180 or CIS 182 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides students with the knowledge and skills needed to develop C# applications for the Microsoft.NET platform. This course focuses on C# program structure, language syntax, and Windows client application.
Transfer Credit: CSU

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.
Transfer Credit: CSU

CIS 283A
JAVA SERVER PAGES (JSP) PROGRAMMING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 125 or CIS 182 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course introduces the student to Java Server pages (JSP) programming for Web Server. Students learn to write scripts in web pages that are processed at the server to handle client requests, process forms, mine data and connect to other services
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.
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 285A
ASP.NET PROGRAMMING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 186 and CIS 205 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.NET (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 UNITS
Class hours: 3 lecture
Prerequisite: CIS 182 or CIS 280 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
This course is designed for students in computer science to cover elementary data structures and advanced programming techniques using a modern, object-oriented language. Topics include arrays, stacks, queues, linked lists, trees, recursion, sorting, searching, ad advanced applications.
Transfer Credit: CSU; UC

NON-CREDIT (ADULT EDUCATION) CLASSES

AED 90.3 (Not degree applicable)
SUPERVISED COMPUTER UTILIZATION TUTORIAL 0 UNIT
Class hours: 2 hrs. arr.
Prerequisite: None.
Corequisite: Enrollment in any CIS courses.
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 CIS courses in which the students are enrolled. (Formerly CIS 2L/CIS 3L)

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
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 a maximum of 4 times.

COS 1L
COSMETOLOLGY SKILLS DEVELOPMENT LAB **0.5 UNITS**
Class hours: 1.67 lab
Prerequisite: COS 50C, COS 54, COS 60B, COS 70A, or COS 71A with a grade of Credit or "C" or higher, or equivalent.
Corequisite: Concurrent enrollment in any Cosmetology course.
Recommendation: None.
This lab 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, haircoloring, permanent waving, chemical straightening, scalp treatments, facials, waxing, manicuring, pedicures and thermal styling.

COS 25
INTRODUCTION TO COSMETOLOGY CAREERS **2 UNITS**
Class hours: 2 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 15 or READ 42 with a grade of Credit or "C" or higher, or the equivalent.
This is an introductory course providing an overview of cosmetology careers as a cosmetologist, esthetician, or manicurist. The emphasis will be understanding the requirements to achieve a cosmetology license. Students will be introduced to technical vocabulary, demonstration of hair design, make-up, chemicals, manicuring, and hands-on applications. An overview of the program and professions will be included. These course hours are not counted toward State Board Certification.

COS 50A
INTRODUCTORY COSMETOLOGY I **6.5 UNITS**
Class hours: 9.75 lecture/29.25 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 20 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.
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
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
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
Prerequisite: COS 50C or COS 60B or COS 70A or COS 71B 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
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
Prerequisite: COS 51C or COS 61B or COS 70B or COS 72B 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
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
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
Prerequisite: COS 52C or COS 62B or COS 70C or COS 73B 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 taken a maximum of 3 times as necessary to complete 1600 hours.

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.

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.

COS 60A
INTRODUCTORY COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 20 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.
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.

COS 60B
INTRODUCTORY COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 60A or COS 71A 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.

COS 61A
INTERMEDIATE COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 50C or COS 60B or COS 70A or COS 71B 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.

COS 61B
INTERMEDIATE COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 61A or COS 72A 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.

COS 62A
ADVANCED COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 51C or COS 61B or COS 70B or COS 72B 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.

COS 62B
ADVANCED COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 62A or COS 73A 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.

COS 63
ADVANCED COSMETOLOGY MANIPULATION 4 UNITS
Class hours: 2.5 lecture/5 lab
Prerequisite: COS 52C or COS 62B or COS 70C or COS 73B with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
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, haircoloring, permanent waving, chemical straightening, scalp treatments, facials, waxing, manicuring, pedicuring, and thermal styling. This course may be taken a maximum of 2 times as necessary to complete 1600 hours,

COS 70A
INTRODUCTORY COSMETOLOGY 8 UNITS
Class hours: 9.38 lecture/28.13 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 20 with a grade of Credit or "C" or higher, and satisfactory completion of the Reading Process or READ 43 or equivalent with a grade of Credit or "C" or higher.
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.

COS 70B
INTERMEDIATE COSMETOLOGY 8 UNITS
Class hours: 9.38 lecture/28.13 lab
Prerequisite: COS 50C or COS 60B or COS 70A or COS 71B 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.

COS 70C
ADVANCED COSMETOLOGY MANIPULATION 8 UNITS
Class hours: 9.38 lecture/28.13 lab
Prerequisite: COS 51C or COS 61B or COS 70B or COS 72B 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 a maximum of 2 times as necessary to complete 1600 hours.

COS 71A
INTRODUCTORY COSMETOLOGY 4 UNITS
Class Hours: 2 lecture/6 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 20 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.
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.

COS 71B
INTRODUCTORY COSMETOLOGY II 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: COS 60A or COS 71A 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 provides an opportunity for students to perform basic skills in press and curl, braiding, female and men's hairsculpture, and how to relate to people. It provides an opportunity for students to continue developing manipulative skill in hairstyling, haircoloring, permanent waving, manicuring, and pedicuring. Emphasis will be placed on safety and sanitation as it relates to the cosmetology profession, professionalism, and the client.

COS 72A
INTERMEDIATE COSMETOLOGY I 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: COS 50C or COS 60B or COS 70A or COS 71B 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 71B)

COS 72B
INTERMEDIATE COSMETOLOGY II 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: COS 61A or COS 72A 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. It provides an opportunity for students to continue developing manipulative skills in thermal hairstyling, wet hairstyling, wet hairstyling, chemical waving, hairsculpturing, salesmanship, long hairstyling, chemical relaxing, and braiding to gain knowledge of tricology 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.

COS 73A
ADVANCED COSMETOLOGY I 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: COS 51C or COS 61B or COS 70B or COS 72B 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 a maximum of 2 times as necessary to complete 1600 hours. (Formerly COS 71C)

COS 73B
ADVANCED COSMETOLOGY II 4 UNITS
Class hours: 4.5 lecture/13.5 lab
Prerequisite: COS 62A or COS 73A 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. It provides an opportunity for students 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.

COS 80A
INSTRUCTION TECHNIQUES IN COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: A valid Cosmetology license and five years verified work experience.
Corequisite: None.
Recommendation: None.
This course is the first of two sequenced courses designed to prepare the licensed cosmetologist for the cosmetology instructor examination as required by the Board of Barbering and Cosmetology. Content includes demonstrations on teaching with the student participating in both lectures of related information and practical demonstration of topics that are required for State Board licensure.

COS 80B
INSTRUCTION TECHNIQUES IN COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 80A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This advanced course is designed to continue the preparation of the licensed cosmetologist for the cosmetology instructor examination as required by the Board of Barbering and Cosmetology. The lecture section consists of continued and more advanced demonstrations in teaching with the student participating in both lectures of related information and practical demonstration of students that are required for State Board licensure.

COUNSELING AND GUIDANCE

(Counseling Division)

CG 1 (Not degree applicable)
CAREER PLANNING 1 UNIT
Class hours: 2 hours per week
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.

CG 2 (Not degree applicable)
SELF AWARENESS TOWARDS EDUCATIONAL READINESS 2 UNITS
Class hours: 2 lecture/3.3 lab
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 a maximum of 2 times.

CG 3 (Not degree applicable)
ORIENTATION FOR THE STUDENT WITH DISABILITIES 1 UNIT
Class hours: 2 lecture
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.

CG 4 (Not degree applicable)
CAREER EXPLORATION FOR THE STUDENT WITH DISABILITIES 1 UNIT
Class hours: 2 lecture
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.

CG 5 (Not degree applicable)
PERSONAL ASSESSMENT FOR THE STUDENT WITH DISABILITIES 1 UNIT
Class hours: 2 lecture
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.

CG 6 (Not degree applicable)
FAMILY LIVING FOR THE STUDENT WITH DISABILITIES 1 UNIT
Class hours: 2 lecture
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 a maximum of 4 times.

CG 50
ORIENTATION AND EDUCATIONAL PLANNING 0.5 UNITS
Class hours: 1.5 lecture
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 a maximum of 2 times.

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.
Transfer Credit: CSU

CG 150
DYNAMICS OF LEADERSHIP 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 better and participation in a college or community-based organization or club.
This course is designed for students who wish to develop a deeper understanding and appreciation of the theories, principles, and techniques of leadership in a college or community-based organization. It includes the study and practical application of group and individual leadership techniques. It is designed to improve awareness of group dynamics, listening skills, personal values, decision making, problem solving, and organizational development. It emphasizes critical analysis of leaders in the news, history, film, and/or literature.
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.
Transfer Credit: CSU

CG 210
JOB SEARCH STRATEGIES 1 UNIT
Class hours: 2 lecture/1 lab
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 a maximum of 2 times.
Transfer Credit: CSU

CG 220
TRANSITION TO UNIVERSITIES 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. Completion of 12 CSU/UC transferable units.
This course is a presentation and discussion of college life transitions. It addresses effective decision-making activities and strategies for transfer students. Included are evaluation of education/career goals; analysis, comparison, and evaluation of university admissions standards; review of major preparation; and an introduction to post-graduate entrance requirements. Students will make on-site research/field visits to universities and review available student services.
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: 9 lecture
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.

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 2 times based on the number of hours on the job.

CA 52
FOOD PRODUCTION 9.5 UNITS
Class hours: 3 lecture/20 lab
Prerequisite: None.
Corequsiite: CA 101 with a grade of Credit or "C" or higher or prior completion.

This course introduces the beginning student to food products and ingredients and develops basic cooking skills used in commercial kitchens. The preparation and uses of meats, vegetables, fruits, salads, sandwiches, garnishes, dressing, grilling, deep-fat frying, pan frying, and broiling are included. A negative T.B. test for food service personnel is a State regulation.

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.

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.

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.

CA 80
INTRODUCTION TO BAKING SKILLS 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: CA 101with a grade of Credit or "C" or higher or prior completion.
This course introduces the student to basic baking techniques and basic ingredients utilized in the industry. This course will cover developing a variety of breads, sweet doughs, roll varieties, pie dough and fillings, cakes and pastries. A negative T.B. test for food service personnel is a State regulation.

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.

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: None.
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 cake, pastries, icings, and fillings. Processed frozen dough, fried products, and frozen baked products and introduced. Maintaining product freshness is emphasized. A negative T.B. test for food service personnel is a State regulation.

CA 101
INTRODUCTION TO FOOD SERVICE, SAFETY & SANITATION 1 UNITS
Class hours: 1 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. ServSafe Certification Exam will be administered.
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
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 a maximum of 2 times. This course is offered on a credit/ no credit basis only.

DA 51
APPLIED DENTAL SCIENCE I 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
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: None.
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: None.
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: None.
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.
Corequisite: None.
Recommendation None.
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.
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.
Transfer Credit: CSU

DH 112
DENTAL HYGIENE RADIOGRAPHY **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: Admission to the Dental Hygiene Program.
Corequisite: None.
This course is a study of the dental radiography, the characteristics and methods of controlling x-radiation, types of film used, methods of processing, identifying, and mounting radiographs, radiation safety procedures, and interpretation of radiographs for preliminary evaluation. It includes the theories and techniques of intra-oral and extra-oral radiography with laboratory experience and analysis of technique errors.
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.
Transfer Credit: CSU

DH 115C
PRE-CLINICAL DENTAL HYGIENE I **2 UNITS**
Class hours: 6 lab
Prerequisite: Admission to the Dental Hygiene Program and a valid adult, child and infant CPR card including two-person CPR.
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.
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.
Transfer Credit: CSU

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.
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.
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.
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.
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.
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 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.
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.
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 contra-indications for use, and the treatment of complications and emergencies are stressed. Other modalities of pain control will be discussed.
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.
Transfer Credit: CSU

DH 150C
CLINICAL DENTAL HYGIENE IIA 1 UNIT
Class hours: 3 lab
Prerequisite: DH 125C & DH 128 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.
Transfer Credit: CSU

DH 232L
DENTAL MATERIALS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: DH 235C.
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.
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.
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.
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 a variety of dental facilities in Los Angeles County. 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.
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.
Transfer Credit: CSU

DH 239
DENTAL HEALTH EDUCATION AND RESEARCH I 2 UNITS
Class hours: 2 lecture
Prerequisite: Admission to the Dental Hygiene Program.
Corequisite: None.
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.
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.
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.
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.
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: None.
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.
Transfer Credit: CSU

DH 249
DENTAL HEALTH EDUCATION AND RESEARCH II **2 UNITS**
Class hours: 2 lecture
Prerequisite: DH 238L 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.
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). This course may be taken a maximum of 2 times.

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). This course may be taken a maximum of 2 times.

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). This course may be taken a maximum of 2 times. For selected disciplines, UC transfer credit may be possible after admission to a UC campus, pending review of appropriate course materials by UC staff. See a counselor for an explanation.
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). This course may be taken a maximum of 2 times. For selected disciplines, UC transfer credit may be possible after admission to a UC campus, pending review of appropriate course materials by UC staff. See a counselor for an explanation.
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.
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.
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.
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.
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.
*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 a maximum of 2 times.
Transfer Credit: CSU

ECONOMICS

(Humanities/Social Sciences Division)

ECON 101
US AND GLOBAL ECONOMY TO ECONOMIC ISSUES AND POLICY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a one-semester survey of basic economic concepts and institutions stressing the role of the United States in the global economy. The course presents the foundations of economic analysis and applications of 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.
*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. This course is not open to students who have received credit in WS 206.
Transfer Credit: CSU; UC

ECON 201 (CAN ECON 2)
PRINCIPLES OF MACROECONOMICS 3 UNITS
Class hours: 3 lecture/1 lab arr.
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.
Transfer Credit: CSU; UC

ECON 202 (CAN ECON 4)
PRINCIPLES OF MICROECONOMICS 3 UNITS
Class hours: 3 lecture/1 lab arr.
Prerequisite: None.
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 principles of economic choice and opportunity costs are emphasized. This behavior of firms in competitive and monopolized market is explored.
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.
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 105
INTRODUCTION TO TEACHING (SINGLE SUBJECT CREDENTIAL) 1 UNIT
Class hours: 1 lecture
Prerequisite: Enrollment in the Cerritos College Teacher Training Academy.
Corequisite: None.
Recommendation: None.
EDEL 105 will provide students with an introduction to the profession of teaching at the secondary level. Teaching and learning in contemporary classrooms serving diverse student populations are discussed. The course will address professional teaching standards and current educational issues. Students will begin development of their Teacher TRAC Reflective Portfolio. Ten hours of observation in a middle/high school is a required component of this course.
Transfer Credit: CSU

EDEL 200
INTRODUCTION TO EDUCATION 3 UNITS
Class hours: 3 lecture
Prerequisite: Enrollment in the Cerritos College Teacher Training Academy (Teacher TRAC) or CSULB's Integrated Teacher Educational Program (ITEP), and 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 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 a maximum of 4 times.

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 a maximum of 2 times.

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 a maximum of 4 times.

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 a maximum of 4 times.

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 a maximum of 3 times.

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 a maximum of 3 times.

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 a maximum of 2 times.

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 a maximum of 2 times.

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.

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.

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.

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.

EDT 57
APPLE/CLARIS WORKS FOR EDUCATORS 1 UNIT
Class hours: 2 lecture
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 a maximum of 2 times.

EDT 64
HYPERSTUDIO BASICS 1 UNIT
Class hours: 2 lecture
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 a maximum of 4 times.

EDT 65
ADVANCED HYPERSTUDIO 1 UNIT
Class hours: 2 lecture
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 a maximum of 4 times.

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.

EDT 67
INSPIRATION PRESENTATIONS 1 UNIT
Class hours: 2 lecture
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 a maximum of 4 times.

EDT 68
USING KIDPIX **1 UNIT**
Class hours: 2 lecture
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 a maximum of 4 times.

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.

EDT 81
VIDEOS FOR SCHOOL USE **2 UNITS**
Class hours: 4 lecture
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 a maximum of 2 times.

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.
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.
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.
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.
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.
Transfer Credit: CSU

EDT 108
PHOTOSHOP ELEMENTS 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 a grade of Credit or "C" or higher.
This course covers the basic through advanced features of Adobe Photoshop Elements. Students will be introduced to the fundamentals of Adobe Photoshop Elements while discovering practical and creative uses of the application to increase speed and quality of learning in the classroom. Methods of integrating this software into the educational setting will be explored. Digital stories and photo essays will be used as an alternative learning style.
Transfer Credit: CSU

EDT 109
DEVELOPING CAMPUS-BASED PORTFOLIOS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course covers the basic as well as advanced features of campus-based e-portfolio (electronic portfolio) systems. E-portfolios can be used as a repository to store and organize digital evidence of teaching and learning. The tools in the e-portfolio systems will be used to represent individual learning and competencies.
Transfer Credit: CSU

EDT 110
INTRODUCTION TO EDUCATIONAL TECHNOLOGY **2 UNITS**
Class hours: 2 lecture/1 lab
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.
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.
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.
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.
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 121
USING HANDHELD COMPUTERS 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 trains educators and prospective educators in the use of handheld computers in education to perform administrative, instructional, and other classroom functions. Specific topics include the basics of using Palm OS handhelds, as well as more advanced functions such as productivity tools, student information system tools, assessment tools, web clipping, e-books, science probes, and writing tools. Other topics include policy and management issues related to handhelds and forming a plan for a school's use of handhelds.
Transfer Credit: CSU

EDT 122
FUNDRAISING/GRANT WRITING FOR EDUCATORS 2 UNITS
Prerequisite: None.
Corequisitie: None.
Recommendation: None.
This course covers the basics of grant seeking, grant writing, and other forms of fundraising that will enabled educators to obtain money for technology and other educational programs. The course will cover the process, structure, and skills to develop a conceptual framework for fundraising research, planning, writing skills and strategies. Budgetary considerations, budgetary planning, and presentation skills will also be addressed.
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.
Transfer Credit: CSU

NON-CREDIT (ADULT EDUCATION) CLASSES

AED 90.7 (Not degree applicable)
SUPERVISED ASSISTANCE FOR TECHNOLOGY-BASED COURSES 0 UNIT
Class hours: 3 lab
Open Entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course increases student knowledge of educational technology resources on computers improves student's use of education technology for successful completion of technology-based course assignments and empowers student confidence in utilizing educational technology. Special attention will be given to skills necessary for success in distance education courses. (Formerly EDT 6T/READ 5T)

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 a maximum of 2 times.

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 4 times.

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 2 times.

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.

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 a maximum of 2 times.

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 a maximum of 3 times.

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 a maximum of 3 times.

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.

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 taken a maximum of 3 times.

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 taken a maximum of 3 times.

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.

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.

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.

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.

EL 76
INDUSTRIAL ELECTRONIC CONTROL 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
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.

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.

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.

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.
Transfer Credit: CSU

EL 110
PRINCIPLES OF DC ELECTRONICS 4 UNITS
Class hours: 4 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
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.
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.
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.
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 taken a maximum of 2 times.
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.
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.
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.
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.
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: EL 60.
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.
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.
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.
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.
Transfer Credit: CSU

EL 205
BIO-MEDICAL ELECTRONICS 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, 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.
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.
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.
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.
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.
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.
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.
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.
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.
Transfer Credit: CSU

EL 244
INTRODUCTION TO MICROCOMPUTERS 4 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: EL 60 and EL 134.
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.
Transfer Credit: CSU

ENERGY

(Science/Engineering/Math Division)

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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.
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.
Transfer Credit: CSU; UC

ENGR 123
DESCRIPTIVE GEOMETRY **3 UNITS**
Class hours: 6 lecture/lab
Prerequisite: MATH 140 or TM 50 and ENGT 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.
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 analysis and calculations.
Transfer Credit: CSU; UC

ENGR 235 **(CAN ENGR 8)**
STATICS **3 UNITS**
Class hours: 3 lecture
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.
Transfer Credit: CSU; UC

ENGINEERING DESIGN TECHNOLOGY

(Technology Division)

ENGT 116
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 ENGT 16)
Transfer Credit; CSU

ENGT 117
GEOMETRICAL DIMENSIONING
AND TOLERANCING **2 UNITS**
Class hours: 2 lecture
Prerequisite: ARCH 111 or 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.
Transfer Credit: CSU

ENGT 131
FUNDAMENTALS OF
DESIGN 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.
Transfer Credit: CSU

ENGT 133
SHEET METAL LAYOUT
AND APPLICATIONS
WITH INVENTOR **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: ARCH 123 or ENGT 138 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.
Transfer Credit: CSU

ENGT 138
FUNDAMENTALS OF
COMPUTER AIDED
DESIGN 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 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 digital storage, enabling students to produce commercial quality copies using a computer-driven plotter and printer. This course may be taken a maximum of 2 times.
Transfer Credit: CSU; UC

ENGT 151
ADVANCED APPLICATIONS
OF COMPUTER AIDED
DESIGN W/AUTOCAD **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.
This course will assist students in the advanced applications of Computer Aided Design. They will utilize the AutoCAD system for customization, symbol libraries, menu development, and general applications in their particular fields.
Transfer Credit: CSU

ENGT 153
MACHINE DESIGN
WITH AUTOCAD **3 UNITS**
Class hours: 2 lecture/4 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: 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.
Transfer Credit: CSU

ENGT 160
AUTODESK MAP **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.
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.
Transfer Credit: CSU

ENGT 237
GRAPHICAL STATICS AND
STRENGTH OF MATERIALS **3 UNITS**
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 123 or ENGT 138 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: TM 50 or equivalent.
This is a course in the fundamental principles of graphical statics 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.
Transfer Credit: CSU

ENGT 255
AUTODESK VIZ RENDERING
AND SOLID MODELING
APPLICATIONS **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: ARCH 123 or ENGT 138 or equivalent with grades of Credit or "C" or higher or appropriate work experience.
Corequisite: None.
Recommendation: ENGT 153 or equivalent.
This course will assist students in creating advanced applications of solid modeling and applying shading and rendering techniques utilizing AutoDesk VIZ. They will use the AutoDesk VIZ system for basic theory as well as applications to their particular fields.
Transfer Credit: CSU

ENGT 256
INTRODUCTION TO AUTODESK
MECHANICAL DESKTOP **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: 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 deigns. Students receive instruction utilizing the most recent release of AutoCAD interfacing with Autodesk Mechanical Desktop.
Transfer Credit: CSU

ENGT 257
AUTODESK INVENTOR **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 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 Autodesk Inventor.
Transfer Credit: CSU

ENGT 258
DESIGN AND PRODUCTION
TECHNOLOGY WITH AUTOCAD **4 UNITS**
Class hours: 3 lecture/3 lab
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.
Transfer Credit: CSU

ENGT 259
SOLIDWORKS **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 assists students in creating three-dimensional (3-D) parametric part modeling, assembly modeling, surface modeling, and bills of materials. Students receive instruction utilizing the most recent release of SolidWorks software.
Transfer Credit: CSU

ENGLISH

(Liberal Arts Division)

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 ENGL 15 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.

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.

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.

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.

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.

ENGL 33 (Not degree applicable)
INDIVIDUALIZED WRITING **0.5 UNIT**
Class hours: 27 lab
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. This course may be taken a maximum of 4 times.

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.

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.

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.

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 the preparation of written materials, with particular emphasis on punctuation, capitalization, abbreviations, numbers, spelling, and manuscript formatting. Class hours may be used to qualify a student for the certified shorthand reporter's examination.

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.)
Transfer Credit: CSU; UC

ENGL 101
CRITICAL THINKING THROUGH LITERATURE **3 UNITS**
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
In this course students apply critical thinking skills, close textual analysis, and research practices in writing analytic, argumentative essays about literary fiction, poetry, and drama.
Transfer Credit: CSU

ENGL 102 (CAN ENGL 4)
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.
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.
Transfer Credit: CSU; UC

ENGL 106
INTRODUCTION TO LINGUISTICS **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.
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.
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.
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 52 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.
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.
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.
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.
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.
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.
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.
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.
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 2 times.
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.)
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.
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.
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.
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.
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.
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.
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.
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 offers a study of selected representative literature written by Americans of Asian or Pacific Island descent. Genres and their historical context include the novel, drama, short story, and poetry. Memoirs and essays may also be included.
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 a maximum of 2 times.
Transfer Credit: CSU; UC

ENGL 241
SCREENWRITING 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 a maximum of 2 times.
Transfer Credit: CSU; UC

ENGL 245
WORLD MYTHOLOGY
AS 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 studies the developments, structures, and techniques of comparable myths from a variety of cultures. Emphasis is on critical analysis of selected creation, hero, and fertility myths and literary expression.
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.
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.
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.
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.
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/1 lab
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.

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.

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.

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.

ESL 11 (Not degree applicable)
ESL FUNDAMENTAL
READING SKILLS **1.5 UNITS**
Class hours: 3 lecture
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
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 a maximum of 2 times.

ESL 14 (Not degree applicable)
PRONUNCIATION PLUS **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 a maximum of 2 times.

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.

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.

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.

ESL 22 (Not degree applicable)
ESL ORAL COMMUNICATION 1.5 UNITS
Class hours: 3 lecture/1 lab
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 a maximum of 2 times.

ESL 23 (Not degree applicable)
ESL SPELLING 1.5 UNITS
Class hours: 3 lecture/1 lab
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 a maximum of 2 times.

ESL 31 (Not degree applicable)
ESL READING 1.5 UNITS
Class hours: 3 lecture
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
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
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 a maximum of 2 times.

ESL 34 (Not degree applicable)
ESL STUDY SKILLS 1.5 UNITS
Class hours: 3 lecture
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
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 a maximum of 4 times.

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.
*Transfer Credit: CSU;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.
*Transfer Credit: CSU;UC**
**UC credit limits may apply. Any or all of these ESL courses with #'s combined: maximum credit, 8 units.*

NON-CREDIT (ADULT EDUCATION) CLASS

AED 90.36 (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. (Formerly ESL 36T)

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.
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.
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.
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.
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.
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.
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.
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.
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.
Transfer Credit: CSU; UC

GEOG 101L
PHYSICAL GEOGRAPHY
LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: GEOG 101 or equivalent with a grade of Credit or "C" or higher, or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This laboratory/field study is designed to supplement GEOG 101. It introduces the global physical world, its dynamics and spatial relationship. The physical environment is presented as a integration of the atmosphere, hydrosphere, lithosphere, and biosphere. Furthermore, this course will introduce the physical processes that have shaped the earth, including weather and climate, plate tectonics, hydrological cycle, weathering, and glaciation.
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.
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.
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.
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 a maximum of 2 times.
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.
*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.)
*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
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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
Transfer Credit: CSU

GRAPHIC DESIGN

SEE ART

(Art and Design)

HEALTH EDUCATION

(HPE/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.
Transfer Credit: CSU; UC

HED 101
STRESS MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to give students an understanding of physiological and mental determinants and manifestations of stress. Topics include the nature and physiology of stress, mental stress, stress as it relates

to disease, emotions, and personality, behavior modification, communication, time management, physical exercise and nutrition. Students are also trained in a variety of stress management techniques including imagery, progressive muscle relaxation, biofeedback, problem solving techniques, state and trait anxiety inventories, centering, breathing exercises, yoga, mediation, art therapy, music therapy, and humor therapy.
Transfer Credit: CSU

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).
Transfer Credit: CSU; UC

HED 200
NUTRITION FOR HEALTH, 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 a maximum of 4 times. 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: None.
Corequisite: HO 9L.
This course is designed to teach the student the basic knowledge, skills, and attitudes necessary to perform pre-hospital emergency care. The didactic portion will present various Basic Life Support (BLS) assessment tools that are included in the Emergency Medical Technician-I (Basic) scope of practice. Areas of instruction include scene and physical patient assessment, safe and the proper utilization of emergency medical equipment. The information presented will assist in the development of critical thinking skills required to complete a systematic and nationally standardized approach to caring for the ill and injured patient. Successful candidates in HO 9 and HO9L will be eligible for verification of course completion. The combination of HO9 and HO 9L meets the didactic, certifying skills exam, and clinical experiences set forth in the California Code of Regulations for Emergency medical Technician hours of instruction. Additional testing and certification process is required to use the name Emergency Medical Technician-I Basic. This course may be taken a maximum of 2 times and does not guarantee state certification.

HO 9L (Not degree applicable)
EMERGENCY MEDICAL TECHNICIAN I LAB **2 UNITS**
Class hours: 3.5 per week classroom learning laboratory and 3.0 hours arranged supervised ambulance and hospital emergency room experience.
Prerequisite: None.
Corequisite: HO 9.
This course is designed to teach the student the practical skills necessary to perform per-hospital emergency care. Areas of instruction include scene and physical patient assessment, safe and proper utilization of equipment, and hospital and ambulance clinical experience. Successful candidates in HO 9 and HO 9L will be eligible for verification of course completion. The combination of HO 9 will be eligible for verification of course completion. The combination of HO 9 and HO 9L meets the didactic, certifying skills exam, and clinical experiences set forth in the California Code of Regulations for Emergency medical Technician hours of instruction. Additional testing and certification process is required to use the name Emergency medical Technician process is required to use the name Emergency Medical Technician-1 or Basic. This course may be taken a maximum of 2 times and does not guarantee state certification. Uniform will be required. Clearance of criminal background check may be required prior to clinical field experience.

HO 53
ELECTROCARDIOGRAPHY **1 UNIT**
Class hours: .67 lecture/1 lab
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.

HO 54
MEDICAL LABORATORY SKILLS **1 UNIT**
Class hours: .67 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide the student will knowledge and skills concerning the theoretical and procedural requirements for performing several alb procedures. This course follows the 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).

HO 55
PHLEBOTOMY PROCEDURES 1 UNIT
Class hours: .67 lecture/1 lab
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.

HO 56
MEDICATION CALCULATIONS 1 UNIT
Class hours: 2 lecture
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 a maximum of 2 times.

HO 100
HEALTH OF UNDERSERVED 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 and other 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 projections, 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;UC

HO 150
PROFESSIONAL/ CPR AND FIRST AID 3 UNITS
Class hours: 3 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 will mask and bag-valve mask; automated external defibrillator (AED); 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.
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.
Transfer Credit: CSU

HO 152 (CAN FCS 2)
NORMAL AND THERAPEUTIC NUTRITION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: A&P 150 and A&P 151 or equivalent with grades 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.
Transfer Credit: CSU

HO 236
LIFE SPAN/HEALTH ISSUES 1 1 UNIT
Class hours: 1 lecture
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: 1 lecture
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: Satisfactory completion of the English Placement process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Satisfactory completion of the Reading Placement Process or READ 54 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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 101, HIST 102 and HIST 103 combined: maximum credit, 2 courses.*

HIST 102 (CAN HIST SEQ B)(CAN HIST 8)
POLITICAL AND SOCIAL HISTORY OF THE UNITED STATES: 1500S TO 1876 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.
Recommendation: 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 201)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 101, HIST 102 and HIST 103 combined: maximum credit, 2 courses.*

HIST 103 (CAN HIST SEQ B)(CAN HIST 10)
POLITICAL AND SOCIAL HISTORY OF THE UNITED STATES: 1877 TO PRESENT 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.
Recommendation: 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 202)
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 101, HIST 102 and HIST 103 combined: maximum credit, 2 courses. HIST 103and HIST 210 combined: maximum credit, one course.*

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.
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.
Transfer Credit: CSU; UC

HIST 204
WOMEN IN AMERICAN HISTORY 3 UNITS
Class hours: 3 hours
Prerequisite: None
Corequisite: None
Recommendation: Satisfactory completion of an American history survey course, the Reading Placement Process or READ 54, and the English Placement process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This lecture/discussion course will survey women's history in the United States from colonial times to the present. It will focus on defining the similarities and differences in historical experiences of women based on their social class, race, and ethnicity. Topics of concentration include the changing roles of women in the private and public spheres; an analysis of the agendas, strategies, and consequences of the women's movements; and the historical evolution of the definitions of feminism and social construction of gender. This course is not open to students who are enrolled in or have received credit in WS 204.
Transfer Credit: CSU;UC

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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. HIST 103 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.
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.
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.
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) (CAN HIST 2)
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.
Transfer Credit: CSU; UC

HIST 242 (CAN HIST SEQ A) (CAN HIST 4)
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.
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 studied, 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.
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.
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.
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.
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. This course may be taken a maximum of 2 times.
Transfer Credit: CSU, UC credit determined after admission

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 student. Everyone will be encouraged to develop his/her own doctrine of humanity. College level reading is required.
Transfer Credit: CSU; UC

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 sterotypes created in Western culture. The various means artists have used to counter those sterotypes 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. Writing a research paper is a significant component of the course. Reading of literature theory, and criticism is required. 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: Student must be at least 18 years of age or have parental consent in order to take this course.
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 the examination of visual art, cinema, television, video, and advertising. Close attention will be given to how popular and artistic cultures shape identity and representation. Writing a research paper is a significant component of the course. College level reading is required. This course is not open to students who are enrolled in or who have received credit in ART 109.
Transfer Credit: CSU; UC

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

INST 151
PRINCIPLES OF RECOVERY AND PSYCHOSOCIAL REHABILITATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an overview of the philosophy, practices, and perspectives used in working with people and families with mental illness. The course will introduce and familiarize students with proven recovery and rehabilitation methods that allow individuals to reintegrate into society.
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

INST 152
HELPING RELATIONSHIPS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The course will introduce and familiarize students with skills and theories necessary for creating an effective partnership between service provider and service recipient. Students will learn techniques for service planning, advocating, empowering, and community reintegration.
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.
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.
Transfer Credit: CSU; UC

JAPN 201 (CAN JAPN 8)
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.
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.
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.
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.
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.
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, Talon Marks; the online newspaper, talonmarks.com; 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 a maximum of 4 times.

JOUR 100 (CAN JOUR 4)
MASS COMMUNICATIONS
AND SOCIETY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
The course examines the impact of mass media in national and international political, economic, cultural and behavioral contexts. It assesses contemporary trends in media-society relations; historical facts that have shaped the structures, practices and products of the mass media industries and trends in media-society relations.
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.
*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 a maximum of 4 times. Credit/No Credit option available for non-journalism majors.
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 a maximum of 4 times. Credit/No Credit option available for non-journalism majors.
Transfer Credit: CSU

JOUR 106
TALONMARKS.COM **1 UNIT**
Class hours: 0.5 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: JOUR 101 and ENGL 52 or equivalent with grades of Credit or "C" or higher, or concurrent enrollment. JOUR 103 or equivalent with grades of Credit or "C" or higher, or concurrent enrollment.
This course focuses on media article writing and digital story telling using the online school newspaper, talonmarks.com as a practical laboratory. 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 and edit the stories and prepare them for dissemination. Ethical and legal aspects of communication are also covered. This course may be taken a maximum of 4 times.
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.
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 112
COPY EDITING SKILLS **1.0 UNITS**
Class hours: 1 lecture/0.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment or completion of JOUR 101 with a grade of "C" or higher.
This course focuses on copy editing and word skills for journalists. Students will practice applying Associated Press style rules to stories and improving sentences structure, spelling, and general grammar skills commonly found in news stories. This course is recommended for journalism students who wish to improve copy editing skills. Skills acquired will be useable in various job markets, including newsletter, newspaper, magazine, book, and online publishing.
Transfer Credit: CSU

JOUR 120
INTERNET FOR JOURNALISTS **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 121 or equivalent with a grade of Credit or "C" or higher.
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 a maximum of 4 times.
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.
Transfer Credit: CSU

JOUR 160L
COLLEGE MAGAZINE PRODUCTION **1 UNIT**
Class hours: 3 lab
Prerequisite: None.
Corequisite: JOUR 103 or JOUR 105 or PHOT 102 or PHOT 112 or ENGL 240 or ART 188.
This course offers study and practical experience in planning content and layout and in editing the college magazine. If provides a format for the application of photojournalism,

feature article and page design skills, and writing skills. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

JOUR 170
BROADCAST NEWS 1 UNIT
Class hours: 1 lecture/3 lab
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 a maximum of 4 times.
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 a maximum of 4 times.
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.
*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.
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.
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 51 or MTT 76 and MTT 52 or equivalent with grades 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 a maximum of 4 times.

MTT 2L
MASTERCAM LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: MTT 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This lab course is intended to complement MasterCam classes. It is designed to give practical experience in working with the current release of the software program. The course will increase the skill and output of the student in areas of his/her choice. This course may be taken a maximum of 4 times.

MTT 3L
VIRTUAL GIBBS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: MTT 76 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This lab course is intended to complement Virtual Gibbs classes. It is designed to give practical experience in working with the current release of the software program. The course will increase the skill and output of the student in areas of his/her choice. This course may be taken a maximum of 4 times.

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.

MTT 51
MASTERCAM INTRODUCTION 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None
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.

MTT 52
SETUP AND OPERATION OF CNC MILLING MACHINES 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course instructs students in the safe and accurate setup and production operation of CNC milling machines of up to 4 axes. Students will learn how to load programs, align fixtures, select offsets, select cutter radius compensation, and run first article parts.

MTT 53L
MACHINIST LABORATORY 0.5 UNIT
Class hours: 2 lab
Prerequisite: MTT 100, MTT 60, or MTT 62 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
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.

MTT 54
CNC BLUEPRINT READING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
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.

MTT 55
SUPPLEMENTAL MACHINE SHOP STUDIES 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to broaden the knowledge of the student machinist with a survey of blueprint reading, metallurgy, metrology, tooling, and use of the Machinery's Handbook.

MTT 56
CNC SHOP INSPECTION 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to give students a complete understanding of metrology and to develop skills using shop instruments for validation of part geometry. Students will be generating inspection reports from their findings.

MTT 57
SETUP AND OPERATION OF CNC LATHES 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course instructs students in the safe and accurate set up and production operation of CNC lathes. Students will learn how to create programs using MasterCam, load programs, select offsets, select cutter radius compensation, and will run first article parts. This course may be taken a maximum of 2 times.

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).

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.

MTT 70
INTRODUCTION TO MODEL MAKING AND PROTOTYPE DESIGN 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will introduce students to model making and prototype design by creating 3D solid parts using Rhinoceros software. Students will also learn how to export 3D models to Roland's computer aided Machining software and create appropriate tool paths using Modela software.

MTT 71
PROTOTYPE AND MODEL FABRICATION 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will prepare students in the fabrication of prototypes and models. Students will learn how to import a 2D model created by software, how to scan and digitize models using Dr. Picza software, and how to create models using Modela 3D Text. Students will generate tool paths using Roland's Modela software, transfer toolpaths to CNC machines, and fabricate prototypes and models.

MTT 76
GIBBSCAM INTRODUCTION 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course prepares students to operate the Gibbscam Programming System in conjunction with various multi-axis Computer Numerical Control (CNC) simulators. Students will learn to create and import computer aided drafting (CAD) geometry, create proper job plans, and input the resultant data into virtual CNC machinery.

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.

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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.

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.
Transfer Credit: CSU

MTT 154
CNC PROGRAM OPTIMIZATION 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: MTT 51 or MTT 76 and MTT 170 or appropriate work experience.
This course is designed to provide the student with the skills required to optimize Computer Numerical Control (CNC) programs and operations. The student will learn how to get the most out of CNC machine tools by increasing equipment utilization and decreasing equipment downtime. Course work also includes CNC program verification, optimization, and related service and maintenance issues.
Transfer Credit: CSU

MTT 170
COMPUTER NUMERICAL
CONTROL PROGRAMMING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
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.
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.
Transfer Credit: CSU

MANUFACTURING TECHNOLOGY

(Technology Division)

MFGT 50
HAZ-MAT 1.5 UNITS
Class hours: 1.5 lecture
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.

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 Manufaturing 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 4 times.

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.

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.

MFGT 53
STATISTICAL PROCESS CONTROL (SPC) 1.5 UNITS
Class hours: 1.5 lecture
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.

MFGT 54
ULTRASONIC LEVEL I TESTING 1.5 UNITS
Class hours: 1.8 lecture/.5 lab
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.

MFGT 55
QUALITY CONTROL (QC) 1.5 UNITS
Class hours: 1.5 lecture
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.

MFGT 56
ISO 9000 QUALITY STANDARDS 1.5 UNITS
Class hours: 1.5 lecture
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.

MFGT 57
TOTAL QUALITY MANAGEMENT (TQM) 1.5 UNITS
Class hours: 1.5 lecture
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.

MFGT 58
BENCHMARKING 1.5 UNITS
Class hours: 1.5 lecture
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.

MFGT 59
DESIGN OF EXPERIMENTS (DOE) 1.5 UNITS
Class hours: 1.5 lecture
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.

MFGT 60
QUALITY ASSURANCE PRINCIPLES 1.5 UNITS
Class hours: 1.5 lecture
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.

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.
Transfer Credit: CSU

MATHEMATICS

(Science/Engineering/Math Division)

(FOR ADDITIONAL COURSES SEE TECHNICAL MATHEMATICS)

MATH 5
MATHEMATICS LEARNING STRATEGIES 1 UNITS
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Concurrent enrolment in MATH 20, MATH 40, MATH 60, MATH 80, MATH 80A, or MATH 80B.
Recommendation: None.
This course is designed to assist the student in developing learning skills and study habits that are important for all college level course work. Emphasis will be placed on those learning skills and study habits that are unique to the study of mathematics. This student will develop quantitative literacy by practicing arithmetic and algebraic structures including but not limited to "mathematical

facts," number sense and number theory, proportional reasoning including rational expressions and equations, and the real number system and its properties. Additional topics related to the development of learning skills and study habits may include affective factors influencing learning styles and the study of mathematics, effective management of classroom learning and personal study habits, problem-solving and reasoning skills, test preparation and test-taking strategies, appropriate use of technology, and support services for students of mathematics. This course is offered on a credit/no credit basis only. This course may be taken a maximum of 3 times.

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.
This class may be taken in Programmed Learning Sections. See your counselor for details.

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 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.

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.

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)

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.

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.

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 a maximum of 2 times.

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 a maximum of 2 times.

MATH 100 (CAN MATH 2)
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.
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 (CAN MATH 4)
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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 110A and MATH 110B combined: maximum credit, one course.*

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.
*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.
*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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 114 and MATH 150 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.
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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 116 and MATH 170 combined: maximum credit, one course.*

MATH 140 (CAN MATH 8)
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.
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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 114 and MATH 150 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.
Transfer Credit: CSU

MATH 170 (CAN MATH SEQ B) (CAN MATH SEQ C)(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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. MATH 116 and MATH 170 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.
Transfer Credit: CSU

MATH 190(CAN MATH SEQ B)(CAN MATH SEQ C) (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.
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.
Transfer Credit: CSU

MATH 220 (CAN MATH 22) (CAN MATH SEQ C)
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.
Transfer Credit: CSU; UC

MATH 240 (CAN MATH 24)
CALCULUS AND DIFFERENTIAL EQUATIONS 4 UNITS
Class hours: 4 lecture
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.
Transfer Credit: CSU; UC

NON-CREDIT (ADULT EDUCATION) CLASS

AED 90.91 (Not degree applicable)
SUPERVISED 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 9T)

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.

MA 62A
HEALTH INSURANCE AND BILLLING **1.5 UNITS**
Class hours: 1.5 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, government medical care programs with specialized billing procedures, role of the insurance officer, and aspects of related medical professional liability. (This course is not open to students who have received credit for MA 62.)

MA 62B
ICD-9 AND CPT CODING **1.5 UNITS**
Class hours: 1.5 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: MA 62A and MA 161 or equivalent with grades of Credit or "C" or higher
This course presents the International Classification of Diseases, 9th revision (ICD-9-CM) Current Procedural Terminology (CPT) coding process utilized for health care reimbursement. Specialized billing procedures for government medical care, role of the coder, and aspects of related medical professional liability will be presented.

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.

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.

MA 67
MEDICAL OFFICE ADMINISTRATION **3 UNITS**
Class hours: 3 lecture
Prerequisite: MA 60.
Recommendation: BCOT 62, and BCOT 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.

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.
Corequisite: MA 66 and MA 67 or prior completion with a grade of Credit or "C" or higher.
This course is designed to provide opportunities for the student to intern a medical facility while receiving supervised instruction in direct patient care.

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: MA 60, MA 62, MA 64, MA 161, HO 53, HO 54 and HO 55 or equivalent with grades of Credit or "C" or higher.
Corequisite: Enrollment in the Medical Assistant vocational program with 7 or more units including occupational work experience. MA 66 and MA 67 or prior completion with a grade of Credit or "C" or higher.
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 taken a maximum of 4 times 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.
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.

MET 50A
HEAT TREATING FERROUS MATERIALS **1.5 UNITS**
Class hours: 1.5 lecture
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.

MET 51
WELDING METALLURGY **2 UNITS**
Class hours: 2 lecture
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.

MET 52L
METALLURGY SPECIALTY LAB 0.5 UNIT
Class hours: 1.5 lab
Prerequisite: None
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 a maximum of 4 times.

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.

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, or appropriate work experience.
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.

MET 55
LABORATORY PROCEDURES 1 UNIT
Class hours: 1 lecture/1 lab
Prerequisite: None.
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.

MET 56
SURVEY OF NONFERROUS HEAT TREAT 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
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.

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 4 times.

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.
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.
Transfer Credit: CSU

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.
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.
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.
Transfer Credit: CSU; UC

MULTIMEDIA

SEE ART

(Art and Design)

MUSIC

(Fine Arts/Communications Division)

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.

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.
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.
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.
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.
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

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.
Transfer Credit: CSU; UC

MUS 106 (CAN MUS 2)
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.
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.
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.
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.
Transfer Credit: CSU; UC

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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
Transfer Credit: CSU; UC

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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU

MUS 126
PEP BAND **2.5 UNITS**
Class hours: 2 lecture/2 lab
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 a maximum of 4 times.
*Transfer Credit: CSU;UC**
**UC credit limits may apply. MUS 126 and Physical Education courses with ##'s combined: maximum credit, 4 units.*

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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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.
Transfer Credit: CSU

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 a maximum of 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU; UC

MUS 138A
COLLEGIATE CHORALE 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: Audition.
Corequisite: None.
Recommendation: None.
This course is designed for the student who has had some 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 the Renaissance to the twentieth century and beyond will be studied and performed with a particular emphasis on major choral works. Required participation in concerts may include both on-campus and off-campus

events. This course may be taken a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU

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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
Transfer Credit: CSU; UC

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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 2 times.
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: .25 lecture/1.75 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 a maximum of 3 times.

NRSG 26 (Not degree applicable)
CLINICAL WORKSHOP 2 0.5 UNIT
Total semester hours: .25 lecture/1.75 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 a maximum of 3 times.

NRSG 200
PHARMACOLOGY FOR NURSES 2 UNITS
Class hours: 2 lecture
Prerequisite: A&P 150 and A&P 151 or equivalent with grades 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.
Transfer Credit: CSU

NRSG 210
FUNDAMENTALS OF NURSING 5 UNITS
Class hours: 3 lecture/6 lab
Prerequisite: Admission to Nursing Program.
Corequisite: NRSG 211 and NRSG 213A.
Recommendation: None.
The focus of this course is on the instruction of theory and beginning clinical application of the Nursing Process based on the Roy Adaptation Model and concepts related to the role of the Associate Degree Nurse as a Provider of Care for geriatric patients in long-term care settings. Emphasis is also placed on the beginning application of therapeutic communication techniques and the acquisition of fundamental concepts and skills required for patient care. 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: .5 lecture
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 5 UNITS
Class hours: 2.5 lecture/7.5 lab
Prerequisite: NRSG 210 with a grade of Credit or "C" or higher. For Option B students: Possession of an active Licensed Psychiatric Technician license and admission to the Nursing Program.
Corequisite: NRSG 211 may be taken prior to admission or concurrent with first semester of admission. Courses must be completed with a grade of Credit or "C" or higher to progress to the second semester.
Recommendation: NRSG 211 and NRSG 213, or equivalent with grades of Credit or "C" or higher or concurrent enrollment.
The focus of this course is on the theory and clinical application of the Nursing Process based on the Roy Adaptation Model and concepts related to the role of the Associate Degree Nurse as a Provider of Care for acutely ill medical-surgical patients with specific conditions. Adult physical assessment skills continue to be applied to patients in an acute care setting. 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 213A
MAJOR DRUGS AND NURSING MANAGEMENT I 0.5 UNIT
Class hours: 0.5 lecture
Prerequisite: 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.(Formerly NRSG 213)
Transfer Credit: CSU

NRSG 213B
MAJOR DRUGS AND NURSING MANAGEMENT II 1 UNIT
Class hours: 1 lecture
Prerequisite: NRSG 213A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None
This course continues the study of the fundamentals of pharmacology as it relates to the nursing management of drug therapy. Prototype drugs, selected from the major drug classes, are used to illustrate important drug facts. This course may be taken a maximum of 3 times.
Transfer Credit: CSU

NRSG 215
ADVANCED PLACEMENT BRIDGE 1 UNIT
Class hours: 2 lecture
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.
Transfer Credit: CSU

NRSG 220
MEDICAL-SURGICAL NURSING 3 5.5 UNITS
Class hours: 3 lecture/7.5 lab
Prerequisite: NRSG 211, NRSG 212, NRSG 213A or equivalent with grades of Credit or "C" or higher. For Option B and E students: Admission to the Nursing Program.
Corequisite: NRGS 213B.
Recommendation; None.
The focus of this course is on the theory and clinical application of the Nursing Process based on the Roy Adaptation Model and concepts related to the role of the Associate Degree Nurse as the Provider of Care for medical-surgical patients and patients with women's health disorders in acute care settings. The role of the nurse as Manager of Care is 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.
Transfer Credit: CSU

NRSG 222
MATERNAL/CHILD NURSING 5.5 UNITS
Class hours: 3 lecture/7.5 lab
Prerequisite: NRSG 220 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course focuses on the theory and clinical application of the Nursing Process based on the Roy Adaptation Model and concepts related to the role of the Associate Degree Nurse as a Provider of Care for patients giving birth in the acute care setting and care of children in acute and clinic settings. 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.
Transfer Credit: CSU

NRSG 230
PSYCHOSOCIAL AND COMMUNITY NURSING 5 UNITS
Class hours: 3 lecture/7.5 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 Nursing Process based on the Roy Adaptation Model and concepts related to the role of the Associate Degree Nurse in the care of clients in acute psychiatric and community-based settings. 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.
Transfer Credit: CSU

NRSG 232
MEDICAL-SURGICAL NURSING 4 5 UNITS
Class hours: 2.56 lecture/7.5 lab
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 concepts related to the role of the Associate Degree Nurse as a Provider of Care for patients with complex medical-surgical conditions in acute care settings. Continued emphasis is paced on the role of the nurse as Manager of Care and as a Member of the Discipline of Nursing. 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.
Transfer Credit: CSU

NRSG 240
MEDICAL-SURGICAL NURSING 5 **5 UNITS**
Class hours: 2.5 lecture/7.5 lab
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 focus of this coursed is on the theory and clinical application of the Nursing Process based on the Roy Adaptation Model and concepts related to the role of the Associate Degree Nurse as a the Provider of Care for patients with increasingly complex medical-surgical conditions in acute care settings and exposure to specialty care areas, The nurse's role as Manager of Care continues to be emphasized with increased focus on delegation and the role of the nurse as Member of the Discipline of Nursing. 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.
Transfer Credit: CSU

NRSG 242
PROFESSIONAL ROLE TRANSITION **3 UNITS**
Class hours: .5 lecture/7.67 lab
Prerequisite: NRSG 240 or equivalent with a grade of Credit or "C" or higher.
The focus of this course is on the theory and clinical application of the Nursing Process based on the Roy Adaptation Model and concepts related to the role of the Associate Degree Nurse as a Provider of Care, Manager of Care and a Member of the Discipline of Nursing for medical-surgical patients in the acute care setting, This course facilitates the transition from student nurse to graduate nurse. The students participates as a preceptee member of the health care team and assumes responsibility for a group of patients under the direct supervision of a registered nurse. Course content includes legal and ethical issues related to nursing practice. 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
Transfer Credit: CSU

NRSG 251
BASIC ADULT PHYSICAL ASSESSMENT **1 UNIT**
Class hours: .5 lecture/1.5 lab
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.
Transfer Credit: CSU

NON-CREDIT (ADULT EDUCATION) CLASS

AED 90.47 (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 47T)

OCEANOGRAPHY

(Science/Engineering/Math)

See Earth Science 104

OFFICE TECHNOLOGIES

SEE BCOT

(Business Computerized Office Technologies)

PARALEGAL

SEE BL

(Business Paralegal)

PHARMACY TECHNICIAN

(Health Occupations Division)

PHAR 45
RETAIL PRODUCTS FOR PHARMACY CLERKS **2 UNITS**
Class hours: 2 lecture
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.

PHAR 47
PHARMACY CLERK CLINICAL EXPERIENCE **2 UNITS**
Class hours: .33 lecture/6.83 variable semester lab hours
Prerequisite: PHAR 45, PHAR 60, and PHAR 60L or equivalent with grades of Credit or "C" or higher. 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.

PHAR 50
PHARMACEUTICS **1.5 UNITS**
Class hours: 1.5 lecture
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.

PHAR 60
PHARMACY INTRODUCTION **2 UNITS**
Class hours: 2 lecture
Prerequisite: None.
Corequisite: PHAR 60L.
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.

PHAR 60L
PHARMACY SKILLS LAB
INTRODUCTION 1 UNIT
Class hours: .67 lecture/1.33 lab
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 40L)

PHAR 62
PHARMACY OPERATIONS I 0.5 UNIT
Class hours: .67 lecture/.33 lab
Prerequisite: PHAR 60 or equivalent with a grade of Credit of "C" or higher.
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.

PHAR 63
PHARMACY OPERATIONS II 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: PHAR 62 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Verification of typing proficiency at 30 wpm or BCOT 135 or equivalent with a grade of Credit or "C" or higher.
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.

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.

PHAR 73/74
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 2 times based on the number of hours on the job. (Formerly PHAR 173/174)

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.

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.

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.

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.
This course is designed to provide the student with practical experiences in selected out-patient community pharmacy settings working under the supervision of a registered pharmacist.

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.
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.

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.
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.
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.
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.
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.
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.
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.
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.
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.
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.
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 photography course is a continuation and expansion of principles taught in the introductory class. This course includes the use of special film processing techniques, advanced exposure techniques, archival print processing, toning techniques, and an introduction to large format cameras. Special effects techniques, lighting set-ups, color film and digital photography will also be covered.
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.
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.
Transfer Credit: CSU

PHOT 122
INTRODUCTION TO
COLOR 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 provides instruction in the basic principles of color photography with darkroom experience and digital processes. Negative and transparency film are covered developing and darkroom and digital printing techniques are investigated. Emphasis is on photography as a fine art, stressing beginning visual awareness.
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 and digital techniques, and development of personal vision and style.
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 from its inception, through postmodernism to the present. The major concepts of photographic representation and the impact of photography on society are also covered.
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 a maximum of 4 times.
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 students' knowledge and skills beyond Intermediate Photography. This course will cover advanced large format camera use, studio strobe lighting techniques, digital photography, and professional presentation of photographs. At the end of the semester, student will be expected to present and portfolio of photographic prints that represent a body of work. Class will include black-and –white as well as color assignments.
Transfer Credit: CSU

PHOT 220
ADVANCED
COLOR PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 124 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
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, computerized image editing and digital output methods, and camera techniques. This course may be taken a maximum of 2 times.
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 course in the theory and practice of portraiture. Lectures will present lighting and contemporary retouching techniques for professional studio portraiture. Topics also include self-portraiture, extended environmental portraiture, typological portraits, narrative, documentary portraiture, candid camera, the snapshot aesthetic,

figurative portraiture, directorial portraiture, and fashion. Issues regarding idolatry, gender and sexuality, "the gaze," ethics, exploitation, and legal questions will be explored.
Transfer Credit: CSU

PHOT 232
APPROACHES TO STUDIO LIGHTING 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 a variety of approaches to studio lighting in photography. Concept development, and execution, in the studio environment, as well as 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 a maximum of 2 times.
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, or a combination of PHOT 100 and PHOT 110 or equivalent with a grade of "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.
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 is a course in the theory and practice of experimental photography. Content includes a variety of approaches that differ from standard photography, including experiments with cameraless photography, photomontage, change procedures, 3-D photography, the slide show, and new genres of photo-based art-making involving sculpture, installation, projection, and performance.
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.
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.
Transfer Credit: CSU; UC

PHOT 252
PHOTOGRAPHY OF THE LANDSCAPE 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 landscape through the medium of photography. Theories of photographic approaches to the landscape and its development and industrialization are stressed. Topics include preparation for field work, film types, exposure techniques, appropriate equipment and care, and printing techniques. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

PHYSICAL EDUCATION

(HPE/Athletics Division)

PE 3 (Not degree applicable)
INDIVIDUALIZED DANCE DEVELOPMENT 1.0 UNIT
Class hours: 4 lab
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.

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.
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 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.
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.
Transfer Credit: CSU; UC

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.
*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;UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

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.
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.
*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.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with #'s combined: maximum credit, 8 units.*

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 a maximum of 4 times..
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

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 a maximum of 4 times.
Transfer Credit: CSU; UC

PE 126
LIFEGUARD TRAINING 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: PE 150A, swimming, beginning or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course offers instruction and practice in American Red Cross Lifeguard Training and Conditioning. Emphasis will be placed on personal safety, safety and self-rescue in the use of small craft, elementary forms of rescue, the swimming rescue, and artificial respiration. American Red Cross certification in Lifeguard Training will be available upon completion of the class. Students must be at least 15 years old at start of semester to qualify for American Red Cross (ARC) certificate "Lifeguard Training and Community First Aid and Safety." This course may be taken a maximum of 4 times.
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 a maximum of 4 times.
*Transfer Credit: CSU;UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units*

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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

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 a maximum of 4 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 136 ##
INDOOR CYCLING 1 UNIT
Class hours: .5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Students will receive practical instruction in ways to improve their cardiorespiratory endurance, muscular endurance, flexibility, and body composition through indoor bicycling. Basic drills and intensity training will be included. Lectures may include. Lectures may include the areas of basic nutrition, body composition, posture analysis, and principles of safe and effective exercise on an indoor bicycle. This course may be taken a maximum of 4 times.
*Transfer Credit: CSU;UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 4 times.
*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.
*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 times.
*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 UNIT
Class hours: 0.5 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 a maximum of 4 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all these PE courses with ##'s combined; maximum credit, 4 times.*

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 a maximum of 4 times.
*Transfer Credit: CSU;UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units*

PE 148##
BODY SCULPTING 1 UNIT
Class hours: .5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed as an exercise program consisting of activities to improve the participant's muscular tone, strength, endurance, and flexibility. The student will participate in body sculpting exercises using various resistance techniques and equipment. This course may be taken a maximum of 4 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 149A ##
BEGINNING JOGGING FOR FITNESS 1 UNIT
Class hours: .5 lecture/1.5 lab
Prerequisite: None
Corequisite: None
Recommendation: None
This course is designed to be an introduction to a running program that will benefit a board spectrum of fitness levels. This class will incorporate a weekly mileage progression with attention to running mechanics and injury prevention. This course may be taken a maximum of 2 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

PE 149B ##
INTERMEDIATE JOGGING FOR FITNESS 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None
Corequisite: None
Recommendation: Ability to run one mile under 12 minutes.
This course is designed to build a moderate running base and improve stride mechanics through various training techniques. Training will be monitored through weekly mileage progression, heart rate training, and stride mechanics. This course may be taken a maximum of 2 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 4 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.

*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 a maximum of 2 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 2 times.
*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 a maximum of 2 times.
*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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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.
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.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 4 times.
Transfer Credit: CSU; UC

PE 200##
BASEBALL **3 UNITS**
Class hours: 10 hrs per week - Daily practice
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 a maximum of 4 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

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 a maximum of 4 times.
*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
Prerequisite: None.
Training for intercollegiate competition in basketball. This course may be taken a maximum of 4 times.
*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
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 a maximum of 4 times.
*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
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 a maximum of 4 times.
*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 a maximum of 4 times.
*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
Prerequisite: None.
This course is designed to provide training for women in intercollegiate competition in cross-country. This course may be taken a maximum of 4 times.
*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
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 a maximum of 4 times.
*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 cardio-vascular training. This course may be taken a maximum of 4 times.
*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 a maximum of 2 times.
*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
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 a maximum of 4 times.
*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 a maximum of 4 times.
*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 a maximum of 4 times.
*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
Prerequisite: None.
Training for intercollegiate competition in women's softball. This course may be taken a

maximum of 4 times.
*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 a maximum of 4 times.
*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
Prerequisite: None.
Training for intercollegiate competition in swimming. This course may be taken a maximum of 4 times.
*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
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 a maximum of 4 times.
*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
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 a maximum of 4 times.
*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 a maximum of 4 times.
*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
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 a maximum of 4 times.
*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
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 a maximum of 4 times.
*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
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 a maximum of 4 times.
*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 a maximum of 4 times.
*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
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 a maximum of 4 times.
*Transfer Credit: CSU; 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 a maximum of 4 times.
*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 taken a maximum of 4 times.
*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
Prerequisite: None.
Training for intercollegiate competition in water polo. This course may be taken a maximum of 4 times.
*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 a maximum of 4 times.
*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
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 a maximum of 4 times.
*Transfer Credit: CSU; UC**
**UC credit limits may apply. Any or all of these PE courses with ##'s combined: maximum credit, 4 units.*

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 a maximum of 4 times.
*Transfer Credit: CSU; UC**
**UC Credit limits may apply. Any or all of these PE courses with ##'s combined; maximum credit, 4 units.*

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 experience 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 that affect the concept of sport. The course informs the coach and athlete how to improve sport performance through psychological means.
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: 1 lecture/3 lab
Prerequisite: None
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: None
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 265
LEADERSHIP: THEORY & PRACTICE FOR THE FITNESS PROFESSIONAL **3 UNITS**
Class hours: 3 lecture
Prerequisite: None
Recommendation: None
This course is designed to cover topics related to leadership in the fitness industry (athletic coach, physical education instructor, personal trainer, and athletic trainer) and the various styles, theories, and implementation of leadership skills into a fitness setting. Understanding fitness leadership theories will enable the student to establish an effective connection with constituents.
Transfer Credit: CSU;UC

PE 271A
OCCUPATIONAL WORK EXPERIENCE IN ATHLETIC **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.

Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Athletic Training, in a declared Athletic Training or Exercise Science major. One unit of Occupational Work Experience in Athletic Training 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 a maximum of 4 times. (Formerly PE 271)
Transfer Credit: CSU

PE 271B
OCCUPATIONAL WORK EXPERIENCE IN FITNESS **1 UNIT**
Class hours: 1 lecture
Prerequisite: None
Corequisite: Enrollment in 7 or more units, including Occupational Work Experience in Fitness, in a declared Fitness Specialist or Exercise Science major. One unit of Occupational Work Experience in Fitness Specialist requiring 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 the instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses the 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 project is completed. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

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.
*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 current enrollment 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
Prerequisite: Admission into 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.
Transfer Credit: CSU

PTA 120
KINESIOLOGY **4 UNITS**
Class hours: 3 lecture/3 lab
Prerequisite: A&P 150 and A&P 151 or equivalent with grades of Credit or "C" or higher.
Corequisite: None
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.
Transfer Credit: CSU

PTA 125
PATHOLOGY **3 UNITS**
Class hours: 3 lecture
Prerequisite: PTA 110 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None
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
Transfer Credit: CSU

PTA 126
CLINICAL PRACTICUM I **4 UNITS**
Class hours: 221 variable semester lab hours
Prerequisite: None.
Corequisite: None
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.
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 AND DEVELOPMENT 3 UNITS
Class hours: 3 lecture.
Prerequisite: Acceptance into the Physical Therapist Assistant Program.
This course will introduce the student to concepts and physical therapy principles applied to the developmental process from gestation to adulthood. Emphasis will be placed on neurodevelopmental techniques used for abnormal development and for patients with neurologic or musculoskeletal disorder occurring in those age groups.
Transfer Credit: CSU

PTA 129
PHYSICAL THERAPY ASPECTS OF AGING AND INTEGUMENTARY MANAGEMENT 1.5 UNITS
Class hours: 1.5 lecture
Prerequisite: Acceptance into the Physical Therapist Assistant Program.
Corequisite: Non.e
Recommendation: None.
This course will introduce the student to concepts and physical therapy principles applied to the aging process, including management of integumentary problems. Emphasis will be placed on pathologies and physical therapy interventions for disabilities in aging, burns, and wounds.
Transfer Credit: CSU

PTA 230
THERAPEUTIC EXERCISE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: PTA 120 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.
Transfer Credit: CSU

PTA 233
PROSTHETICS AND ORTHOTICS FOR ALLIED HEALTH PROFESSIONALS 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
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.
Transfer Credit: CSU

PTA 235
NEUROLOGY 3 UNITS
Class hours: 3 lecture
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.
Transfer Credit: CSU

PTA 236
CLINICAL PRACTICUM II 4 UNITS
Class hours: 221 variable semester lab hours
Prerequisite: PTA 125 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
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.
Transfer Credit: CSU

PTA 240
ACTIVITIES OF DAILY LIVING 2 UNITS
Class hours: 2 lecture
Prerequisite: PTA 230 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
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.
Transfer Credit: CSU

PTA 245
ADVANCED MODALITIES 3 UNITS
Class hours: 2 lecture/3 lab
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.
Transfer Credit: CSU

PTA 246
CLINICAL AFFILIATION 4 UNITS
Class hours: 13 lab
Prerequisite: PTA 235 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
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.
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.)

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.
*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) (CAN PHYS 2)
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.
*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) (CAN PHYS 4)
GENERAL PHYSICS 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
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.
*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) (CAN PHYS SEQ B)
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.
*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 (CAN PHYS 12) (CAN PHYS SEQ B)
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.
*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)(CAN PHYS SEQ B)
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 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.
*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: 1.5 lecture
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.

PMT 2 (Not degree applicable)
INJECTION MOLDING
FUNDAMENTALS 1.5 UNITS
Class hours: 1 lecture/1.5 lab
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 a maximum of 2 times.

PMT 3 (Not degree applicable)
PLASTICS REPAIR 1 UNIT
Class hours: 1 lecture
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.

PMT 4
PLASTICS FABRICATION 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None
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.

PMT 5 (Not degree applicable)
SURVEY OF COMPOSITES 1.5 UNITS
Class hours: 1.5 lecture
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.

PMT 40
EXTRUSION FUNDAMENTALS 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
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 a maximum of 4 times.

PMT 50
SURVEY OF HYDRAULICS AND PNEUMATICS 1.5 UNITS
Class hours: 1.5 lecture/.5 lab
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.

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.

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.

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.

PMT 55
PROTOTYPING 1 UNIT
Class hours; 1 lecture/1 lab
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: 1.5 lecture
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.

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.

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 a maximum of 2 times.

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.

PMT 61
FIBERGLASS TECHNOLOGY 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 a maximum of 2 times.

PMT 62
PLASTIC PACKAGING 2 UNITS
Class hours: 2 lecture
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.

PMT 63L
SPECIALTY PLASTICS LAB 0.5 UNIT
Class hours: 1.5 lab
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 a maximum of 4 times.

PMT 64
PLASTICS PRODUCTION 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
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.

PMT 65
MOLDMAKING 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.

PMT 66
HYDRAULICS AND PNEUMATICS 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: None
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.

PMT 67
FIBERGLASS PRODUCTION 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.

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.

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.

PMT 71
PLASTICS MANUFACTURING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
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.

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.

PMT 75
RESIN TRANSFER MOLDING 1 UNIT
Class hours: 1 lecture/1 lab
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 TECHNOLOGY 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.
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.
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.

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.
*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.
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.
*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.
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.
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.
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.
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.
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.
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.
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.
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, emphasis upon the meaning, limitations, and applicability of statistical procedures. The course will include the theory of parametric and non-parametric statistical methods and its application to psychological data. Topics will include descriptive statistics, probability and sampling distributions, statistical inference and power, linear correlation and regression, chi-square, t-test, and one-way analysis of variance. Application of statistical software to psychological data is required.
*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.
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.
Transfer Credit: CSU; UC

PSYC 245
DRUGS AND BEHAVIOR **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course entails a detailed survey of the various types of psycho-active drugs that are used and misused in our culture, including legal

drugs, such as those used to treat psychiatric disorders, and illegal drugs, including some stimulants, psychedelic, and opiates. The psycho-active properties and the behavioral consequences of drug use and abuse will be the focus. The societal and cultural influences on drug use/misuse, treatment, prevention, history, laws, and ethics will be covered in this course.
Transfer Credit: CSU

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.
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.
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, including behavior resulting from anxiety disorders, mood disorders, substance abuse, sexual disorders, personality disorders, childhood and aging disorders and schizophrenia. The different models of abnormal behavior, its causes, treatment, and prevention, as well as ethics and the law are discussed.
Transfer Credit: CSU; UC

PSYC 272
SPECIAL POPULATIONS **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an overview of special populations with mental illness, including the homeless, transitional age youth, the elderly, veterans, gays, lesbians, bisexuals, transsexuals, individuals with physical disabilities, individuals with substance abuse, and different racial and ethnic groups. Emphasis is placed on the issues that are specific to special populations with mental illness, including living skills, education, self-development, empowerment, leadership, transitional support, and recovery efficacy.
Transfer Credit: CSU

PSYC 273
MENTAL HEALTH WORKER FIELD EXPERIENCE **3 UNITS**
Class hours: 1 lecture/6 lab
Prerequisite: INST 151, INST 152, PSYC 101, PSYC 271 AND PSYC 272 with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
The field experience includes the practice of working with a Rehabilitation Team under the direct supervision of a professional Psychosocial Rehabilitation specialist. Emphasis will be placed on helping relationships, including helping with personal/family issues, employment, living with mental illness, cultural/ethnic issues and any other special population issues. While interacting with clients, students will engage in the four components of rehabilitation: hope, empowerment, self-responsibility, and obtaining a meaningful role in life. The students will develop a professional attitude in all phases of psychosocial rehabilitation, including the legal and ethical aspects of rehabilitation. Weekly seminars are held to evaluate and review clinical applications.
Transfer Credit: CSU

RADIO/TELEVISION

(Fine Arts/Communications)

RTV 151
MOTION PICTURES, RADIO, AND TELEVISION **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: 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. (This course is not open to students currently enrolled in or who have completed TH 151.)
Transfer Credit: CSU

RTV 152
INTRODUCTION TO BROADCASTING **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
As 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, studio procedure, and station staffing as well. Field trips to radio and television stations may be included. (Formerly TH 152)
Transfer Credit: CSU

RTV 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-956, 1700 AM, and WPMD on the Internet. This course may be taken a maximum of 4 times. (Formerly TH 155)
Transfer Credit: CSU

RTV 171
OCCUPATIONAL WORK EXPERIENCE IN BROADCASTING **1 UNIT**
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units in a declared Broadcast Media Major. One unit of Occupational Work Experience in Theatre require 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 experience 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 employer/trainers. In the first semester, students will meet with the instructor for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. This course may be taken a maximum of 4 times. (Formerly TH 171)
Transfer Credit: CSU

READING

(Liberal Arts Division)

READ 6 (Not degree applicable)
TUTOR TRAINING **0.5 UNIT**
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 taken a maximum of 1 time. This course is offered on a credit/no credit basis only.

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.

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.

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.

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.

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.
Transfer Credit: CSU

READ 100A
SPEED READING: METHODS **1.5 UNITS**
Class hours: 3 lecture
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.
Transfer Credit: CSU

READ 100B
SPEED READING: APPLICATIONS **1.5 UNITS**
Class hours: 3 lecture
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.
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.
Transfer Credit: CSU

NON-CREDIT (ADULT EDUCATION) CLASSES

AED 90.7 (Not degree applicable)
SUPERVISED ASSISTANCE FOR TECHNOLOGY BASED COURSES 0 UNIT
Class hours: 3 lab
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces student knowledge of educational technology resources on computers, improves student use of education technology for successful completion of technology-based course assignments, and empowers student confidence in utilizing educational technology. Special attention will be given to skills necessary for success in distance education courses. (Formerly EDT 6T/EDT 7T/READ 5T)

AED 90.41 (Not degree applicable)
SUPERVISED 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 score 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 41T)

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.
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.
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.
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.
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.
Transfer Credit: CSU; UC

SOC 120
INTRODUCTION TO HUMAN SEXUALITY 3 UNITS
Class hours: 3 lecture
Prerequisite: Student must be at least 18 years of age or have parental consent in order to take this course.
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.
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.
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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.
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.
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.
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 a maximum of 4 times..
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.
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.
Transfer Credit: CSU, UC

SPANISH

(Liberal Arts Division)

SPAN 101 **(CAN SPAN 2) (CAN SPAN SEQ A)**
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.
Transfer Credit: CSU; UC*
*UC credit limits may apply. SPAN 101 and SPAN 111 combined: maximum credit, one course.

SPAN 102 **(CAN SPAN 4) (CAN SPAN SEQ A)**
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.
*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.
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.
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.
*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.
*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.
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.
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.
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.
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.
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.
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.
Transfer Credit: CSU; 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.
Transfer Credit: CSU

SPAN 245
INTRODUCTION TO CHICANO/
MEXICAN AMERICAN CULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a study of the culture of the Chicano/Mexican American student. It analyzes the family, religious institutions, contributions, advancements, and problems of

the Chicano/Chicana in the United States and aids students in achieving self-identification and understanding their relationship to their own community. This course, conducted in English, develops insight into the special nature of Chicano/Chicana culture for those outside that culture it is open to all Spanish speaking and non-Spanish speaking students.
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.
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.
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.
Transfer Credit: CSU; UC

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 a maximum of 4 times. The course is to be offered on a credit/no credit basis.

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 a maximum of 4 times. This course is offered on a Credit/No Credit basis.

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, co-workers and the public is stressed.

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, small groups, intercultural communication, interviewing, and speech preparation. This course includes oral presentations, and videotaping is used as an instructional tool.
*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.
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.
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.
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.
*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.
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.
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
Prerequisite: None.
This course entails an examination of principles, practices and procedures in formal deliberation. Emphasis is placed on parliamentary law.
Transfer Credit: CSU

SPCH 165
GROUP PROCEDURE 1 UNIT
Class hours: 2 lecture
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.
Transfer Credit: CSU

SPCH 200
CONTEMPORARY COMMUNICATION TOPICS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 or READ 54 with a grade of Credit or "C" or higher or the equivalent.
This is a specialized course designed to present and acquaint students with communication theories and principles relevant to improving communication effectiveness. It focuses on those issues that reflect the evolutionary nature of communication in a variety of contemporary communication areas. The special topic will be decided by the course instructor and announced in the Schedule of Classes. This course may be taken a maximum of 4 times.
Transfer Credit: CSU;UC credit determined after admission.

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.
Transfer Credit: CSU

SPCH 235 (CAN SPCH 6)
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.
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 taken a maximum of 4 times.
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 taken a maximum of 4 times.
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 taken a maximum of 4 times.
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 a maximum of 4 times.
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.
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.
Transfer Credit: CSU

NON-CREDIT (ADULT EDUCATION) CLASSES

AED 90.32 (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 32)

AED 90.46 (Not degree applicable)
INDIVIDUALIZED SPEECH **0 UNIT**
Class hours: 3 lab
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 46T)

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.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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 a maximum of 3 times.
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 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is 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: .5 lecture/6 lab
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: .5 lecture/6 lab
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.

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.

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.
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.
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.
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.
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 a maximum of 4 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
Transfer Credit: CSU

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 a maximum of 2 times.
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.
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.
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 a maximum of 2 times.
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 a maximum of 2 times.

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.
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 a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 2 times.
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 a maximum of24 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU; UC

TH 145
COSTUME PRODUCTION FOR DANCE 1 UNIT
Class hours: 1 lecture/3 lab
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 a maximum of 4 times.
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 taken a maximum of 4 times.
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 a maximum of 4 times.
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.
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. (This course is not open to students currently enrolled in or who have completed RTV 151)
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.
Transfer Credit: CSU

TH 156
TELEVISION PRODUCTION 2.5 UNITS
Class hours: 1 lecture/5 lab
Prerequisite: None.
This class provides practice in basic television production and video post-production. The focus will be on field video production and digital editing using Final Cut Pro. Students will do exercises, individual and team projects, learn about producing, directing, camera operation, and post-production. Qualified projects will be aired on cable as Cerritos College Campus TV programming. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

TH 159
WORLD FILM 3 UNITS
Class hours: 3 lecture
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.
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 a maximum of 2 times.
Transfer Credit: CSU; UC

TH 193
MOTION PICTURE EDITING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will serve as an introduction to motion picture editing by taking students through the history of editing and analysis specific techniques through in class examples of significant works. Students will apply their knowledge of editing techniques through exercises on non-linear editing tools where they will edit their own versions of scenes from common footage.
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.
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.
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 taken a maximum of 2 times.
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 a maximum of 2 times.
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.
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.
Transfer Credit: CSU; UC

TH 241
SCREENWRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: 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 a maximum of 2 times. (Formerly TH 258)
Transfer Credit: CSU

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.
Transfer Credit: CSU

TUTORIALS

PLEASE SEE NON-CREDIT (ADULT EDUCATION) CLASSES ON PAGE 317

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 14 times.

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.

WELD 51L
ADVANCED ARC WELDING SPECIALTY LAB 1 UNIT
Class hours: 3 lab
Prerequisite: WELD 120 or equivalent with a grade of Credit or "C" or higher, or concurrent enrollment.
Corequisite: WELD 210L or prior completion with a grade of Credit or "C" or higher.
Recommendation: None.
This advanced level welding course is designed to further develop advanced specialized welding skills in the structural, piping, sheet metal, and construction industries. This course may be taken a maximum of 4 times.

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
Recommendation: 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.

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.

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), vertical fixed (2G), and 45 degree inclined (6G) positions using the shielded metal arc (SMAW) and gas metal arc (GMAW) welding procedures. This course may be taken a maximum of 4 times.

WELD 55
MAINTENANCE WELDING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WELD 100 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.

WELD 100
WELDING FUNDAMENTALS 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
This introductory course is designed to familiarize the student with the principles and practices of the welding industry. 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 heat on metals.
Transfer Credit: CSU

WELD 120
BEGINNING ARC WELDING 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: None.
Recommendation: WELD 100 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), and flux cored arc welding (FCAW) processes. Welding may be done in all positions on carbon steels. Emphasis is also placed on the safe operation of manual and semi-automatic oxyacetylene flame cutting equipment.
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.
Transfer Credit: CSU

WELD 170
STRUCTURAL FABRICATION 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WELD 100 or WELD 120 or WELD 130 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. This course may be taken a maximum of 2 times.
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), and flux cored arc (FCAW) welding processes. Related classroom instruction is given in the technical data pertaining to these processes.
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 a maximum of 3 times.
Transfer Credit: CSU

WELD 220
CERTIFICATION AND LICENSING FOR WELDERS 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: WELD 200 or equivalent with grade of Credit or "C" or higher, or concurrent enrollment, or appropriate work experience.
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.
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 a maximum of 2 times.
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 a maximum of 2 times.
Transfer Credit: CSU

WELD 270
STRUCTURAL FABRICATION 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: WELD 53 or WELD 170 or equivalent with a grade of Credit or "C" or higher
Corequisite: None.
Recommendation: WELD 39 and WELD 50 or equivalent with grades of Credit or "C" or higher.
This advanced course is designed to further develop layout skills on structural plate, beams, channel, and angle iron. The student will work from prints utilizing measuring tools and fabrication equipment to develop weldments typical in the industry.
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

WS 204
WOMEN IN AMERICAN HISTORY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of an American history survey course, the Reading Placement Process or READ 54, and the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This lecture/discussion course will survey women's history in the United States from colonial times to present. It will focus on defining the similarities and differences in historical experiences of women based on their social class, race, and ethnicity. Topics of concentration include the changing roles of women in the private and public spheres; an analysis of the agendas, strategies, and consequences of the women's movements; and the historical evolution of the definitions of feminism and social construction of gender. This course is not open to students who are enrolled in or have received credit in HIST 204.
Transfer Credit: CSU;UC

WS 205
THE ANTHROPOLOGY OF SEXUALITY AND GENDER **3 UNITS**
Class hours: 3 lecture
Prerequisite: Student must be at least 18 years of age or have parental consent in order to take this course.
Corequisite: None.
Recommendation: Satisfactory completion of 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 examines the cultural connection of human sexuality and gender in an anthropological framework. Biological and cultural bases for the multiple expressions of sexuality and gender found around the world and presented. Case studies include food foraging, horticultural, agricultural, industrial, and post-industrial societies. A central concern is the interaction between subsistence practices, cultural economics, and status in the in the construction of "normal" and "abnormal" sexualities and genders. This course is not open to students who are enrolled in ANTH 205 or have received credit in ANTH 205.
Transfer Credit: CSU

WS 206
WOMEN IN THE GLOBAL ECONOMY **3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 100.
This course is an introduction to the global economy from the perspectives of women in the Third World. 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 economic development such as the World Bank and International Monetary Fund (IMF) on the lives of women in the developing countries and the surrounding ecological environment. This course is not open to students who have received credit in ECON 102.
Transfer Credit: CSU;UC

WOODWORKING MANUFACTURING TECHNOLOGIES

(Technology Division)

WMT 1 (Not degree applicable)
OPEN ENTRY/EXIT WOODWORKING **0.5 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 students' 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.

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 experi-

ence 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 Manufaturing 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 4 times.

WMT 101
INTRODUCTION TO WOODWORKING **3 UNITS**
Class hours: 2.5 lecture/2 lab
Prerequisite: None.
This introductory woodworking course acquaints the student 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.
Transfer Credit: CSU

WMT 102
INTRODUCTION TO SOLID WOOD CASEGOODS **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 intermediate course increases the student's skill in the use of hand tools, portable power tools, and machinery. Topics include project planning and implementation, wood technology, and hand and machine joinery as it pertains to solid wood construction in free-standing furniture casework. Emphasis is placed on proper technique, safety, and shop policies for the woodworking facility. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 103
INTRODUCTION TO TABLES **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 intermediate course increases the student's skill in the use of hand tools, portable power tools, and machinery. Topics include project planning and implementation, wood technology, and hand and machine joinery as it pertains to table construction. Emphasis is placed on proper techniques, safety, and shop policies for the woodworking facility. This course may be taken a maximum of 2 times.
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 a maximum of 2 times.
Transfer Credit: CSU

WMT 108
WOOD CARVING FOR FURNITURE **2.5 UNITS**
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to the fundamentals of wood carving relative to wood furniture. Topics include chip carving, letter carving, shallow relief carving, and carving the Newport Shell. Emphasis is placed on the selection and safe use of tools, carving techniques, choice of wood, and wood finishes. This course may be taken a maximum of 2 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 117
WOODWORKING AND ARCHITECTURAL ENVIRONMENTS **2 UNITS**
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course explores the cultural and historical woodworking and architectural environments of the Los Angeles region and beyond. Tours of lumberyards, lumber mills, woodworking shops, manufacturing plants, private homes, museums, design showrooms, and other facilities will be held. This course may be taken a maximum of 3 times.
Transfer Credit: CSU

WMT 118
INTRODUCTION TO WOODTURNING **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 a maximum of 2 times.
Transfer Credit: CSU

WMT 119L
INTRODUCTION TO WOODTURNING LAB **1 UNIT**
Class hours: 4 lab
Prerequisite: WMT 118 or equivalent with a grade of Credit or "C" or higher.
Corequisiste: None.
Recommendation: None.
This laboratory course provides students who have completed WMT 118 the opportunity to improve and refine their woodturning skills in order to prepare them for advanced woodturning courses. This course may be taken for a maximum of 4 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 144
JIGS AND FIXTURES 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WMT 101 or WMT 151 or WMT 153 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course introduces students to jigs and fixtures associated with various machinery and processes in the woodworking lab. Topics include machinery tune-up, jig and fixture design, measurement, materials, hardware, construction techniques, dust collection, and safety. This course may be taken a maximum of 2 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 151
INTRODUCTION TO FACEFRAME
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 to traditional faceframe cabinetry. Classroom topics will include the history, design, fabrication, and safe use of woodworking machinery and materials involved in cabinet construction. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

WMT 153
32MM SYSTEM OF
CABINETMAKING 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: None.
Corequisite: None.
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. This class may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 154
INTRODUCTION TO
CABINET INSTALLATION 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: WMT 151 or WMT 153 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, fasteners, hardware and tools used to install residential, commercial and institutional cabinets. Classroom topics include reading of blueprints, layout, leveling, scribing, milling, fitting and fastening cabinets into place. A major emphasis will be on the safe use of tools and materials involved in cabinet installation. This course may be taken a maximum of 2 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 157
PASSAGE DOOR 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 102 or WMT 103 or WMT 151 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: WMT 155.
This course introduces the student to the methods, materials, tools, and machinery used in the design, manufacturing, and installation of passage doors. Classroom topics include the history, design, milling, assembly, and installation of doors. A major emphasis will be on the safe use of woodworking machinery and materials involved in door millwork. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 159
SOLID SURFACE FABRICATION 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: WMT 101 or WMT 151.
This course introduces the student to the methods, materials, tools, and machinery used in the design, manufacturing, and installation of solid surface countertops, as well as the safe use of specialized machinery and materials involved in solid surface countertops, as well as the safe use of specialized machinery and materials involved in solid surface fabrication. This course will prepare students for solid surface fabrication industry certification/ qualification. This course may be taken a maximum of 2 times.
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 a maximum of 2 times.
Transfer Credit: CSU

WMT 181
INTRODUCTION TO COMPUTER OPERATIONS FOR CABINETMAKING AND DESIGN 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the CabinetWare® computer aided cabinet design and manufacturing program. Topics include utilization of the software to design and manufacture cabinets, details of design standards, variables, and parameters, as well as industry drawings, contract, proposals, materials, and cut lists. This course may be taken a maximum of 2 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 202
ADVANCED SOLID WOOD CABINETRY 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 102, WMT 103 and WMT 201 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This advanced course covers the design and building of museum quality solid wood cabinets. Topics include the aesthetics of design, making scale mockups, selection of grain and color to complement the design, and advanced joinery techniques. Coopering, bent laminating, and basic veneering are also covered. Emphasis is placed on the highest degree of workmanship and design. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 203
WOOD VENEERING 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 102 or WMT 103 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 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 a maximum of 2 times.
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 a maximum of 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 218
POLYCHROMATIC AND CLOSED FORM TURNING 3 UNITS
Class hours: 1.5 lecture/4.5 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 students' skills. Topics include polychromatic bowl construction, closed form vessel turning and other advanced skills. This course may be taken a total of 2 times.
Transfer Credit: CSU

WMT 219L
WOODTURNING LAB 1 UNITS
Class hours: 4 lab
Prerequisite: WMT 101 and WMT 118 and WMT 218 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 woodturing projects of their choice that are relevant to the subject matter being taught during the same time period. This course may be taken a maximum of 6 times.
Transfer Credit: CSU

WMT 228L
PROJECT COMPLETION LAB 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WMT 102 or WMT 103 or WMT 151 or WMT 153 or equivalent with a grade 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 a maximum of 4 times.
Transfer Credit: CSU

WMT 229L
COMPREHENSIVE WOODWORKING MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 102 or WMT 103 or WMT 151 or WMT 153 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 a maximum of 4 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 235
WINDSOR CHAIR 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: WMT 118 and WMT 201 or equivalent with a grade of Credit or "C" of higher, or appropriate work experience
Corequisite: None
Recommendation: None
This course will introduce the student to the materials, methods, and tools used to make and manufacture a reproduction of an eighteenth-century Windsor chair. Topics include layout, turning, bending, and shaping the various chair components, final assembly, and finishing of the chair. Emphasis is placed on the safe use of tools and materials used in the chair construction. This course may be taken a maximum of 2 times.
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 a maximum of 2 times.
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 a maximum of 4 times.
Transfer Credit: CSU

WMT 248
PRODUCTION FURNITURE MAKING AND MANUFACTURING 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: WMT 102 and WMT 103 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course enables students to work as a team in the manufacturing of a limited edition of student-designed furniture items. The course includes all the steps from setting up a furniture plant to building a finished furniture product. This course may be taken a maximum of 3 times.
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 relevant to the subject matter being taught during the same time period. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

WMT 250
INTERMEDIATE FACEFRAME CABINETMAKING 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 and WMT 181 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
In this course the student will review and learn additional methods, materials, tools, and machinery used in the design, manufacturing, and installation of face frame cabinetry. Classroom topics include the history, design, milling, assembly, and installation of face frame cabinetry. Students will work in teams to design, fabricate and install a complete set of kitchen cabinets. A major emphasis will be on production techniques and the safe use of woodworking machinery and materials involved in cabinetmaking and millwork. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

WMT 251
ADVANCED FACEFRAME CABINETMAKING 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 250 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course provides the student the opportunity to improve faceframe cabinetmaking skills

by the use of tool and machinery specific to advanced faceframe cabinetmaking and millwork. Topics include inset door fabrication, coopered door construction, linen fold and other special panel detailing as well as applied mouldings, appliqués and carvings. Students will fabricate a series of project samples for use in future advanced cabinetmaking projects. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

WMT 252
INTERMEDIATE 32MM SYSTEM CABINETMAKING 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 153 and WMT 181 or equivalent with grades of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: WMT 281.
In this course the student will review and learn additional methods, materials, tools, and machinery used in the design, manufacturing, and installation of European 32MM system cabinetry. Classroom topics include the history, design, milling, assembly, and installation of European 32MM system cabinetry. Students will work in teams to design, fabricate and install a complete set of European cabinets. A major emphasis will be on production techniques and the safe use of computerized numerical control panel processing machinery. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

WMT 253
ADVANCED 32MM SYSTEM OF CABINETMAKING 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 252 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course provides the student the opportunity to improve European 32MM system cabinetmaking skills by the use of tools and machinery specific to advanced 32MM system cabinetmaking and millwork. Topics include advanced boring patterns, inset door installation, coopered and radius door applications, and other special trim and filler detailing as well as applied mouldings, appliqués and carvings. Students will fabricate a series of project samples for use with future advanced 32MM system cabinetmaking projects. This course may be taken a maximum of 4 times.
Transfer Credit: CSU

WMT 258
MANTELS AND WALL SYSTEMS 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 102, WMT 103, or 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, and manufacturing and installation of mantels and wall systems. Topics will include the history, design, milling, and assembly and installation of mantels and wall paneling. A major emphasis will be focused on the safe use of woodworking machinery and materials involved in architectural millwork. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 259L
SOLID SURFACE MANUFACTURING SPECIALTY LAB 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 159 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 solid surface fabrication 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 a maximum of 4 times.
Transfer Credit: CSU

WMT 268A
PRODUCTION CABINETMAKING (COMMERCIAL/INSTITUTIONAL) 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: WMT 151 or WMT 153 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: WMT 250 or WMT 252.
Recommendation: WMT 154, WMT 155, WMT 181.
This course enables the students to work as a team in the design, manufacturing, and installation of cabinets and fixtures for on-campus use. This course includes instruction in production techniques, materials science, cost estimating, time management, and scheduling. This course specializes in the fabrication and installation of cabinetry and fixtures in the category of institutional or commercial production. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 268B
PRODUCTION CABINETMAKING AND MANUFACTURING (RESIDENTIAL) 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: WMT 151 or WMT 153 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: WMT 250 or WMT 252.
Recommendation: WMT 154, WMT 155, WMT 181.
This course specializes in the fabrication and installation of residential cabinetry and millwork. Topics include panel selection, wood choice, product adaptability and residential construction applications. Students will also receive instruction in production techniques, materials science, cost estimating, time management and scheduling. This course enables students to work as a team in the design, manufacturing, and installation of cabinets and fixtures for on-campus use. This course may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 268C
PRODUCTION CABINETMAKING AND MANUFACTURING (MASS PRODUCTION) 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: WMT 151 or WMT 153 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: WMT 250 or WMT 252.
Recommendation: WMT 154, WMT 155, WMT 181.
This course specializes in the fabrication and installation of mass production cabinetry, furniture products and millwork. Topics include material selection, product options, ergonomics, functionality and mass production construction applications. Students will also receive instruction in mass production systems, materials science, cost analysis, estimating, time management and building to industry standards. This course enables students to work as team in the design, manufacturing and installation of mass production cabinetry and fixtures for on-campus use. This class may be taken a maximum of 2 times.
Transfer Credit: CSU

WMT 269L
CABINETMAKING MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 151 or WMT 153 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 a maximum of 4 times.
Transfer Credit: CSU

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 a maximum of 2 times.
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.
Transfer Credit: CSU; UC

NON CREDIT (ADULT EDUCATION) CLASSES

LIBERAL ARTS

ENGLISH AS A SECOND LANGUAGE

AED 90.36 (NOT DEGREE APPLICABLE)

SUPERVISED 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. (Formerly ESL 36T)

READING

AED 90.41 (Not degree applicable)
SUPERVISED 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 41T)

AED 90.7 (Not degree applicable)
SUPERVISED ASSISTANCE FOR TECHNOLOGY BASED COURSES 0 UNIT
Class hours: 3 lab
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces student knowledge of educational technology resources on computers, improves student use of education technology for successful completion of technology-based course assignments, and empowers student confidence in utilizing educational technology. Special attention will be given to skills necessary for success in distance education courses. Formerly EDT 6T/ EDT 7T/READ 5T)

SPEECH

AED 90.32 (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 32)

AED 90.46 (Not degree applicable)
INDIVIDUALIZED SPEECH 0 UNIT
Class hours: 3 lab
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 46T)

SCIENCE/ENGINEERING/MATH

BIOLOGY & CHEMISTRY

AED 90.1 (Not degree applicable)
SUPERVISED SCIENCE TUTORIAL 0 UNIT
Class hours: 2 lab
Open entry/open exit
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 BIOL 9T, CHEM 9T)

COMPUTER AND INFORMATION SCIENCE

AED 90.3 (Not degree applicable)
SUPERVISED COMPUTER UTILIZATION TUTORIAL 0 UNIT
Class hours: 2 hrs. arr.
Prerequisite: None.
Corequisite: Enrollment in any CIS courses.
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 CIS courses in which the students are enrolled. (Formerly CIS 2L/CIS 3L)

MATHEMATICS

AED 90.91 (Not degree applicable)
SUPERVISED 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 9T)

HEALTH OCCUPATIONS

NURSING

AED 90.47 (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 47T)

TECHNOLOGY TRAINING & DISTANCE EDUCATION

EDUCATIONAL TECHNOLOGY

AED 90.7 (Not degree applicable)
SUPERVISED ASSISTANCE FOR TECHNOLOGY BASED COURSES 0 UNIT

Class hours: 3 lab
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces student knowledge of educational technology resources on computers, improves student use of education technology for successful completion of technology-based course assignments, and empowers student confidence in utilizing educational technology. Special attention will be given to skills necessary for success in distanced education courses. (Formerly EDT 6T/EDT 7T/READ 5T)

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

ABBRUZZESE, MARK (2005)
Instructor
Anthropology
B.A., California State University, Fullerton
M.A., State University of New York, Binghamton

ABING, JOSEPH (2003)
Instructor
Physical Education/Athletics
B.A., University of California, Los Angeles
M.A., Azusa Pacific University

ACKLAND, DEAN (1987)
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)
Assistant Professor
Educational Technology
B.A., California State University, Long Beach
J.D., Western State University

ALVAREZ, LYDIA (2000)
Assistant Professor
English
B.A., Pomona College
M.A., California Polytechnic State University, Pomona

ANAYA, JOSE (2002)
Director of Economic Development
B.S., California State Polytechnic University, Pomona
M.B.A., University of Southern California

ARAGON, RICHARD (1994)
Associate Professor
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)
Associate 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)
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Electronics
B.A., California State University, Los Angeles

BALMAGES, MARY (1992)
Professor
Court Reporting
A.A., Fullerton Junior College
A.B.., University of California, Berkeley
M.A., Chapman University

BARCELO, MARVELINA (2004)
Counselor/Instructor
Counseling
M.S., University of LaVerne

BARON, TONY (1986)
Instructor
Automotive Technology
A.A., A.S., Pierce College
B.A., California State University, Los Angeles

BARRETT, BONNIE R. (1998)
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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
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BEALE, DARRYL K. (1973)
Professor
Psychology
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Child Development
B.A., California State University, Long Beach
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Reading
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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
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BERRY, PATRICIA A. (1978)
Professor
English as a Second Language
A.A., Santa Ana College
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BETANCOURT, DAVID (1999)
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B.A., Berklee College of Music
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BOARDMAN, CONSTANCE (1991)
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Real Estate
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Child Development
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Web Administrator
B.J., B.F.A., University of Texas
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BRADBURY, JEFFERY (1999)
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Chemistry
B.S., Biola University
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B.A., University of California, Los Angeles
M.A., California State University, Dominguez Hills

BUDARIN, DMITRI (2003)
Instructor
Mathematics
B.S., M.S., Moscow State University

BUENO, NI (2005)
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Fitness
B.S., University of South Florida
M.S., United States Sports Academy
EDD., Pepperdine University

BURNS, MARLA (1990)
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English
A.A., Saddleback College
B.A., California State University, San Jose
M.A., California State University, San Francisco

BUSCHAUER, ROBERT (1989)
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Physics
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Math
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M.A., San Bernardino

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Spanish
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Health, Physical Education/Athletics
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M.Ed., Azusa Pacific University

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CAMERON, RICHARD D. (1997)
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Journalism
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Theatre Arts
B.F.A., School of Visual Arts
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CARNEY, DANIELLE (2000)
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English
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Mathematics
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CARROLL, DANI (2002)
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Dental Hygiene
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CASAS, RALPH P. (1995)
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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)
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Mathematics
B.A., University of Waterloo
M.A., Ph.D., University of California, Berkeley

CHAMRAS, SEVADA (2002)
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Chemistry
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CHAVEZ, ERLINDA (1989)
Professor
Cosmetology
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CHESTER, ROBERT (1987)
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CHOMIAK, RENEE D. (2001)
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A.A., Lincoln Land College
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CLARKE, MARY (1980)
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Mathematics
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CLEMANS, SUSANNA (1986)
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English
A.A., Orange Coast College
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CLIFFORD, STEPHEN (2003)
Associate Professor
English
B.A., Assumption College
M.A., Marquette University
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CODD, GERALDINE A. (1997)
Assistant Professor
Reading
B.A., Rider College
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CONLEY, ANGELA (2004)
Assistant Professor
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CONNAL, JANICE S. (1988)
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CONVEY, CYNTHIA (1996)
Manager of Employment Services/Faculty & Staff Diversity Officer
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COOKE, MELODIE (2004)
Instructor
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CORDOVA, ERNESTO (2002)
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COULTER, LUCIA (1987)
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COVILL, MATHEW (2005)
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CRAWFORD, SUZANNE (2004)
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CROSS, KATHLEEN (1990)
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M.A., Loyola Marymount University

DE FRANCE, FRANCINE L. (1976)
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Professor
B.A., M.Ed., Temple University
M.A., California State University, Long Beach

DEMICHELE, ANNA (2004)
Instructor
Music
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DEMIAN, KAMAL A. (1997)
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B.S., Ain Shams University, Cairo, Egypt
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DUFF, KIMBERLEY, (1999)
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Psychology
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DUVA, MARK (2004)
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EGAN, ISABELLE (1989)
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Business Computerized Office Technologies
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ERNEST, ROGER (2000)
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FABISH, DAVID M. (1994)
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FALCON, DENNIS P. (1997)
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Political Science
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FARINA, MICHAEL J. (1989)
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Accounting
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B.A., California State University, Fullerton
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FARMER JR, WILLIAM (2005)
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B.A., Georgetown College, Kentucky
M.A., Bradley University, Illinois

FELDSTEIN, THERESE (1988)
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FERNANDEZ, CHRISTINA (2001)
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Photography
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FERNANDEZ, WALTER I. (1995)
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History
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FINKELSTEIN, HY L. (1975)
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Management
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FLORESCU, MIHAELA (2001)
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FOBI, CHARLENE (1988)
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Nursing Education
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M.N., University of California, Los Angeles
Ed.D., Pepperdine University

FOLLETT, KAY S. (1981)
Professor
Disabled Student Programs & Services
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M.A., California State University, Los Angeles
Ph.D., University of Southern California

FORTNER, ANTHONY (1999)
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Woodworking Manufacturing Technologies
B.A., California State University, Long Beach

FRANKLIN, LAURA (2002)
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M.A., University of California, Los Angeles

FRONKE, MARK J. (1992)
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FUJIMOTO, NORMAN Y. (1994)
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B.A., Loma Linda University
M.A.T., Andrews University

FUSCHETTO, SUSAN (2000)
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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

GALE, CHARLES E. (2000)
Coordinator of Student Health Services
A.A., Cerritos College
B.S., M.S., California State University, Long Beach

GAIK, FRANK (1989)
Professor
English
B.S., McNeese State University
M.F.A., University of Arkansas
Ph.D., University of Southern California

GAYLORD, KENNETH (1990)
Instructor
Physical Education/Athletics
B.A., California State University, Long Beach
M.A., Azusa Pacific

GEORGE, PATTY (1999)
Professor
Mathematics
B.A., M.A., M.S., University of California, Riverside

GERSITZ, LORRAINE (2000)
Librarian/Instructor
B.A., M.L.S., Rutgers University

GLECKNER, CARRIE E. (1997)
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Health, Fitness/Wellness
B.A., New York University
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GONZALES, JOANA (2002)
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English
B.A., M.A., University of California, Irvine

GRADIN, SUSAN (1999)
Instructor
Child Development
B.A., University of California, Santa Barbara
M.S., Pepperdine University

GROSFELD, STEPHEN (2004)
Instructor
Athletics
A.A., Cerritos College
B.S., Utah State
M.S., Azusa Pacific University

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
Ph.D., Alliant International University

HAAS, JOHN H. (1998)
Instructor
History
B.A., California State University, Los Angeles
Ph.D., Claremont Graduate School

HALLINGER, DONALD (2001)
Assistant Professor
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
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HANSON, KENNETH J. (1985)
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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 (1975)
Associate Professor
English
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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

HECKERMAN, EDWARD (2004)
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Photography
B.A., Sonoma State University
M.F.A., California Institute of Arts

HELBERG, BONNIE (1988)
Assistant Professor
Reading
B.A., M.A., California State University, Long Beach

HENRIQUES, JAMES (1988)
Professor
Physics
B.S., M.S., Georgia State University

HENRY, FRED (1986)
Assistant Professor
Welding
Community College Ltd Service Credential, UCLA

HIGDON, JOANN (2005)
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Assistant Superintendent
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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

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Assistant Professor
Theatre Arts
B.A., B.F.A., University of Hawaii, Manoa
M.F.A., University of California, Los Angeles

HO, JENNEY (2003)
Directory of Purchasing
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HOHLY, MARGARET (1984)
Professor
Computer and Information Sciences
B.S., M.S., California State University, Long Beach
M.S., California State University, Fullerton

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Assistant Professor
Disabled Student Programs and Services
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HOLZGANG, AMY (2001)
Instructor
Sociology
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Speech Communication
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HORVATH, ELLEN (1989)
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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)
Assistant Professor
Speech Communication
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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

HUGHES, CAROL (2005)
Instructor
Nursing
A.S., Long Beach City College
B.S., California State University, Fullerton
M.S., California State University, Long Beach

HUNT, MARY (2004)
Central Intake and Service Specialist/
Instructor
DSPS
B.F.A., Otis Art Institute
M.A., Philips Graduate Institute

JAIME, JENNIE (2000)
Assistant Professor
Spanish
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JANOSOVA, ANITA M. (1992)
Associate Professor
Art and Design
B.F.A, M.F.A., School of Art Institute, Chicago

JARRETT, GEORGE (2004)
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History
B.A., University of California, Santa Cruz
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JENSEN, DEBORAH C. (1995)
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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

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A.S., Long Beach City College
B.V.E., California State University, Long Beach

JOHNSON, JEANNE EVA (1973)
Professor
Cosmetology
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Vice President of Student Services/Assistant Superintendent
B.A., University of California, Berkeley
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Ed.D., University of California, Los Angeles

JOHNSON, WAYNE (1989)
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B.S., M.A., California State University, Long Beach

JONES, MICHAEL (2004)
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Woodworking
B.A., University of California, Irvine

JONES, SHAWN (2005)
Accounting Manager
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JORDAN, WESLEY (1991)
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Mathematics
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JUNTILLA, TIMOTHY J. (1997)
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English
B.A., California Lutheran University
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(1964-1991)
French

ALLEN, ROBERT
(1965-1991)
Business-Accounting

ANDERSON, LOWELL
(1962-2003)
Real Estate

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

BOYLE, JOHN
(1974-2006)
Biology

BRADY, LAWRENCE
(1970-1999)
Instructional Dean,
Fine Arts and Communications

BRADY, MELVIN
(1963-1991)
Business

BROADBENT, LINDSEY
(1966-79)
Technical Mathematics

BRODERICK, WILLIAM E.
(1976-2003)
Reading

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, BARBARA
(1972-1985)
Nursing

CARLSON, LELAND
(1965-1967)
Mathematics

CARLSON, NORMAN
(1982-1991)
Drafting

CARSON, CHARLOTTE
(1963-1985)
Nursing

CASKEY, WILLIAM
(1961-1989)
Accounting

CATES, CARROLL
(1959-1988)
Physical Education

CHADWICK, RALPH G.
(1962-1980)
Associate Dean, Technology

CHOWEN, JUDITH
(1981-2006)
Accounting

COLE, JOSEPH C.
(1960-1973)
Psychology

CONOVER, SANDY
(1991-2002)
Nursing Education

COOK, EDWARD P.
(1965-1981)
Welding

COPPENGER, MICHAEL
(1980-2004)
Photography

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

DURAN, AGNES H
(1987-2004)
Reading

ELIAS, ABUNDIO
(1969-1992)
Spanish

ENQUIST, MARVIN
(1990-2005)
Administration of Justice

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

GURRERA, BEN
(1976-1985)
Accounting

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

HUGHLETT, ROBERT
(1973-2005)
Director, Disabled Student Program & Services

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, HPE/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

KROGUE, R. KENT
(1972-2005)
Biology

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

MADDEN, JOHN
(1998-2006)
Philosophy

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

MOSER, BERNICE
(1988-2003)
Nursing Education

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

PERKINS, SHERRY
(1979-2006)
Court Reporting

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

PRATT, JOAN
(1981-2005)
Nursing Education

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

SPETRINO, ALBERT
(1973-2005)
Disabled Student Programs and Services

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

SWIFT, ELIZABETH
(1987-2004)
Mathematics

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

WILLETTE, CHARLES
(1964-1985)
Business Administration

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

WRIGHT, FRANK
(1965-2005)
Mathematics/Computer Sciences

YEE, FRANKLIN
(1976-2003)
Ornamental Horticulture

YSAIS, REY
(1965-2003)
Mathematics

ZIVE, INA
(1972-2002)
Dental Hygiene

ACADEMIC AFFAIRS
BOYOL, MARIA
CASTRO, MONICA
CHAMBERS, PAMELA
EVANS, LEE
GALLANT, JOHN
KRISTINAT, LAURIE
O'DONNELL, DOROTHY
MITCHELL, KATERINE
A.A., Santa Fe Community College, Florida
B.A., California State University, Fullerton
NGUYEN, AMY
B.A., University of California, San Diego
M.A., Biola University

ADMISSIONS AND RECORDS
ALEGRE, ROSE
BADZEY, PAUL
A.A., Cerritos College
BERNABE, DELFINA
BOSS, DAVID
BOSS, SUE
A.A., Cerritos College
CAMPBELL, CHRISTINA
A.A., Cerritos College
CARY, JOAN
A.A., Cerritos College
EAR, JOEY
A.A., Cerritos College
A.A., Long Beach City College
GUTIERREZ, VERONICA
LADMIRAULT, BARBARA
MEJIA, NATASHA
OTERO, KATHLEEN
PENESA, ROSMARY
PENDLETON, BENJAMIN
TOLSON, MIRIAM
TORRES, THERESA
VALLES, LISHA

BUSINESS EDUCATION
COOPER, JOHNNY
A.A., Cerritos College
B.S., M.A., Azusa Pacific University
ENGLAND, MICKI
MATTISON, EVELYN
SENF, JOYLYNN

BUSINESS SERVICES
KAUFMAN, LINDA

CAMPUS POLICE
ALBANO, RANDY
BARRON, JAIRZINHIO
BRUSH, TOM
BUKOWIECKI, RICHARD
BUSTAMENTE, RICARDO
CASTILLO, ANGEL
CHAVEZ, MARIO
ECHEVARRIA, JOHN
GARZA, ALEXIS
JAMISON, CARY
KOMADINA, DEBRA
O'ROURKE, CHARLOTTE
RAMIREZ, TERRI
REYES, RENATO
RIOS JR., SANTIAGO
RODRIGUEZ, ESTER
SARABIA, DOMINIC
VELAZQUEZ, CARLO

CAREER SERVICES
ALVAREZ, REGINA
MOTA, MARIA LUISA
RODRIGUEZ, MARINA
THE, CHRISTINA
A.A., Cerritos College
B.A., California State University, Fullerton
M.B.A., California State University, Dominguez Hills
VASQUEZ, ROSARIO

CHILD DEVELOPMENT CENTER
FEIST, ASTRID
GONZALEZ, DEBRA
HARMON, JEANNE
KRAUSE, JUDITH
MARTUCCIO, LETICIA

COMMUNICATION CENTER
GARCIA, CARMEN
PESANTI, SHELLEY

COMMUNITY, INDUSTRY & TECHNOLOGY EDUCATION
CURRY, VICKY
ELIAS, VERONICA
GOMEZ, CHRISTINE
GREER, SALLY
GRIJALVA, TONI
HEAPY, SUZANNE
HOGUE, KATHY
ISAI, LINDA
KLINE, GAYLE
A.A., Cerritos College
LO, CINDY
LOPEZ, IRLANDA
MARTINEZ, DARYABETH
NISHIMURA, LESLIE
A.A., Kapiolani Community College
B.S., California State University, Long Beach
PACE, CARON
PREECE, ROBIN
VALENZUELA ACOSTA, SYLVIA

COUNSELING
APPLEBURY, KIMBERLY
BELLO, FRANCESCA
RODRIGUEZ, MONIQUE
TOWHID, KRISTEN

DISABLED STUDENT PROGRAMS
AGUILAR, ISABEL
BOYCE, KAREN
BULANEK, JUDITH
A.A., Cerritos College
D'ETTORRE, MARY
GREENE, GERALDINE
TAYLOR, MARCIA
THOMPSON, ROBIN
A.A., Cerritos College
VALDIVIA, DAISY

E.O.P.S. OFFICE
AGUAYO, ROBERTO
AREVALO, SYVLIA
CHANEY, MARCIA

FACILITIES
AINSWORTH, JIMMIE
AVILA, ARCADIO
BALCAZAR, MARIA
BELL, LESLIE
BORGES, JOSE
BORN, KENNETH
BUNTON, RONALD
BUTLER, KEVEN
CASTILLO, ESTELA
CHAVEZ, GILBERT
CHILDRESS, VICTOR
CONTRERAS, ROBERT
CRUZ, CLAUDIA
FLORES, DANIEL
GARCIA, JESUS
GOIS, PHILIP
GOMEZ, CAMERINA
GONZALES, ARMANDO
GRIFFIN, CHARLES
GROSHONG, RICKY
GROVER, PATRICK
GUTIERREZ, LOUIS
HARKINS, DONALD
HOWARD, WALTER
HUNT, JOE
JONES, ELMER
KELLETT, MICHAEL
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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