## CATALOG 2009-2010

## VOLUME XCVI <br> (Based on Years in Operation)

## Fullerton College North Orange County Community College District <br> 321 East Chapman Avenue <br> Fullerton, California 92832-2095 <br> (714) 992-7000 <br> Telecommunication Device for the Deaf <br> (714) 871-9192

# www.fullcoll.edu 

## PRICE \$8 Per Copy

(\$10 Mailed)

[^0]
## Table of Contents (for an alpha listing of this section, see back of Catalog)

About Fullerton College ..... 11
Academic Calendar ..... 6
Academic History ..... 33
Academic Honors ..... 25
ACADEMIC INFORMATION ..... 25
Academic Renewal Policy .....  33
ACADEMIC REQUIREMENTS ..... 59
Academic Support Center ..... 43
Acceptance of Transfer Credits ..... 25
Accommodations for Students w/Disabilities ..... 15
Accounting Courses ..... 160
Adding or Dropping a Class ..... 25
Administration of Justice Courses ..... 161
Administration, Fullerton College .....  7
Admission Requirements ..... 15
ADMISSIONS AND RECORDS ..... 15
Admissions and Records .....  43
Advanced Placement ..... 15
Advisory ..... 159
Anatomy and Physiology Courses ..... 165
Anthropology Courses ..... 166
Arabic Courses ..... 167
Architecture Courses ..... 167
Art Computer Graphics Courses ..... 168
Art Courses ..... 170
Assessment/Orientation Center ..... 43
Associate Degree Gen Ed Requirement ..... 60
Associated Students - Benefits ..... 54
Associated Students Legal Clinic ..... 53
Associated Students Validation ..... 53
Associated Students ..... 53
Athletics ..... 54
ATM ..... 16
Attendance ..... 25
Audit Policy ..... 26
Automotive Technology Courses ..... 175
Biology Courses ..... 177
Bookstore ..... 43
Bursar's Office ..... 16
Business Courses ..... 179
Cadena Cultural Center ..... 44
CalWORKs ..... 44
Campus Dining ..... 44
CAMPUS MAP .Inside Back Cover
CARE ..... 45
Career and Life Planning Center ..... 45
Catalog Rights ..... 59
Chemistry Courses ..... 182
Child Development \& Ed Studies Courses ..... 184
Child Development Center/Lab School ..... 45
Children on Campus ..... 34
Chinese Courses ..... 188
Cinema-Radio-TV Courses ..... 188
Classification of Students ..... 26
College Location ..... 11
COLLEGE POLICIES AND RULES ..... 33
Computer Information - Gaming Courses ..... 197
Computer Information Systems Courses ..... 191
Computer Science Courses ..... 198
Construction Courses ..... 198
Continuing Education ..... 11
Corequisites ..... 159
Corrections to Student Information ..... 16
Cosmetology Courses ..... 200
Counseling and Guidance Courses ..... 202
Counseling and Student Development ..... 46
Course Descriptions ..... 157
COURSE LISTING ..... 305
Course Numbering System Defined ..... 157
Course Prefixes ..... 158
Course Progression ..... 27
Course Repetition ..... 27
Credit by Examination ..... 27
Credit Values ..... 159
Dance Courses .....  203
Definition of Unit ..... 159
DEGREES AND CERTIFICATES ..... 79
Disability Support Services ..... 46
Distance Education ..... 28
Drug-Free Environment ..... 34
Earth Sciences Courses ..... 207
Economics Courses ..... 209
Educational Objective - Transfer ..... 77
Electronic Devices ..... 34
Engineering Courses .....  210
English Courses ..... 210
English-as-a-Second Language Courses ..... 215
Environmental Sciences Courses ..... 217
Environmental Technology Courses ..... 218
EOPS ..... 47
Escort Service ..... 47
Ethnic Studies Courses ..... 219
Evening and Weekend College ..... 28
FACULTY AND ADMINISTRATION ..... 293
Fashion Courses ..... 221
Financial Aid ..... 47
Foods and Nutrition Courses ..... 224
French Courses ..... 224
Fullerton College Foundations ..... 49
GEN ED BREADTH REQUIREMENTS ..... 71
Gen Ed Requirements - Cal State Universities ..... 72
General Education Statement of Philosophy ..... 59
GENERAL INFORMATION ..... 11
Geography Courses ..... 225
German Courses ..... 227
Goals and Objectives ..... 12
Grade Appeal Process .....  34
Grading System .....  29
Graduation ..... 59
Graduation Requirements .....  66
Grants .....  48
Health Education Courses ..... 227
Health Services ..... 49
History Courses ..... 228
Honor Societies ..... 56
Honors Program ..... 30
Horticulture Courses ..... 230
Housing ..... 49
Humanities Courses ..... 233
I.D. Card, Campus Photo ..... 56
IGETC - Gen Ed Transfer Curriculum ..... 75
Industrial Drafting Courses ..... 206
Instructional Divisions/Departments .....  8
Interior Design Courses ..... 233
International Student Center ..... 49
International Students ..... 16
Italian Courses ..... 235
Japanese Courses ..... 235
Journalism Courses ..... 236
Learning Communities ..... 31
Library Services (LLRC) ..... 50
Library Technology Courses ..... 237
Lost and Found ..... 50
Machine Technology Courses ..... 237
Marketing Management Courses ..... 239
Math Lab .....  50
Mathematics Courses ..... 240
Mathematics Proficiency Testing .....  59
Matriculation ..... 18
Men and Women of Distinction ..... 56
Metallurgy Courses ..... 242
Microbiology Courses ..... 242
Military Experience Merit ..... 16
Multicultural Education Requirement ..... 61
Multiple Associate Degrees ..... 67
Music Courses ..... 243
Nondiscrimination Statement ..... 35
Office Technology Courses ..... 250
Open Enrollment Policy ..... 20, 159
Orientation ..... 20
Paralegal Gen Ed Requirements .....  62
Paralegal Studies - AS Degree at FC ..... 64
Paralegal Studies - Certificate Program at FC ..... 65
Paralegal Studies Courses ..... 253
Paralegal Studies Requirements ..... 63
Parking ..... 36
Petitions and Appeals ..... 36
Philosophy and Religious Studies Courses ..... 255
Photography Courses .....  257
Physical Education Courses .....  258
Physical Sciences Courses .....  267
Physics Courses .....  268
Political Science Courses ..... 269
Portuguese Courses ..... 270
Prerequisites ..... 158
President's Message ..... Inside Front Cover
Printing Technology Courses ..... 270
Probation and Dismissal Policy ..... 37
Psychology Courses ..... 272
Puente Project ..... 50
Reading Courses ..... 274
Real Estate Courses ..... 275
Recreation Courses ..... 276
Refunds ..... 20
Registration .....  20
Remedial Limitation ..... 31
Repeatable Activity Courses ..... 159
Residency for Tuition Purposes ..... 21
Review and Release of Information ..... 31
ROTC ..... 50
Russian Courses ..... 277
Service Learning ..... 51
Smoking on Campus ..... 37
Social Sciences Courses ..... 277
Sociology Courses ..... 278
Spanish Courses ..... 279
Special Admit Students .....  22
Speech Courses ..... 280
Standards of Student Conduct ..... 37
Statement of Ethics ..... 11
Statement of Mission, Vision and Core Values ..... 12
STUDENT ACTIVITIES ..... 53
Student Affairs ..... 56
Student Center ..... 57
Student Fees .....  22
Student Offices - Eligibility Requirements ..... 57
Student Publications ..... 57
Student Right-to-Know Act ..... 40
Student Support Services Courses ..... 281
Study Abroad ..... 32
Summary Suspension ..... 39
SUPPORT PROGRAMS AND SERVICES ..... 43
TAP: Transfer Achievement Program ..... 51
Teacher Preparation (CCE) ..... 51
Technology-Related Courses ..... 282
Tests/Exams ..... 32
Theatre Arts Drama Courses ..... 283
Transcripts ..... 23
Transfer Center ..... 51
Transfer Courses for the Cal State University ..... 69
Transfer Designation ..... 159
TRANSFERABILITY OF COURSES ..... 69
University of California Transfer Requirements ..... 74
Verification of Student Status ..... 23
Veterans' Services ..... 51
Vietnamese Courses ..... 286
Wait Time for Late Instructors .....  32
Welding Courses ..... 287
Wellness Courses ..... 288
Withdrawal Policy ..... 32
Withholding Student Records ..... 42
Women's Studies Courses ..... 289
Wood Technology Courses ..... 289
Work Experience Courses .....  291
Workforce Center ..... 52

## NOTICE TO STUDENTS

The information contained in this catalog is advisory only and does not constitute a contractual agreement by the college or guarantee that course content will be strictly followed or fulfilled. Fullerton College and the North Orange County Community College District reserves the right to change at any time, without notice, academic requirements to graduate, curriculum course content and structures, and such other matters as may be within their control, notwithstanding any information set forth in this catalog.

# Academic Calendar 2009-2010 North Orange County Community College District 



All calendar dates are subject to change without notice.

| $2009$ |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JANUARY | FEBRUARY | MARCH | APRIL | JANUARY | FEBRUARY | MARCH | APRIL |
| $\begin{array}{r} \text { SMTWTHS } \\ \text { H } 2 \mathrm{~S} \end{array}$ | $\begin{array}{lllllll} S & \text { T W T F S } \\ 1 & 2 & 3 & 4 & 5 & 6 & 7 \end{array}$ | $\begin{aligned} & \text { S M T W T F S } \\ & 123 \\ & 1 \end{aligned}$ |  | S M T W T F S |  | $\begin{array}{r} S M T W \end{array} \begin{array}{rlll} 1 & \text { T } \end{array}$ | $\begin{array}{r} \text { S M TW T F S } \\ 12 \end{array}$ |
| 4 W W W W W w | 89101112 H H | 891011121314 | 5 - B R E A K | 3456789 | 7891011 HH | 78910111213 | 45678910 |
| W W W W 121314 | H H17 18192021 | 15161718192021 | -131415161718 | 10111213141516 | H H1617181920 | 14151617181920 | 11121314151617 |
| 15161718 H20 21 | 22232425262728 | 22232425262728 | 19202122232425 | 17 H 1920212223 | 21222324252627 | 21222324252627 | 18192021222324 |
| 22232425262728 |  | 293031 | 2627282930 | 24252627282930 | 28 | 28293031 | 252627282930 |
| 293031 |  |  |  | 31 |  |  |  |
| MAY | JUNE | JULY | AUGUST | MAY | JUNE | JULY | AUGUST |
| $\begin{aligned} & \text { S M TWT F S } \\ & 12 \end{aligned}$ | $\begin{array}{r} \text { SMTW T F S } \\ 123456 \end{array}$ | $\begin{array}{r} S M T W T H S \\ 1 \text { H H H } \end{array}$ | SM TW T F S | SM TW T F S | $\begin{array}{r} \text { SMTWTMFS } \\ 12345 \end{array}$ | $\begin{array}{rlll} \text { S M TW T F S } \\ 1 & 2 & 3 \end{array}$ | $\begin{aligned} & \text { S M TW T F S } \\ & 12234567 \end{aligned}$ |
| 3456789 | 78910111213 | 567891011 | 2345678 | 2345678 | 6789101112 | 4 H678910 | 891011121314 |
| 10111213141516 | 14151617181920 | 12131415161718 | 9101112131415 | 9101112131415 | 13141516171819 | 11121314151617 | 15161718192021 |
| 17181920212223 | 21222324252627 | 19202122232425 | 16171819202122 | 16171819202122 | 20212223242526 | 18192021222324 | 22232425262728 |
| 24 H2627282930 | 282930 | 262728293031 | 23242526272829 | 23242526272829 | 27282930 | 25262728293031 | 293031 |
| 31 |  |  | 3031 | 30 H |  |  |  |
| SEPTEMBER | October | NOVEMBER | DECEMBER | SEPTEMBER | October | NOVEMBER | DECEMBER |
|  | $\begin{array}{rl}\text { S M TW T F S } \\ 1 & 2\end{array}$ | $\begin{gathered} \text { S M T W T F F S } \\ 12 \\ 1 \end{gathered}$ | $\begin{array}{r} \text { SMTW T F S } \\ 12345 \end{array}$ | S M T W T | SM TW T F S | $\begin{array}{r} \text { S M T W T F S } \\ 123445 \end{array}$ | $\begin{array}{r} \text { S M TW T F S } \\ 12 \begin{array}{l} \text { S } \end{array} \end{array}$ |
| 6 H 89101112 | 45678910 | 8 H 1011121314 | 6789101112 | 5 H 7891011 | 3456789 | 7891011 H13 | 567891011 |
| 13141516171819 | 11121314151617 | 15161718192021 | 13141516171819 | 12131415161718 | 10111213141516 | 14151617181920 | 12131415161718 |
| 20212223242526 | 18192021222324 | 22232425 H H H | 20212223 H H 26 | 19202122232425 | 17181920212223 | 21222324 H H H | 19202122 H H25 |
| 27282930 | 25262728293031 | H30 | 2728293031 | 2627282930 | 24252627282930 | H29 30 | 262728293031 |

## Fullerton College Administration

President Kathleen O'Connell Hodge, Ed.D.
Vice President, Student Services Toni DuBois, Ph.D.
Vice President, Instruction Lawrence Buckley, Ph.D.
Vice President, Educational Support Janet S. Portolan, Ed.D.
Director, Budget and Finance Adam O'Connor, M.P.A.
Dean, Academic Services Carol Mattson, M.A.
Dean, Admissions and Records Interim, Albert Abutin, M.S.
Dean, Business \& Computer Info Systems Ann Hovey, M.S.
Dean, Counseling and Student Services Lisa Campbell, M.P.A.
Dean, Fine Arts Robert Jensen, Ed.M.
Dean, Humanities Dan Willoughby, M.S.
Dean, Library Jackie Boll, M.S.
Dean, Mathematics and Computer Science Mark Greenhalgh, M.A.
Dean, Natural Sciences Bruce Cordell, Ph.D.
Dean, Physical Education Peter Snyder, Ph.D.
Dean, Social Sciences Daniel Tesar, M.A.
Dean, Student Support Services Robert Miranda, M.P.A.
Dean, Technology and Engineering Scott McKenzie, M.A.
Director, Academic Computing Technologies Nilo Niccolai, Ph.D.
Director, Academic Support Center Olivia Veloz, M.B.A.
Director, Bookstore Nick Karvia, B.A.
Director, Cadena/Transfer Center ..... Lily E. Espinoza, M.A.
Director, Campus Health Services Christine D. Kiger, M.S.N.
Director, Campus Safety ..... VACANT
Director, Financial Aid, Veterans' \& Student Services Greg Ryan, M.A.
Director, Institutional Research Kenneth Meehan, Ph.D.
Director, Physical Plant and Facilities Christine Fighera, B.S.
Director, Office of Special Programs Karen Rose, M.S.
Director, Student Activities Darlene Jensen, M.A.
Registrar Interim, Rena Negrete
Manager, Campus Accounting Cyndi Grein, B.S.
Manager, EOPS Cecilia Alvarado, M.S.
Manager, Instructional Technology Services ..... Robert Morison
Manager, International Students Program Pilar Ellis, M.S.Manager, Maintenance and OperationsJavier Sierra, B.A.
Manager, Systems Technology Services Co Ho, M.B.A.
Public Information Officer Andrea Hanstein, M.A.

## Instructional Divisions and <br> Departments

## Academic Services

BIdg 100 - 714.992.5003
Dean: Carol Mattson
Website: academicservices.fullcoll.edu
Catalog and Schedule
Curriculum
Distance Education
Foundation and Community Relations
Staff Development

## Business and Computer Information Systems

 BIdg 300 - 714.992.7032
## Dean: Ann Hovey

Website: http://bizdiv.fullcoll.edu
Accounting (ACCT)
Business Management (BUS)
Computer Information Systems (CIS)
Computer Information Systems - Gaming (CISG)
Marketing Management (MKT)
Office Technology (OT)
Paralegal Studies (PLEG)
Real Estate (RE)
Counseling and Student Development
Bldg 2000 - 714.992.7085
Dean: Lisa Campbell
Website: counseling.fullcoll.edu
Counseling and Guidance (COUN)
Student Services (STSV)

## Fine Arts

BIdg 1100 - 714.992 .7034
Dean: Bob Jensen (Office 1115)
Email: rjensen@fullcoll.edu
Website: finearts.fullcoll.edu
Art (ART)
Art Computer Graphics (ACG)
Music (MUS)
Theatre Arts (THEA)

## Humanities

Bldg 500, Room 522-O - 714.992.7036
Dean: Dan Willoughby
Website: humanities.fullcoll.edu
English (ENGL)
English as a Second Language (ESL)
Foreign Languages
Arabic (ARAB)
Chinese (CHIN)
French (FREN)
German (GERM)
Italian (ITAL)
Japanese (JAPN)
Portuguese (PORT)
Russian (RUSS)
Spanish (SPAN)
Vietnamese (VIET)
Reading (READ)
Speech (SPCH)

## Library Technology

BIdg 800 (LLRC) - 714.992.7039
Dean: Jackie Boll
Website: library.fullcoll.edu
Library Research (LIB)
Mathematics and Computer Science
Bldg 600, Room 613-02 - 714.992.7041
Dean: Mark Greenhalgh
Website: math.fullcoll.edu
Computer Science (CSCI)
Mathematics (MATH)

## Natural Sciences

BIdg 1000 - 714.992.7043
Dean: Bruce Cordell
Website: natsci.fullcoll.edu/
Anatomy and Physiology (ANAT)
Biology (BIOL)
Chemistry (CHEM)
Earth Sciences (ESC)
Environmental Sciences and Technology (ENVS)
Foods and Nutrition (FOOD/NUTR)
Geology
Health Education (HED)
Horticulture (HORT)
Microbiology (MICR)
Physical Sciences (PHSC)
Physics (PHYS)

## Physical Education

Bldg 1200 - 714.992.7045
Dean: Pete Snyder (Interim)
Website: pe.fullcoll.edu
Physical Education Activities and Theory (PE)
Dance (DANC)
Recreation (REC)
Wellness (WELL)

## Social Sciences

Bldg 1400, Room 1415 - 714.992.7047
Dean: Dan Tesar
Website: socsci.fullcoll.edu/
Anthropology (ANTH)
Child Development and Educational Studies (CDES)
Economics (ECON)
Ethnic Studies (ETHS)
Geography (GEOG)
History (HIST)
Latin-American Studies
Philosophy and Religious Studies (PHIL)
Political Science (POSC)
Psychology (PSY)
Sociology (SOC)
Social Science (SOSC)
Women's Studies (WMNS)
Student Support Services
BIdg 2000, Room 2020-04 - 714.992.7090
Dean: Robert Miranda
Associated Students
EOPS
Disability Support Services
Financial Aid
Health Services
Student Affairs
714.992.7118

Bldg 2000
714.992.7097

Bldg 800/Rm 842 714.992.7099
Bldg $100 \quad 714.992 .7091$
Bldg 1200/ 714.992.7093
Rm 1204
Bldg $200 \quad$ 714.992.7095

Technology and Engineering
Bldg 700 - 714.992 .7051
Dean: Scott McKenzie
Website: techneng.fullcoll.edu
Administration of Justice (AJ)
Architecture (ARCH)
Automotive Technology (AUTO)
Cinema-Radio-Television (CRTV)
Communications
Construction Technology (CSTR)
Cosmetology (COSM)
Industrial Drafting (DRAF)
Engineering (ENGR)
Fashion (FASH)
Interior Design (IDES)
Journalism (JOUR)
Machine Technology (MACH)
Metallurgy (METL)
Photography (PHOT)
Printing Technology (PRNT)
Welding (WELD)
Woodworking (WOOD)



## General Information

## About Fullerton College

Founded in 1913, Fullerton College is the oldest community college in continuous operation in California. As one of five institutions of higher learning in the city of Fullerton, the college is an integral part of a complex higher education system. Fullerton College offers a comprehensive academic program of lower division transfer courses and vocational training to prepare students for transfer as well as for the technology-driven workplace.

The 83-acre campus features 10 major institutional buildings that include conventional classrooms as well as laboratory facilities for science, art, computer technology, photography, automotive services, physical education, and other specialized programs. A full complement of athletic fields and facilities surrounds the campus.

The college enrolls in excess of 19,000 students. There are 315 full-time faculty and approximately 480 adjunct faculty who are supported by 285 classified employees and 43 managers. Dr. Kathleen O'Connell Hodge is the President.

## College Location

Fullerton College is located in the city of Fullerton, in Orange County, California.

For commuters, the beautifully landscaped campus is easily accessible to the 57 and 91 Freeways. The college is within close walking distance from the Metrorail station in downtown Fullerton, and buses regularly drop off and pick up students in front of the college on Chapman Avenue.

Fullerton College is in close proximity to several cultural and entertainment venues in Orange County and Los Angeles. It is also conveniently located near other institutions of higher learning in the surrounding cities.

## Continuing Education

The School of Continuing Education (SCE) is part of the North Orange County Community College District and offers business development and workforce training, a high school/GED completion program and personal enrichment (non-credit) courses for children, teens, and seniors.

SCE's Wilshire Center is located at 315 E. Wilshire Street in Fullerton across from Fullerton College. For more information, call (714) 992.9500, or visit www.sce.edu.

## Statement of Ethics

As representatives of Fullerton College, we all share the responsibility to conduct ourselves with integrity, and to act in a fair, consistent, and equitable manner. We recognize the need for openness and reliability in what we say and do. We are committed to addressing issues in a forthright and professional manner, and to engaging people without prejudice. As members of an educational community, we are committed to excellence in all that we do, and to adhering to the principles of ethical behavior established in this statement.

The conduct of each member of Fullerton College is expected to be consistent with and to comply with the principles contained in this statement. All members of the campus community are expected to engage in the following:

- Trustworthy conduct - including dependability, loyalty, and honesty in communications and actions.
- Respectful behavior - treating everyone with civility, courtesy, tolerance, and acceptance, and recognizing the worth, dignity, and unique characteristics of each individual.
- Accountability - taking personal responsibility for one's own actions and decisions.
- Fair and just actions - utilizing equitable processes in decision making.
- Compassion - caring for others, both within and apart from the campus community, and providing services to others in a manner that reflects our commitment to them and to their well-being.


## Goals and Objectives

In Spring 2006, the North Orange County Community College District (NOCCCD) Board of Trustees and Chancellor adopted a process to create a comprehensive Strategic Plan to guide the future quest of excellence for the District and each of its programs at Cypress College, Fullerton College, and the School of Continuing Education.

Fullerton College's 2009-2011 goals were developed on a parallel path and are consistent with the focus areas of the NOCCCD Strategic Plan, as outlined below.

## Focus Area I: Innovation \& Relevancy for All Learners

Goal 1: Instructional programs provide the necessary basic skills training, current and relevant vocational skills, successful transfer preparation, and life-long learning options to meet the needs of our students and community.
1.1 Develop a college-wide educational master plan.
1.2 To improve basic skills programs, support the assessment process for basic skills initiatives.
1.3 Support improvement of vocational and transfer programs through analysis of program review data.
1.4 Complete the SLO cycle for all active courses, programs, certificates, and degrees.
1.5 Explore district-wide financial support and infrastructure for distance learning.

Goal 2: The campuses provide the necessary student services to ensure learning success.
2.1 Improve college-wide knowledge of student services.
2.2 Augment the training opportunities for certificated and classified staff members.
2.3 Create a college-wide student equity initiative.
2.4 Address outcomes of the Student Success Summits.
2.5 Administer a student satisfaction survey.

## Focus Area II: Intra-District \& Community Collaboration

Goal 3: A mutual understanding of and appreciation for each other's value and contribution exists among Cypress College, Fullerton College, the School of Continuing Education, and the District.
3.1 Complete a District-Wide Functional Map.
3.2 Enhance SPMS system for district-wide linkage of financial data/payroll and course scheduling.
3.3 Work in collaboration district-wide on projects to enhance the college:
a. Budget Allocation
b. Non-Credit Labs
c. Distance Learning
d. Emergency Preparedness
3.4 Participate in Strategic Conversations.
3.5 Increase involvement in staff development activities.

Goal 4: NOCCCD is a vital and integral part of the community.
4.1 Continue to cultivate relationships with the City of Fullerton by participation by FC representatives on community committees (e.g., Education, Housing Authority, Chamber of Commerce).
4.2 Investigate possibility for involvement in cities in our service area outside Fullerton.
4.3 Finalize MOU/Master Agreements with both the Friends of Fullerton College and the Fullerton College Foundation and determine exactly how each will be utilized for the maximum benefit of the college.
4.4 Develop and support partnerships and programs that bring community events and community members to the campus for educational, cultural and social activities.

Goal 5: Effective leadership and decision-making are based on an inclusive process that uses data, standards, law, policies, and procedures.
5.1 Write formal procedures to codify institutional planning and decision making process.
5.2 Develop implementation guidelines for Budget \& Planning calendar.
5.3 Develop campus climate survey.
5.4 Strengthen the participatory governance process.

## Focus Area III: Effective \& Efficient <br> Use of Resources

Goal 6: District revenue-generating opportunities are maximized.
6.1 Maximize college efforts to optimize revenue for FTES production while maintaining academic and vocational balance, grant opportunities, VTEA funds, categorical programs, private donations and private funding sources.

Goal 7: Through effective planning and using resources efficiently, the District/campuses, provide facilities, equipment, technology, and infrastructure to adequately support instructional programs and services.
7.1 Develop an educational master plan that links ongoing review of programs with modifications in buildings, grounds, technology and infrastructure.
7.2 Establish regular replacement plans for technology infrastructure and equipment, motor pool/maintenance vehicles and other major capital support items for operational support to instruction and other campus services.
7.3 Use SPMS system to improve instructional program planning and scheduling processes and procedures to maximize student access and success.
7.4 College support services will review and evaluate processes to assure the best service to the college-wide community.
7.5 Provide appropriate technology, equipment and infrastructure to support instructional programs.

Goal 8: Marketing/communications efforts are evaluated and refined on an ongoing basis to enhance effectiveness of outreach in enrollment management, business and industry partnerships, grant writing, and fund raising.
8.1 Establish a campus-wide external community outreach program, partnering with community groups and local industry.
8.2 Expand and coordinate internal and external Marketing and Outreach efforts.

## Statement of Mission, Vision, and Core Values

## Mission

We prepare students to be successful learners.

## Vision

Fullerton College will create a community that promotes inquiry and intellectual curiosity, personal growth and a lifelong appreciation for the power of learning.

## Core Values

We respect and value the diversity of our entire community.
We value tradition and innovation.
We support the involvement of all in the decision-making process.

We expect everyone to continue growing and learning.
We believe in the power of the individual and the strength of the group.

We expect everyone to display behavior in accordance with personal integrity and high ethical standards.

We accept our responsibility for the betterment of the world around us.


## Admissions and Records/Registration

The college catalog must be prepared well in advance of the time period it covers; therefore, changes in some programs and policies may occur. Courses as described are subject to change without notice, and some listed courses are not offered each year. In addition, some courses or programs that are offered may have to be cancelled because of insufficient enrollment, elimination or reduction in programs, or for any other reason considered sufficient by the College president or designee.

## Academic Accommodations for Students with Disabilities

In accordance with Federal and State regulations, procedural language has been established to address the provision of educational accommodations to students with disabilities who are otherwise qualified to participate in the College's courses, programs and activities. Copies of the procedure are available in all Division Offices and Student Services areas. (See Disability Support Services)

## Admission Requirements

Admission to Fullerton College is governed by the laws of the State and such supplementary regulations as have been prescribed by the Board of Trustees.

The following persons are eligible to enroll in Fullerton College:

- Any high school graduate, OR
- Any person possessing a California high school proficiency certificate, OR
- Any person 18 years of age or older who may benefit from instruction, OR
- Any K-12 student qualifying as a "Special Admit" student


## Advanced Placement

Students who have attained a minimum score of " 3 " on College Board Advanced Placement Examinations may receive credit for those courses that are deemed equivalent to the courses offered by Fullerton College. It is the student's responsibility to petition for credit through the Admissions and Records Office. Once Advanced Placement credit is posted to the student's transcript, it cannot be removed.

NOTE: The posting of Advanced Placement credit for courses on the Fullerton College transcript does not ensure their transferability to four-year schools. Each college and university grants AP credit according to its own policy. In some cases, Fullerton College will grant more units of credit (in other cases, fewer units of credit) for transfer admission purposes. AP credit for the major frequently requires higher scores or may not be accepted at all. Students planning to transfer should consult the catalog(s) of the transfer institution(s) to determine how AP credit is granted for the purpose of admission, general education and the specific major prior to petitioning for credit.

## AP Examination

Art (History)
Art (Studio Drawing)
Biology (Score of 4)
Chemistry (Score of 4)
Chemistry (Score of 5)
Computer Science A
Computer Science AB
Economics - Micro
Economics - Macro
English Language \& Comp
English Comp \& Literature
English Comp \& Literature
(Score of 4 or 5)
French (Language)
German (Language)
Government \& Politics (U.S.)
Government \& Politics
(Comparative)
History (U.S.)
History (European)
Mathematics: Calculus AB
Mathematics: Calculus BC
Mathematics: Statistics
Physics (B) (Score of 3 or 4)
Physics (B) (Score of 5)
Physics (C - Mechanics)
(Score of 5)
Physics (C - Elec \& Mag)
(Score of 5)
Spanish (Language)
Spanish (Literature)
CLEP Examination
English Composition
Exam with Essay
(Score of $51 \%$ or better)
Equivalency for courses not listed above will be determined by the appropriate academic department.

| Credit Allowed | Units |
| :--- | :--- |
| ART 112 F and 113 F | 6 |
| ART 182 F | 3 |
| BIOL 101 F | 5 |
| CHEM 107 F | 5 |
| CHEM 111AF | 5 |

See Business/CIS Division
See Business/CIS Division
ECON 101 F 3
ECON 102 F 3
ENGL 100 F 3
ENGL 100 F 3
ENGL 100 F and 102 F 6
FREN 101 F and 102 F 10
GERM 101 F and 102 F 10
POSC 100 F 3
POSC 215 F 3
HIST 170 F and $171 \mathrm{~F} \quad 6$
HIST 110 F and 111 F 6
MATH 150AF 4
MATH 150AF and 150BF 8
MATH 120 F 4
PHYS 205 F 4
PHYS 205 F and 206 F 8
PHYS 210 F or 221 F 4
PHYS 211 F or 222 F 4
SPAN $101 F$ and 102 F 10
SPAN 205 F and 206 F 6
Credit Allowed Units
ENGL 100 F and 102 F 6

## Bursar's Office

This office is located in the Student Services Building (2000). Accounting services are provided for student activities, fee collection, distribution of payroll and grant checks to students, and bus pass sales. The office accepts MasterCard and Visa for payments. Hours are 8:00 am to 5:00 pm, Mon-Thurs, and 8:00 am to 2:00 pm on Fridays.

## ATM

The campus has two full-service Automated Teller Machines (ATMs) with 24-hour access. One is located on the main side of the campus on the north side of the 500 building. The second is across Chapman Avenue in front of the Bookstore, Building 2000. Both machines accept several different types of credit and bank debit cards. This service is offered by the SchoolsFirst Federal Credit Union (formerly OCTFCU) and is not affiliated with or a responsibility of the college or the Associated Students. Both machines dispense $\$ 5$ and $\$ 20$ bills and assess a charge of $\$ 1.50$ for non-members of the credit union co-op.

## Corrections to Student Information

Name changes will be recorded only for students who are currently enrolled. Documentation, such as, a marriage license, court order, or naturalization papers, is required for verifying a legal name change. Requests to have a student's name changed on official college records are submitted to the Admissions and Records Office.

Date of birth and social security number corrections are submitted to the Admissions and Records Office. Documentation substantiating correction may be required.

## Military Experience Credit

College level correspondence courses completed through the United States Armed Forces Institute (USAFI) will be accepted for credit. The transcript for such courses must be mailed directly to the Admissions and Records Office from DANTES Contractor Representative (transcripts), Madison, Wisconsin 53713.

Service training schools conducted by the various branches of the Armed Forces are accepted for credit value as recommended by the latest edition of $A$ Guide to the Evaluation of Educational Experiences in the Armed Forces; American Council on Education.

A student may petition for an evaluation of military education and experience upon completion of 40 degree applicable units from an accredited college or university, including a minimum of 12 units at Fullerton College. It is the student's responsibility to petition for credit through the Veterans' Affairs Office.

A photocopy of the DD214 (discharge papers) must be submitted with the evaluation petition. The credit awarded is elective only and posted to the transcript upon graduation from Fullerton College. Elective credit granted for military work will not exceed 30 units.

## International Students (F-1 Student Visa)

The goal of the International Student Center is to provide educational opportunities for international students and to promote international understanding on campus and in the community. The following regulations govern the admission of F -1 student visa students to Fullerton College.

1. Application deadlines are as follows: Applicants outside of the U.S. must submit complete applications by June 1 (Fall), November 15 (Spring), and May 1 (Summer). F-1 visa holders currently in the U.S. must apply by August 1 (Fall), December 1 (Spring), and May 15 (Summer). A $\$ 40$ nonrefundable application fee is required for processing.
2. F-1 students are required to pay non-resident tuition, enrollment and health fees and are strongly encouraged to purchase a Campus Photo ID Card. See "Student Fees" for additional information.
3. F-1 visa students are required to complete a full course of study (minimum of 12 units) each Fall and Spring semester. In accordance with SEVIS regulations, failure to do so will be reported to the U.S. Immigration and Customs Enforcement and status will be terminated.
4. Enrollment of F-1 visa students is limited to a maximum of six semesters.
5. Criteria for admission of F-1 visa students:
a. The applicant must demonstrate English proficiency as indicated by a minimum TOEFL score of 500 (pBT) or 61 (iBT). Applicants currently in the U.S. may take the Fullerton College ESL placement test to substitute for the TOEFL test.
b. Applicants must be at least 18 years of age or have earned the equivalent of an American high school diploma, or have attended 12 years of elementary and secondary schools. The student must submit official academic records accompanied by a certified English translation. Evaluations of foreign transcripts and other admission documents will be based upon the recommendations of The Country Index, The World Education Series of the American Association of Collegiate Registrars and Admissions Officers, or other sources.
c. Applicants must provide evidence of financial responsibility. Certification of Parent, Self, or Sponsor support required. Official bank statements must be translated into English and represent American currency.
d. Applicants must submit original or certified copies of transcripts of any college coursework completed. Foreign language transcripts must be accompanied by certified English translations.
e. F-1 visa applicants who have attended other American schools or colleges may be considered for admission provided the applicant meets Fullerton College admission requirements and is in status with U.S. Immigration and Citizenship Services. F-1 visa applicants who have completed two or more years of college will be advised to seek admission to an institution offering upper division courses.

After completion of the listed requirements, the applicant will be considered for admission and will be notified within two weeks. When accepted, the applicant will be sent an acceptance letter, form I-20, and registration and orientation materials.
6. The F-1 visa student shall be held to the same scholastic requirements and to the same College rules and regulations as other students.
7. F-1 visa students must purchase the health and accident insurance policy mandated by the college. This policy includes major medical coverage including repatriation and evacuation. Students who do not purchase health insurance will not be able to register for courses.
8. F-1 visa students are required to comply with U.S. Federal Code, Department of Homeland Security (DHS), and Citizenship and Immigration Services (CIS) regulations that pertain to F-1 visa students. Review Code of Federal Regulations, Title 8 CFR Part 22 Section 214.2(f).
9. F-1 visa students will not be accepted for admission into any program where applications by qualified U.S. citizens exceed spaces available.

## F-1 Visa Concurrent Enrollment

Students enrolled full time at another institution from which they have a valid I-20 are permitted to enroll at Fullerton College on a part-time basis. These students are limited to enrollment, which will not exceed two classes and when combined equal no more than seven units. The "F-1 Student Enrollment Agreement" form must be completed, approved by the student's school and the Fullerton College International Student Center, and submitted with the application for admission. F-1 students must pay all appropriate fees.

## B-1/B-2 Tourist Visa Regulations

U.S. Federal Code states that B visa holders "violate the conditions of his/her status if he/she enrolls in a course of study. [Those] who desire to enroll in a course of study must either obtain an $\mathrm{F}-1$ or $\mathrm{M}-1$ non-immigrant visa from a consular officer abroad and seek re-admission to the United States, or apply for and obtain a change of status." B visa holders are encouraged to speak directly with the International Student Center about obtaining F-1 status in order to legally enroll at Fullerton College.

## F-2 Visa Regulations

U.S. Federal Code states that "an F-2 spouse or F-2 child violates his/her non-immigrant status by engaging in full time study. The F-2 spouse and child of an F-1 student may engage in study that is avocational or recreational in nature." F-2 visa holders are encouraged to speak directly with the International Student Center regarding their legal enrollment at Fullerton College and a possible change of non-immigrant status.

For more information regarding international student admissions and the F-1 visa, go to http://isc.fullcoll.edu or contact the International Student Center at (714) 992.7078 or isc@fullcoll.edu. The ISC is located in Room 220 in the College Center.

## Permanent Resident Status

Admissions requirements are the same as for United States citizens. Applicants may be asked to present their permanent resident cards, and/or other immigration documents at the time of application. No photocopied cards will be accepted. Residency is based on one year from the date on the application for the visa, or the permanent resident card, or other immigration document. Students must have resided in California for one year and one day prior to the opening day of instruction of the semester or term, as set by the Board of Trustees, and must prove intent to make California their permanent residence.

## Other Visas

Contact the Admissions and Records Office for further information.

## Visa Dependence

Legal stay typically expires when a dependent child turns 21. Dependent children should contact the International Student Center 6-12 months before turning 21 to discuss a possible change of an F-1 status.

## All Visas

Visa regulations subject to change.

## Matriculation

In compliance with the State Matriculation Mandate (AB-3), and Fullerton College's long-standing commitment to help students succeed, all non-exempt students seeking to enroll in courses will participate in some or all of the components of the matriculation program.

## Matriculation Status

Each student at the time of admission is a "Matriculated" student.

## STUDENTS MAY BE EXEMPT FROM ONE OR MORE MATRICULATION REQUIREMENTS WHEN THEY PROVIDE PROOF OF ONE OF THE FOLLOWING:

A. Completion of an AA degree or higher at an accredited college or university.
B. Completion of college coursework in English and math with a grade of "C" or better.
C. Scores from approved assessment tests taken within the last two years.
D. Enrollment in one job related or performance based class (e.g., music).
E. A matriculated student at another college enrolling in one non-English or math class.
F. A high school Special Admit student not intending to take math, reading or English classes.

A student may petition to be EXEMPT from one or more matriculation requirements by completing and filing a "Matriculation Services Eligibility Form." These forms are available from the Admissions and Records and Counseling offices. The completed form must be filed with the Dean of Counseling or Matriculation Coordinator. Students will be notified of action on their petition no later than three days after the petition is filed.

## Matriculated Services

Matriculated (non-exempt) students will be provided the following services:

1. Skills Assessment - students will receive an evaluation of their learning skills in reading, writing, English as a Second Language (ESL) and mathematics. This is done through the use of tests, review of past school records (high school and college), and other information presented during a counseling interview. Assessment tests are available for native speakers of English as well as for those with limited English proficiency.
2. Orientation - students will receive an overview of college services, programs, certificates, degrees, majors, and registration procedures. Assessment test scores are explained as guides for registering for writing, reading, ESL and mathematics courses. Orientation is completed online at the time of assessment testing or may be accessed through each student's personal myGateway account.
3. Counseling - students will receive assistance from counselors to plan their semester class schedule and to initiate a Student Educational Program Plan. All students are encouraged to visit a counselor during the year. On-line counseling is available to students seeking answers to general questions about policies and procedures, program requirements, prerequisites, course offerings, services and transferability of courses. On-line counseling may be reached through the counseling department homepage at http:// counseling.fullcoll.edu/.
4. Student Educational Program Plan - new students are encouraged to see a counselor for help planning their courses prior to their appointed registration time. Students should see a counselor for assistance in developing a Student Educational Program Plan (SEPP) no later than the semester after they complete 15 units.
5. Follow-Up - Progress checks and assistance by counselors and instructors help students make successful progress towards their goals. Students on probation or academic/progress dismissal are notified each year in the Spring term. Students encountering difficulties are referred to Counseling or appropriate college resources as needed.

These matriculation services are designed to provide assistance to students so that their opportunities for success and achievement of their goals are improved. Students wishing to defer any aspect of the matriculation process may do so at the Counseling Department. Students wishing to appeal any decisions or recommendations regarding courses to be taken based upon assessment results may file a petition with the Dean of Counseling/Matriculation Coordinator (see Matriculation Appeals).

## Matriculation Appeals Procedures

All matriculated students have the right to challenge or appeal any step in the matriculation process. A Matriculation Appeals Petition may be filed for any of the following concerns:

1. Petition for exemption - Students may petition to be exempted from assessment, orientation and/or counseling. The student shall complete and file a "Matriculation Services Eligibility Form" with the Dean of Counseling or Matriculation Coordinator. The Dean of Counseling or Matriculation Coordinator will notify the student within three days at the decision regarding his/her appeal.
2. Review of placement decisions - For English as a Second Language (ESL), English or reading placement appeals, the student shall make an appointment with the Dean of Counseling. The Dean of Counseling shall see the student within three (3) working days. If the Dean of Counseling is unavailable within that time, the student shall take the appeal directly to the Dean of Humanities. For mathematics placement appeals, the student shall make an appointment with the Dean of Counseling. The Dean of Counseling shall see the student within three (3) working days. If the Dean of Counseling is unavailable within that time, the student shall take the appeal directly to the Dean of Mathematics and Computer Science. In all cases, the student shall present documents and information to support his/her appeal. The decision of the Dean shall be given in writing and shall serve as final decision in the appeal. Students approved for a higher course placement should see a counselor for course clearance for registration purposes.
3. Enrollment limitations: prerequisites/corequisites - A prerequisite is a course that must be completed before a more difficult course is attempted. For example, before PHYS 221 F General Physics can be attempted, the prerequisite MATH 150AF Calculus must be completed with a grade of "C" or better. Course prerequisites are identified in the College Catalog. Section 55003 of the Matriculation Regulations permit the following types of prerequisites and corequisites:
(1) Completion of any course in a sequence of related courses if understanding or technical performance is necessary for success in later courses in the sequence. An example of this is a foreign language sequence. Before enrolling for SPAN 203 F it may be necessary to complete SPAN 101 F and 102 F .
(2) Prerequisites may also refer to skills measured by assessment instruments, methods or procedures where a required level of performance is necessary for success in a course or program. For example, some ways in which skills are measured are through placement tests, high school transcripts, or counselor interviews which help determine placement in English, ESL, reading and mathematics.
(3) Enrollment limitations may also include corequisites, which generally require a student to concurrently enroll in one course as a condition of enrollment in another course. For example, the corequisite MUS 107AF Harmony I is required when enrolling for MUS 104AF Beginning Musicianship. However, with some exceptions, corequisites may also be completed prior to enrollment in a restricted course.

Student Rights to Challenge Prerequisites/Corequisites: Section 55003 of Title V states: Any prerequisite or corequisite may be challenged by a student on one or more of the grounds listed below. The student shall bear the initial burden of showing that grounds exist for the challenge. Challenges shall be resolved in a timely manner and, if the challenge is upheld, the student shall be permitted to enroll in the course or program in question. Grounds for challenge are:

1) The prerequisite or corequisite has not been established in accordance with the district's process for establishing prerequisites and corequisites.
2) The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner.
3) The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite.
4) The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite course has not been made reasonably available.

## How to Challenge Prerequisite/Corequisite:

- A petition to challenge a prerequisite/corequisite for a course that is not offered may be filed with the Dean of the division responsible for the course. All petitions must be filed prior to the first day of the semester.
- A petition to challenge a prerequisite/corequisite because the prerequisite/corequisite was not established in accordance with the district's process for establishing prerequisite/ corequisites or because the student has prior knowledge or ability to succeed in the course may be filed with the Dean of the division responsible for the course.
- A petition to challenge a prerequisite/corequisite because it is discriminatory or is being applied in a discriminatory manner may be filed with the Matriculation Coordinator who will convene a committee consisting of the Director of Equity and Diversity, the Matriculation Coordinator and a member of the Matriculation Committee to review the petition.
- Students wishing to appeal the decision of the Dean(s) may do so by meeting with the Vice President of Instruction. Students wishing to appeal the decision of the committee regarding a discriminatory application of a prerequisite or corequisite may do so by meeting with the Dean of Counseling.

4. Complaint of unlawful discrimination - If a student feels assessment, orientation, counseling, prerequisites (or any other Matriculation procedure) is being applied in a discriminatory manner, a petition may be filed with the Matriculation Coordinator. The Matriculation Coordinator shall convene a three (3) member panel consisting of the Director of Equity and Diversity, the Matriculation Coordinator and an additional member to review the student's petition. The panel shall meet and provide a written notification to the student within seven (7) working days. (Students wishing to appeal the committee's decision may do so by meeting with the Dean of Counseling.) Petitions for the above appeals are available in the Counseling Center.

## Matriculated Student Responsibilities

Matriculated students have responsibilities, which include the following:

1. To express a broad educational intent upon admission.
2. To declare a specific educational goal no later than during the term after which the student completes 15 semester units. The student shall then have 90 days in which to develop a Student Educational Program Plan (SEPP).
3. To participate in counseling/advising.
4. To attend class, complete assignments and maintain progress toward a goal.

If you have any questions regarding the above Matriculation information, please contact the Matriculation Coordinator at (714) 992-7245.

## Open Enrollment Policy

It is the policy of the 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(s) and who meets such prerequisites as may be established pursuant to Chapter 11 Division Two Part VI, Title 5 of the California Administrative Code, commencing with Section 51820.

## Orientation

See Matriculation in this section.

## Refunds

(Pursuant to section 58508 of Subchapter 6 of Chapter 9 of Division 6, Title 5 of the California Code of Regulations.)

Students who withdraw from college or drop semester length classes during the first two weeks of the Fall or Spring semester will be eligible for a refund. This includes enrollment, tuition, health, A.S. Sticker, and parking fees. Refer to the current class schedule or contact the Admissions and Records Office for refund deadlines for short term, late starting or Summer term classes, as deadlines can be as early as the first or second day of class. A refund processing fee of $\$ 10$ will be withheld once each term.

Refunds will be mailed approximately six to eight weeks after the beginning of the semester.

## Registration

Registration is the process of becoming officially enrolled in classes. All new and former (returning) students must submit an Application and be admitted to the college before registering. An application must be submitted online through CCCApply. Visit the website at www.fullcoll.edu for information and instructions. For students without Internet access, computer terminals are available in the lobby of the Admissions and Records Office, Student Services Building 2000.

Registration is by appointment. Priority appointment times are issued to continuing students by total units completed at Fullerton and Cypress colleges. For new and former (returning) students, registration appointments are based on date of application. Special Admit students are not eligible for priority registration.

Throughout the registration process (including class petitioning), certain deadlines must be established. These deadlines are necessary in order to comply with State attendance laws and must be followed by all faculty and students. Failure to comply with these deadlines may mean that the student will not be allowed to attend or receive credit for the class.

| Continuing Student: | Currently enrolled at Fullerton <br> College and will receive a <br> grade. |
| :--- | :--- |
| Former (Returning) Student: | Previously attended Fullerton <br> College or currently enrolled <br> but will not receive a grade. |
| New Student: | Never enrolled in classes at <br> Fullerton College. |
| Special Admit Students: | K-12 grade level students <br> concurrently enrolled at |
|  | Fullerton College. |

## Residency for Tuition Purposes (per Education Code, Section 68060)

The Office of Admissions and Records determines the resident status of all new and returning students. Responses to the Application for Admission and, if necessary, other evidence furnished by the student are used in making this determination. A student who does not submit adequate information to establish the right to classification as a California resident will be classified as a nonresident.

The resident determination date is the day immediately preceding the opening day of instruction of the semester or term as set by the Board of Trustees. Generally, residency requires actual physical presence in California one year prior to the residence determination date, coupled with proof of the intent to make California one's home.

## Factors Considered to Determine Residency

A person's presence in California and the factors below are considered in determining California residency. No one factor determines residency.

- Proof of employment (paycheck stub) in California, along with filing California State Income taxes as a resident
- Possessing a valid California Driver's License
- Registering a vehicle in California
- Voting in California
- Owning residential property in California and currently residing on that property
- Being licensed to practice a profession in California
- Having an active checking and/or savings account in a California bank
- Showing California on military records (DD214, Military Orders, Leave and Earnings Statement)
- Possessing a divorce decree issued in California
- Having paid nonresident tuition in another state


## Exceptions to Residency Requirements

Several exceptions to the residency rules apply per Education Code. They include, but are not limited to the following:

- Active duty military personnel stationed in California
- Dependents of active duty military stationed in California
- Certain minors who remained in California when parents moved
- Self-supporting minors
- Full-time employees of California State University and Colleges, the University of California, or any California Community College, or State of California agency, or a child or spouse of the full-time employee


## Nonresident Student

A student's resident status is determined at the time of application. A nonresident student must pay nonresident tuition in addition to the enrollment fee and other fees (including a \$20 Capital Outlay Fee per Education Code 76141) for credit classes.

## Assembly Bill AB 540

This act allows all persons, including undocumented immigrant students who meet the requirements set forth in Section 68130.5 of the Education Code to be exempt from nonresident tuition in California's colleges and universities.

## Who Qualifies?

- An alien student who is without lawful immigration status (undocumented, out of status).
- A U.S. Citizen or Permanent Resident card holder who does not meet the California residency requirement.


## Requirements

- Student attended a high school (public or private) in California for 3 or more years.
- Student graduated from a California high school or attained the equivalent (for example, passing the GED, California High School Proficiency Exam, or Certificate of Completion) prior to the start of the term.
- All qualified students who are without lawful immigration status must file an affidavit with the college stating that he/she has filed an application to legalize his/her immigration status, or will file an application as soon as he/she is eligible to do so.
- All students who do not meet the California residency requirements and are eligible for this exemption must file an affidavit with the college.

The affidavit is included in the California Nonresident Tuition Exemption form which is available in the Admissions and Records Office. Students living outside the state and enrolled via distance education are not eligible for the AB 540 exemption (Revised Guidelines for Implementation of AB 540 - Firebaugh, October 23, 2003).

## Special Admit Students

Students may enroll in college classes as Special Admit students while concurrently enrolled at another school at the K-12 grade level. Enrollment is for advanced, enrichment courses. Special Admit students must be recommended by their principal or school designee and must meet all course prerequisites. K-8 students must also be recommended by the respective Instructional Dean at the college.

## Persons under 18 years of age/not enrolled in school, enrolled in private school or home schooled students:

Persons attending a Home School Program or persons under 18 years of age who are not high school graduates and are not currently enrolled in school may be eligible as Special Admit students with the following exceptions:

- If a local high school or ROP program offers a course in the subject area requested, the student may not enroll in the equivalent course as a Special Admit student at Fullerton College
- Home School programs must be accredited by Western Association of Schools and Colleges from Grades 9-12
- Obtain College President's signature, or designee
- Applicants must pay ALL applicable fees at the time of registration

Part-time Special Admit students (enrolled in 1-11 units) in grades 9-12 are exempt from enrollment fees, but must pay health fees.

Part-time Special Admit students (enrolled in 1-11 units) in grades K-8 must pay enrollment and health fees.

Full-time Special Admit Students (enrolled in 12-18 units) must pay enrollment and health fees.

## Students on F-1 and F-2 visas are not eligible to enroll as Special Admit students.

Restrictions are placed on high school students wishing to take some Fullerton College courses, including, but not limited to, English, ESL, reading and math.

For further information on the Special Admit Program, contact the Admissions and Records Office at (714) 992-7075 or the Counseling Division at (714) 992-7010.

## Student Fees

- Fees are subject to change
- Fees are payable by cash, check, MasterCard or Visa

Returned checks must be paid in the form of cash or money order, and a $\$ 25.00$ service charge will be added to the amount owed. All checks returned for "Stop Payment" will also be subject to the $\$ 25$ service charge. A student's enrollment at Fullerton College as well as his/her credit may be affected.

## A.S. Benefits Validation

See "Student Affairs and Activities."

## Campus Photo ID Card

All students are strongly encouraged to purchase a campus identification card. This card serves as positive photo identification for the Library, the Admissions and Records Office, various labs, the Bookstore, and other needed areas/services. A current Schedule/Bill and valid picture ID is needed at the time of production and/or validation. The charge for a Campus ID Card is $\$ 2.50$. All ID cards not picked up by the last day of the semester purchased will be voided. Replacement and voided campus ID cards are also \$2.50.

## Course Fee

These fees are noted in the class schedule.

## Enrollment Fee

The enrollment fee is $\$ 20$ per unit. This fee is subject to change by legislative action.

## Health Fee

All students who enroll in classes through Fullerton College are required to pay a $\$ 16$ Health Fee per semester (\$13 for the Summer term). This Health Fee entitles students to a variety of health services. Health Fees are charged to all students whether or not they choose to use health services.

Any student who depends exclusively on prayer for healing in accordance with the teachings of a bona-fide religious sect, denomination or organization is exempt from paying the health fee. Upon request, the health fee will be refunded to any student who withdraws from all courses prior to the $10 \%$ date of the length of the course.

## Non-resident Tuition Fee

Non-resident students will be charged a tuition fee of $\$ 190$ per semester unit for the 2009-2010 school year. Non-resident students who are citizens and residents of a foreign country will be charged a tuition fee of $\$ 210$ per semester unit. NOTE: All nonresidents must also pay the enrollment fee and health fee.

## Parking Fee

To park on campus, parking permits can be purchased:

\$35 (\$20 during Summer Term) Auto<br>\$20 (\$10 during Summer Term) Motorcycle \$20 (all terms)<br>Students with BOGW Fee Waiver

Pay fee during registration. A limited amount of metered parking is available. For additional information, see "Parking" under "College Policies."

## Transcripts

## High School Transcripts

All matriculated students should have official transcripts sent to the Counseling Office from their high schools.

## Other College Transcripts

Students with previous college units should have transcripts from all colleges previously attended sent to the Fullerton College Admissions and Records Office. These transcripts can verify completion of prerequisite courses, eliminating the necessity of taking all or part of the placement tests, and can assist the academic counselors in working with the students. Official transcripts from other colleges are required for evaluation toward a certificate, associate degree, or meeting general education requirements for transfer.

## Fullerton College Transcripts

The Admissions and Records Office prepares and permanently retains a record of each student's academic work. A student's transcript reflects all academic work attempted at Fullerton College. It lists chronologically the courses, units, grades, cumulative grade point average, transfer credits (posted after graduation), and total units.

Transcripts requested via mail or in person for current/noncurrent students will be processed within 10-15 business days (not including the mailing time). Forms for requesting transcripts are available in the Admissions and Records Office and on our website: www.fullcoll.edu. Mail requests must include the current name and all names used in the past, current address, phone number, date of birth, social security number, dates of attendance, where transcript is to be sent, number of copies needed, any instructions for special handling, and the student's full signature. Send requests to: Fullerton College, Admissions and Records Office, 321 East Chapman Avenue, Fullerton, CA 92832-2095.

Transcripts may be requested online through myGateway. Visit the Admissions and Records website for complete instructions. The processing time for web requests is $7-10$ business days (not including mailing time). Rush is not available for this service.

Electronic transcripts can be sent to various institutions. Log on to myGateway and visit "Student Links" for more information.

Students who have completed General Education Certification requirements (for additional information, refer to General Education Breadth Requirements - Four Year Colleges and Universities), need to request that an evaluation is included with the transcript when it is sent to the university. Due to the need for accuracy in this evaluation, rush service is not available. Processing time is $10-15$ business days.

Students are entitled to two (2) free copies of their transcripts. Subsequent copies are $\$ 3$ per copy. (Note: Fee is subject to change at any time.) On Demand/Rush transcripts can be obtained for an additional $\$ 10$.

Transcript requests must include full payment to be processed. Requests will not be processed if the student has outstanding financial obligations to the college. Only checks or money orders are accepted and should be made payable to Fullerton College. Cash payments may be made at the Admissions and Records Office but are not recommended to be sent through the mail.

In accordance with the Family Educational Rights and Privacy Act of 1974, records may not be released to a third party without prior written authorization of the student. Contact Admissions and Records for more information. A picture ID is required when requesting transcripts in person.

## Verification of Student Status

The Admissions and Records Office verifies current term registration and dates of enrollment for non-campus certification. Photo ID is required for service. There is a $\$ 3.00$ verification fee per request. Rush requests are an additional $\$ 10$. Verifications for loan forms are processed in the Financial Aid Office.

To conveniently serve our students, enrollment verification may also be obtained through the National Student Clearinghouse website at www.studentclearinghouse.org. This service is available 24 hours a day, 7 days a week for a fee of $\$ 3$ per verification. Step by step instructions are available at http:// admissions.fullcoll.edu/verification.


## Academic Information

## Academic Honors

## Dean's Honor List

Students who officially complete (as shown on their transcript) 12 or more degree applicable units in a semester and earn a grade point average between 3.0 and 3.74 are placed on the Dean's Honor List.

## Honors at Graduation

Students whose cumulative grade point average (excluding non-degree credit courses) is 3.30 or higher will graduate with honors. High honors are awarded to those graduating with a cumulative grade point average (excluding non-degree credit courses) of 3.75 or higher. Spring grades will not be used in computing the grade point average for the graduation ceremony, but will be used in determining the final grade point average for the diploma. All transfer work from other colleges will be used in computing grade point average at graduation.

## President's Honor List

Students who officially complete (as shown on their transcript) 12 or more degree applicable units in a semester and earn a grade point average of 3.75 or above are placed on the President's Honor List.

## Acceptance of Transfer Credits

Evaluation of other college coursework must be requested by students through the Fullerton College Counseling Department. Students transferring from colleges accredited by the following recognized regional accrediting associations will be granted lower division credit for courses entered on official transcripts (MSA, NASC, NCA, NEASC-CIHE, SACS, WASC).

Students requesting credit for previous coursework from foreign colleges or universities must have their transcripts evaluated by an approved credential evaluation service. Students may only receive elective credit for up to 30 units of lower division coursework.

Transferring units will be posted at the time of graduation.

## Adding or Dropping a Class


#### Abstract

All adds, drops, and withdrawals are to be completed ONLINE through myGateway by the established deadline dates. If the student receives an Add Authorization Code from an instructor, it is the student's responsibility to process the add using myGateway on or before the deadline. Failure to do so will result in not being officially enrolled in the class.


A student will not be permitted to add a new full-term class after the end of the third week of school. For adding short-term courses (less than a semester in length) or late-start courses, the student should review the class schedule for published deadline dates.

## Section Change

A section change denotes dropping a course and replacing it by transferring to different hours, days, instructor for the same course and/or transferring from a lower to a higher OR a higher to a lower level course. Courses must meet within the same date range.

## Attendance

Regular and prompt attendance in class and laboratory sessions is expected of every Fullerton College student. Students, therefore, should be thoroughly informed of and should comply with the following attendance regulations:

Attendance at the first class meeting is advised because of enrollment demands. Any student not reporting to the first class may be dropped by the instructor. In the case where a class is taught entirely online, instructors may drop students who have not been in contact with the instructor by the end of the first day of classes for that semester or short-term session. However, it is the student's responsibility to officially drop the class. Do not rely on instructor to drop the class. Non-attendance does not constitute an official drop. Failure to officially withdraw may result in a failing grade.


#### Abstract

Absences By direction of the Chancellor of Community Colleges of California, attendance shall be taken at all class sessions. Absences are handled as follows:

After a student accumulates in any class more than a week's absences (more than the number of times the class meets per week), consecutive or nonconsecutive, an instructor may drop the student according to the drop deadline dates.

For online classes, an absence may be identified as a missed assignment and/or inactivity in the course site.


## Illness and Authorized Absences

1. If a student accumulates an excessive number of absences due to illness or other reasons, and the instructor feels that the student can no longer profitably continue in the course, the instructor may drop the student from class.
2. A student who must miss one or more classes because of a field trip or other authorized activity, such as athletics or music groups, may obtain an Authorized Absence Excuse from the instructor under whose supervision the activity will occur. The student shall have this excuse signed by the instructors of the classes that will be missed before the absence occurs. It is recommended that this form be completed at least two days before the activity. The signed excuse must be presented to the instructor in charge of the activity.
3. No absence excuses a student from making up the work missed. Students should realize that every absence may adversely affect their grades.
4. In the event a student is absent for a prolonged period of time, it is expected that the student will make contact with all instructors immediately to advise the instructor of this absence and the reasons behind it. The instructors can then decide whether or not the student may continue in the class or withdraw. It should be noted that failure to make this contact and follow through with the instructors could result in the student receiving a substandard grade in the class.

## STUDENT RESPONSIBILITY

While an instructor may drop a student who has poor attendance, it is the student's responsibility to officially drop the class. The student must log onto WebStar during its operating hours, access WebStar Registration and drop the class. Failure to officially withdraw from a class may result in a grade of "F," or "NP" being assigned.

## Audit Policy

Auditing of designated, approved college courses is permitted under specific conditions. Students may audit a designated course only if they have previously taken the course and received a passing grade and/or taken the course the maximum times allowable at Fullerton College.

An enrolled student choosing to audit a course must file a "Petition to Audit" form in the Admissions and Records Office no later than the add deadline of the course. Once the request has been made, students will not be permitted to change from an audit to a credit status.

Fees charged for auditing college courses are subject to change. See the Admissions and Records Office for current information. The fees per unit do not include the additional mandatory health fee. All students are strongly encouraged to purchase the campus photo ID card. All fees are payable at the time of submitting the petition. (Fees are not refundable.)

Audit petitions and procedures are available in the Admissions and Records Office.

## Classification of Students

Students are classified based on their class load as follows:

| Full-Time | Enrolled in 12 or more units |
| :--- | :--- |
| Part-Time | Enrolled in fewer than 12 units |
| Freshman | Fewer than 30 units completed |
| Sophomore | 30 or more units completed |

The minimum unit load to be classified as a full-time student is 12 units. A maximum load for any student is 19 units. A student may, with counselor's approval, carry a load of 20 or more units if, during the preceding semester, an average of at least 3.0 for each unit of credit in a total program of 12 or more units was earned.

It may be pertinent for students to consider the following semester unit requirements for particular privileges and activities:

Associated Students Elected Office: 9 units per semester
Athletic Eligibility: Full time: 12 units including P.E. classes
Veterans Benefits - Full time: 12 units per semester; 3/4 time: 9 units per semester; 1/2 time: 6 units per semester.

Work Study and Financial Aid - Full time: 12 units per semester; 3/4 time: 9 units per semester; 1/2 time: 6 units per semester.

## Work Hours/Class Guidelines

For each hour spent in class, a student should plan to spend about two hours a week in study and homework. Thus, a full load of 15 units plus study time may require 45 hours a week more than a full-time work week. Following are suggested work hours/class guidelines:

| WORKING HOURS/WEEK | UNITS |
| :---: | ---: |
| None | $12-16$ |
| 10 | $10-11$ |
| 20 | $7-9$ |
| 30 | $3-6$ |
| $30+$ | $1-3$ |

In order to maintain an academic balance, the following information should be considered:

1. Students can expect to spend at least three hours (one in class and two outside of class) per week for each unit taken.
2. Employment time and college time combined should not exceed 60 hours weekly.
3. Students should distribute study time appropriately for each class - often preparation for a lecture class differs from preparation for a laboratory class.
4. Students should consult frequently with their instructors their office hours are designed for that purpose.
5. To assist in their academic success, students should use the tutoring services, the library, counselors, and other support services.

## Course Progression

Students are expected to take courses on an accepted progressive basis. Students will not receive credit for classes which are considered lower in degree of advancement than those already completed.

## Course Repetition

## PASSING GRADE

A course in which a student has earned an "A," "B," "C," "CR" or " P " may only be repeated as indicated in the catalog. (Refer to the skills, performance, or activity section below)

Once a student has completed the maximum number of allowable repetitions, a student may be blocked from registering in this course. However a student may file a petition for an exception in the Admissions and Records Office. This petition must be approved before the student will be permitted to register.

## SUBSTANDARD GRADE

Beginning with the Fall 2008 semester, (pursuant to Title 5, Section 55042) students who have recorded a substandard grade of either "D," "F," "NC" or "NP" will be allowed to register to repeat the same course a maximum of 2 times within the college district. Students may file a Petition to Repeat a Course to request additional repeats due to verifiable extenuating circumstances. Petitions may be filed in the Admissions and Records Office.

When repeating a course with a substandard grade and submitting an Appeals Petition, the highest grade earned will count toward the grade point average and remaining grade(s) will be discounted or forgiven. The student's permanent academic record will be annotated such that all course work that has been taken and forgiven or repeated will remain legible, insuring a true and complete academic history. (Refer to Appeals Petition under College Policy and Rules)

## SKILL, PERFORMANCE, OR ACTIVITY

Courses that develop similar skills (a) at increasingly sophisticated levels of practice, and/or (b) that are applied to different content (such as a drama course in which students master increasingly demanding roles in different plays) may be offered as repeatable courses.

Each such repetition of a course must be designated to create a discernibly higher level of achievement such that the academic progress is clearly defined and the grading standards increase substantially with each repetition.

The course description will indicate whether a course may be repeated and the number of times it may be repeated.

A student may take the repeatable course for credit for up to 4 times or the number of times the college has specified.

Repetition of classes to meet legally mandated training requirements is allowed.

## RECENCY

Per section 55043 of the Education Code, "students may repeat a course due to a significant lapse of time." Students who believe they have extenuating circumstances may submit a Petition to Repeat a Course. Petition forms are available in the Admissions \& Records Office.

## WITHDRAWAL

Effective July 1, 2009, per Section 55042 of the Education code, students shall not be allowed to enroll in the same course in which they have previously received four "Withdrawals" within the college district.

## Credit By Examination

The basic purpose of Credit by Examination is to allow unit credit for prior or advanced knowledge of class material by the student. Currently enrolled students may be permitted to obtain Credit by Examination in subject matter fields in which they are especially qualified through previous training or experience for which credit or advanced placement has not previously been given. Only those courses approved for Credit by Examination will be eligible. Examinations will be sufficiently comprehensive to determine that the student has essentially the same knowledge and skills as a student who successfully completes the course.

## Credit by examination is available under the regulations listed below:

1. Any currently enrolled student not on academic probation may challenge a course subject to the approval of the division offering the course. Not all courses may be challenged. Divisions allowing credit by examination are Business and Computer Information Systems, Fine Arts, Natural Science (BIOL 101 F and BIOL 102 F only), and Technology and Engineering. Contact the appropriate Division Office for information.
2. A student may challenge and receive credit for a maximum of twelve semester units. EACH COURSE MAY BE CHALLENGED ONLY ONCE.
3. The student has the option of receiving an earned letter grade on the transcript for all challenged courses.
4. The division may stipulate that a grade of credit (CR) will be granted instead of a letter grade.
5. No student will be allowed to challenge a course less advanced than that which the student has already completed, and no challenge will be allowed for a course in which the student has previously enrolled and received a grade.
6. No challenge will be allowed for a course in which a student is enrolled after the first two weeks of the semester.
7. A student who has previously audited a course cannot earn credit by examination.
8. Resident students must pay enrollment and health fees; non-resident students must pay the enrollment fee, health fee, and non-resident per-unit tuition.
9. Students on fee waivers must pay the enrollment fees for credit by examination.
10. Credit will not be posted to the transcript until all fees, fines, or holds have been resolved.

## Procedure:

To initiate a petition for Credit by Examination, the student must confer with either an instructor teaching the course or the appropriate Division Dean. If it is determined that the student's prospects for success in the examination are satisfactory, the student will complete the Credit by Examination petition, obtaining the signatures of the instructor and the Division Dean. Petitions are available in the division offices. The time and place of the examination, its content, and the arrangement for its administration are determined by the division.

## Distance Education Online, Hybrid, TeleWeb

At Fullerton College, Distance Education courses are offered as an alternative method of learning. Distance Education courses provide students with quality instruction, while at the same time offering convenience and flexibility. Courses may be accessed on and off campus. Delivery options include:

Online - This is a course offered entirely or mostly online. Note: Some instructors also require coming to campus for orientation and/or testing.

Hybrid - This is a course that combines some percentage of class time online and some percentage of class time on campus.

TeleWeb - This is a course that combines cable television broadcasts, online technologies, and some campus attendance.

Students who take Distance Education courses are expected to be able to access and use email, be comfortable navigating the Internet, and use a computer that meets certain technical requirements. NOTE: Computers are available on campus for student use.

Transfer institutions generally accept Distance Education courses. However, students wishing to use an online, hybrid, or teleweb course for a specific transfer requirement should consult a counselor.

The registration process, fees, and academic credit are the same for Distance Education courses as for traditional on campus courses. To register, visit www.fullcoll.edu and click on myGateway. NOTE: Login required for myGateway may not be the same as login required for online courses.

For course specific information, refer to the class schedule available online at www.fullcoll.edu. For general information visit http://online.fullcoll.edu.

## Evening and Weekend College

The evening and weekend course offerings of the college provide an opportunity for students to pursue their education in the late afternoon, evenings, and on weekends. Requirements for most two-year vocational majors or for the lower-division transfer programs of most four-year colleges can be completed. The faculty is selected from the regular college staff and from highly qualified practitioners who are employed part time by the college to teach in their specialty.

Evening and weekend college classes are a part of the regular college program and carry the usual college credit for degree and residence purposes. Students may enroll in day or evening classes, or both, as their needs dictate. All evening and weekend classes are planned and supervised by the regular administrative staff of the college.

## Grading System

## Grades and Grade Point Average

Student performance in courses is indicated below. Grades which carry point value, and which are used in determining the grade point average (GPA), are as follows:

| Symbol | Definition | Grade Points Per Unit |
| :---: | :---: | :---: |
| A | Excellent | 4 |
| B | Good | 3 |
| C | Satisfactory | 2 |
| D | Passing, less than Satisfactory | 1 |
| F | Failing | 0 |
| The following are not part of the GPA computation: |  |  |
| P | Pass | at least satisfactory - units awarded not counted in GPA |
| NP | No Pass | less than satisfactory, or failing - units not counted in GPA |
| W | Withdrawal | No units granted |

The meaning of each symbol is as follows:
A - Superior or Excellent (4 grade points). Honor grade indicating excellence earned as a result of consistently superior examination scores; consistently accurate and prompt completion of assignments; ability to deal resourcefully with abstract ideas; superior mastery of pertinent skills; and promise of success in field relating to the subject.

B - Better than Average - Good (3 grade points). Honor grade indicating competence earned as a result of high examination scores; accurate and prompt completion of assignments; ability to deal well with abstract ideas; commendable mastery of pertinent skills; and promise of continued success in sequential courses.

C - Average - Satisfactory (2 grade points). Standard college grade indicating successful performance earned as a result of satisfactory examination scores; generally accurate and prompt completion of assignments; ability to deal with abstract ideas; average mastery of pertinent skills; and sufficient evidence of ability to warrant entering sequential courses.

D - Less than Satisfactory (1 grade point). Substandard grade indicating the meeting of minimum requirements only earned as a result of low examination scores; generally inaccurate, incomplete or late assignments; inadequate grasp of abstract ideas; barely acceptable mastery of pertinent skills; or insufficient evidence of ability to make advisable the enrollment in sequential courses.

F - Failing (no grade points). Non-passing grade indicating failure to meet minimum requirements earned as a result of non-passing examination scores; inaccurate, incomplete or late assignments; failure to cope with abstract ideas; inadequate mastery of pertinent skills; or repeated absence from class. "F" grades are figured in total units attempted in computing the grade point average.

## How to Calculate a GPA

1. Multiply the grade value of the course by the units attempted for that course. The product of this multiplication will be the grade points.
2. Divide the cumulative grade points by the cumulative units attempted.

Example:

| Course | Grade <br> Value | Multiply | Units <br> Attempted | Equals | Grade <br> Points |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MATH 100 F | $\mathrm{A}=4$ | x | 4 | $=$ | 16 |
| ENGL 060 F | $\mathrm{B}=3$ | x | 4 | $=$ | 12 |
| GEOG 100 F | $\mathrm{C}=2$ | x | 3 | $=$ | 6 |
| PE 130 F | $\mathrm{D}=1$ | x | 2 | $=$ | 2 |
| PHIL 100 F | $\mathrm{F}=0$ | x | 3 | $=$ | 0 |
|  |  | TOTALS: | $\mathbf{1 6}$ |  | $\mathbf{3 6}$ |

Divide 36 (Grade Points column) by 16 (Units Attempted column) and the G.P.A. $=2.25$

## Pass/No Pass Policy

Courses in which $\mathbf{P}$ (Pass)/NP (No Pass) grading is allowed are designated in the class schedule and in the course descriptions in this catalog. P/NP is not the same as auditing.
$\mathbf{P}$ - Pass is equivalent to the satisfactory grade of "C." "P" will award units completed, but will not be computed into the grade point average.

NP - No Pass is a substandard grade, equivalent to the grades of "D" or "F." "NP" grades will not be computed into the grade point average, but will enter into calculations for progress probation.

If a course is listed in the College Catalog as "Letter Grade or Pass/No Pass Option," a student choosing to take the course with a P/NP grade must file a "Pass/No Pass Grade Request" form in the Admissions and Records Office no later than the add deadline of the course. Once the request is submitted, the grading option is not reversible. Students may enroll in up to six units each semester in courses with a PASS/NO PASS option.

Students should investigate the policies of the institutions to which they may wish to transfer to determine the acceptability of $P$ (pass) grades in courses in the student's major, since many universities and colleges do not accept $P$ (pass) grades in such courses. Many institutions will consider an NP (No Pass) as a failing grade. Likewise, students planning for graduate work should realize that some graduate schools do not look favorably on P grades.

## Non Evaluative Grades

I - Incomplete. Incomplete academic work at the end of the term caused by unforeseeable, emergency and justifiable reasons may result in an "l" symbol being entered in the student's record. The condition of removal of the "l" and the grade to be assigned shall be stated by the instructor in a written record. This record must be given to the student with a copy on file with the Admissions and Records Office until the "l" 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 "l" symbol shall not be used in calculating units attempted nor for grade points.

A student may petition for a time extension due to unusual circumstances through the Admissions and Records Office. A student may not re-enroll in a class for which an "I" symbol is shown on the student's transcript.

IP — In Progress. The "IP" symbol shall be used to denote that the class extends beyond the normal end of an academic term. It indicates that work is "in progress," but that assignment of an evaluative grade must await its completion. The "IP" symbol shall remain on the student's transcript in order to satisfy enrollment documentation. An "IP" symbol shall not be used in calculating grade-point averages. The student must register in the same course for the next semester. Failure to do so will result in an assignment of a grade by the teacher in place of the "IP."

MW - Military Withdrawal. Upon verification of military orders, the symbol "MW" will be assigned to students who withdraw from courses. Military withdrawal shall not be counted in progress probation or dismissal calculations.

RD - Report Delayed. The "RD" symbol may be assigned by the Dean of Admissions and Records only. It is to be used when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student. It is a temporary notation to be replaced by a permanent symbol as soon as possible. "RD" shall not be used in calculating grade-point averages.

W - Withdrawal. A "W" is a grade indicated when the student has withdrawn from a course. It is not included in the grade point average computation. (See "Withdrawal Policy.")

## Assignment of Grades

The final grade is wholly within the responsibility of the instructor, regardless of whether it is an A, B, C, D, F, P, NP, or I.

Please Note: In a number of courses, principally in English, foreign languages, science and mathematics, a student may not progress to a more advanced study in a subject in which the student has received a "D" grade.

## Non-Degree Credit Courses

Non-degree credit courses are courses that earn credit, but are not counted toward the 60 units required for the associate degree. Non-degree courses are intended to assist students in performing the skills needed for college level courses. Nondegree courses do apply toward residency, athletic eligibility, work study and financial aid, veterans benefits, associated student body office, and full-time status. The degree or non-degree credit status is indicated at the end of every course description.

## Honors Program

## College Center, Room 225, 2nd Floor

The Fullerton College Honors Program is designed to meet the needs of students who seek a challenging educational experience that goes beyond the regular degree program. The Honors Program incorporates a stimulating interdisciplinary approach for a more in-depth investigation of topics. Classes are kept intentionally small (20-25 students) to facilitate the discussion/seminar rather than lecture format. A reduced class size also encourages a more collaborative learning experience where students from different backgrounds and disciplines can interact more freely with each other and with the faculty members who teach these courses. The holistic approach of Honors instruction strives to develop social and leadership skills in addition to intellectual and academic abilities. Towards this end, students enrolled in Honors courses will participate in field trips, social events, and leadership training. Other Honors activities include an Honors lecture series and the opportunity to attend regional and national Honors conferences.

Honors students are eligible for many other benefits. These include eligibility for special scholarships at Fullerton College and the opportunity to apply for Honors scholarships at fouryear transfer institutions. Honors students may also apply to the Collegiate Honors Council. Honors students will have Honors sections designated on their transcripts, and students who complete the Honors Program requirements will have a special designation on their transcripts and degrees. Students in the Honors Program will also be eligible for priority and/or guaranteed transfer in their major to selected colleges and universities. For further information and application forms, please contact the Honors Program at Fullerton College at (714) 992-7370 or visit our website at http://honors.fullcoll.edu.

## Learning Communities

Learning Communities are classes that work together and often use common themes, readings and assignments. Classes often meet General Education and transfer requirements. Instructors work closely together so learning becomes relevant and fun. Students learn in a friendly and supportive environment that promotes success.

## Remedial Limitation

The State of California has implemented a regulation limiting the number of units students can earn for remedial/ pre-collegiate basic skills courses to 30 semester units. In accordance with those guidelines, the North Orange County Community College District has established the following policy (AB 1725 Chapter 973, Statutes of 1988).

## Basic Skills Courses

Basic skills courses are defined as one or more levels below college level English and one or more levels below intermediate algebra. The North Orange County Community College District has designated certain courses as remedial/pre-collegiate basic skills courses. These courses include reading, writing, computation, learning skills, and study skills designed to ensure acquisition of those skills necessary for successful completion of associate degree, transfer and occupational courses. Fullerton College lists the following as its Basic Skills courses: ENGL 039 F, ENGL 059 F, ENGL 060 F, ESL 025 F, ESL 029 F, ESL 035 F, ESL 036 F, ESL 038 F, ESL 039 F, ESL 045 F, ESL 046 F, ESL 047 F, ESL 048 F, ESL 049 F, ESL 050 F, ESL 056 F, ESL 058 F, ESL 080 F, ESL 081 F, ESL 082 F, ESL 083 F, MATH 004 F, MATH 006 F, MATH 010 F, MATH 015 F, MATH 020 F, MATH 030 F, READ 027 F, READ 036 F, READ 056 F, READ 096 F, STSV 071 F, STSV 072 F, STSV 075 F.

## Exemptions

All remedial courses taken by students enrolled in English as a Second Language courses are exempted. Students identified by the District for learning disabled programs are also exempted. When, because of closed enrollment, students are unable to enroll in the next higher level ESL course, they do not lose their exemption status. Students with documented disabilities may petition the Admissions and Records Office for exemption status on a case-by-case basis.

## Review and Release of Information


#### Abstract

All student records of Fullerton College are maintained in accordance with the provisions of the Family Rights and Privacy Act of 1974. Copies of the complete text of this act are available in most libraries (see "Family Educational and Privacy Rights" in Shepherd's Acts and Cases by Popular Names). The two basic elements of the Act are the student's right to review and challenge his/her record and the conditions under which information in the record can be released to outside parties.


1. Students may request access to challenge the correctness or appropriateness of any part of the record. However, students are advised that grades, though a part of the record, are considered final as assigned by the instructor and can only be challenged on the basis of clerical error, fraud, bad faith, or incompetence. Refer to Grade Changes for additional information.

Students requesting to review their own records must present proper photo identification.
2. Student information (except for directory information) cannot be released without signed permission of the student. However, student information will be released to those legally entitled to access under this Act. Directory information may include student's name, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degees and awards received, the most previous public or private school attended by the student, and any other information authorized in writing by the student. (NOCCCD BP 5040 effective April 2009)

Additionally, under the Solomon Amendment, all branches of the United States Armed Forces may request telephone numbers and addresses of all students age 18 to 35 for recruitment purposes.

Currently enrolled students may request the information listed above be kept confidential. A "Notice to Deny Disclosure of Personal Information" must be filed in the Admissions and Records Office within the first two weeks of the semester. In the absence of having this form on file, the college may release information to any person or agency requesting such information.
3. The law requires consent of the student or a court order before the District may release student records. When student records are subpoenaed, the student will be notified by mail to the last address on file of any such access, and the student shall have the right to request a copy of any information released in this manner.
4. Any questions regarding the student's rights under this act should be directed to the Dean of Admissions and Records.

## Study Abroad

The Study Abroad Program provides students with opportunities to enrich their educational experiences by studying abroad for a semester or a summer term, depending on the program, while receiving Fullerton College units. The program normally offers only courses that can be enriched by the foreign environment. In addition, students gain a multicultural experience by living in a society that is different from that of the United States.

Fullerton College works jointly with Cypress College of the North Orange County Community College District in offering this program. On several occasions Fullerton and Cypress have cooperated with other community college districts in the Study Abroad locations.

The foreign locations and the courses offered vary from semester to semester. Over the past decade Fullerton College has offered courses in Costa Rica, Great Britain, France, Italy, Austria, Spain, Australia, Ireland and the Czech Republic. The program in Cambridge, England has been repeated six times since its inception in 1986.

The courses offered in this program are Fullerton and Cypress courses, most of which meet degree and transfer requirements, either as general education courses or elective units. Fullerton and Cypress faculty teach most of these courses, although the program sometimes employs local instructors who teach these courses according to the colleges' course outlines.

There is an application process for interested students, beginning early in the semester prior to departure to the foreign location. For further information, call 714-992-7145 or visit the website: http://studyabroad.fullcoll.edu.

## Tests/Exams

Class instruction includes frequent examinations throughout the semester so that students can judge their progress. Final examinations are required in all courses as a requirement for credit in the course.

## Wait Time for Late Instructors

Instructors are to include on their course syllabi or to notify their students at the first class meeting that if, due to unforeseen emergencies, the instructor does not arrive at the scheduled start time for class, students are to remain in class for fifteen minutes (unless otherwise notified by the division). If they do not receive notification to wait for their instructor to arrive, after fifteen minutes the students may leave with no penalty for absence or assigned work due for that class meeting.

## Withdrawal Policy

For the purpose of this policy, a "W" is viewed as an indication that the student has withdrawn from a course without affecting the student's grade point average. Failure to officially withdraw by the established deadline date may result in the assignment of an "F" grade for the course.

## Instructor Initiated

Through $75 \%$ of the course, a student may be withdrawn if no longer participating in the course. Definitions of nonparticipation shall include, but are not limited to, excessive unexcused absences. Refer to the Attendance Policy for additional information.

## Student Initiated

STUDENT RESPONSIBILITY - While an instructor officially may withdraw a student who has poor attendance, it is the student's responsibility to withdraw if the student does not continue in attendance. All student withdrawals are to be completed ONLINE through myGateway by the established deadline date. Failure to do so may result in the student receiving a failing grade.

## Recording on Transcripts

No "W" shall be recorded on the student's transcript when withdrawing from a course according to the following guidelines:
A. Full Term Courses: withdrawal prior to the fourth week of the term.
B. Short Term Courses (meeting less than the full term length): withdrawal by the $20 \%$ point of the length of the course.

A "W" will be recorded on the student's transcript when withdrawing from a course according to the following guidelines:
A. Semester Length Courses: withdrawal during the fourth week through the fourteenth week of the semester.
B. Short Term Courses (courses less than a semester in length): withdrawal after the $20 \%$ point through $75 \%$ point of the course.

## Military Withdrawal

Students called to military service during a semester in progress should contact the Admissions and Records Office to have a "MW" (military withdrawal) noted on their academic transcript. A copy of military orders are required.

## College Policies and Rules

## Academic Honesty

Students are expected to abide by ethical standards in preparing and presenting material which demonstrates their level of knowledge and which is used to determine grades. Such standards are founded on basic concepts of integrity and honesty. These include, but are not limited to, the following areas:

1. Students shall not plagiarize, which is defined as
A. stealing or passing off as one's own the ideas or words of another, or
B. using a creative production without crediting the source.

The following cases constitute plagiarism:

- paraphrasing published material without acknowledging the source,
- making significant use of an idea or a particular arrangement of ideas, e.g., outlines,
- writing a paper after consultation with persons who provide suitable ideas and incorporating these ideas into the paper without acknowledgment, or
- submitting under one's own name term papers or other reports which have been prepared by others.

2. Students shall not cheat, which is defined as
A. using notes, aids, or the help of other students on tests or exams in ways other than those expressly permitted by the instructor, or
B. misreporting or altering the data in laboratory or research projects involving the collection of data.
3. Students shall not furnish materials or information in order to enable another student to plagiarize or cheat.

Instructors may deal with academic dishonesty in one or more of the following ways:

1. Assign an appropriate academic penalty such as an oral reprimand or point reduction.
2. Assign an "F" on all or part of a particular paper, project, or exam.
3. Report to the appropriate administrators, with notification of same to the student(s), for disciplinary action by the College. Such a report will be accompanied by supporting evidence and documentation.

See Student Conduct for additional information.

## Academic Renewal Policy

The Academic Renewal Procedure (51318, California Administrative Code) permits the alleviation of a student's previouslyrecorded substandard academic performance which is not reflective of the student's present demonstrated ability and level of performance. As a consequence, Academic Renewal may gain for students the benefits of their current level of ability and performance and not permanently penalize them for poor performance in the past.

Therefore, within the regulations listed, Fullerton College may disregard particular previously recorded substandard work from a student's cumulative grade point average.

The regulations for course alleviation follow:

1. Only units taken at Fullerton College may be alleviated, not units taken from another college(s). The maximum number of units that may be alleviated is 24 .
2. A minimum of twelve (12) units must be completed at any accredited college or university, with a grade point average of 2.5 in all units since the last semester of requested renewal.
3. A minimum of 12 months must have elapsed since the most recent coursework to be alleviated was recorded.
4. Courses that meet the present educational goals of the students and are appropriate for repetition may be exempt from consideration for alleviation.
5. Courses used in awarding an Associate Degree cannot be alleviated.
6. A student may be granted academic renewal only once and is irreversible once posted to the transcript.
7. Academic renewal by Fullerton College does not guarantee that other institutions outside the District will approve such action. This determination will be made by the respective transfer institutions.
8. Only substandard grades (D, F, NP) can be alleviated.

## Application for Academic Renewal:

To apply for Academic Renewal, students must complete the petition form in the Admissions and Records Office. Official transcripts of all academic work (from all accredited schools) must be on file in the Admissions and Records Office at the time of request for Academic Renewal.

## Recording of Academic Renewal:

When academic work is alleviated, grades are not removed. They are noted and subtracted from the grade point average. All entries remain legible so that a true and complete record is maintained. There is no assurance that alleviated courses will be treated similarly by other educational institutions outside the District.

## Children on Campus

Children are not allowed on campus unless supervised by a parent or guardian. Children may not attend classes or computer labs (unless the course is specifically designed to include children). Children must be supervised so educational activities are not interrupted and may not be left unattended in common areas such as the library, student center, food services area, quad or college parking lots.

## Drug-Free Environment

It is the policy of the North Orange County Community College District to provide a drug-free educational, employment, and business environment. The unlawful manufacture, distribution, dispensing, possession, or use of alcohol or any controlled substance is prohibited on District property during Districtsponsored field trips, activities, or workshops, and in any facility or vehicle operated by the District. Any student who violates this policy will be subject to disciplinary action, which may include suspension, expulsion, and referral for prosecution. Information regarding the District's Drug-Free Environment Policy may be obtained by contacting the campus Office of the Vice President (714) 992-5386 or the Office of the District Director of Human Resources at (714) 808-4818.

## Compliance for Employees

The District intends to make every effort to provide and maintain a drug-free workplace. Pursuant to the Drug-Free Schools and Communities Act Amendments of 1989, it is unlawful to manufacture, distribute, dispense, possess, use or sell illicit drugs and alcohol in all buildings, property, facilities, service areas and satellite centers of the district. Any employee violating this policy will be subject to disciplinary action, which may include termination. Any employee convicted under a criminal drug and/or alcohol statute for conduct in the workplace or while on District business must report this conviction within five (5) calendar days to the Vice Chancellor, Human Resources.

## Compliance for Students

The District intends to make every effort to provide and maintain a drug-free campus. Pursuant to the Drug-Free Schools and Communities Act Amendments of 1989, it is unlawful to manufacture, distribute, dispense, possess, use or sell illicit drugs and alcohol in all buildings, property, facilities, service areas and satellite centers of the District. All students are required to comply with this policy as a condition of their continued enrollment. Any student violating this policy will be subject to disciplinary action, including suspension, and up to expulsion.

Legal Sanctions Under Federal, State and Local Laws are available in the following locations:

1. Student Affairs Office, Building 200, Room 223
2. Campus Safety Department, 1500 Building

## Alcohol/Drug Abuse Counseling, Treatment, Rehabilitation Information

Referral information and Social Service Directories for Orange, Los Angeles, and San Bernardino Counties are available for students in the College's Student Health Center.

## Electronic Devices

The use of radios, electronic recording devices, CD players, iPODs, or MP3 players without headphones is prohibited on campus except in connection with approved campus/classroom activities. NOTE: Electronic recording devices may not be used in classrooms without the permission of the instructor.

## Grade Appeal Process

The College recognizes the legal right of faculty to set standards of performance and to apply them to individual students. Therefore, the instructor is the final authority in determining grades that are assigned to students and that appear in their permanent academic records. Students have a right to inquire how their grade was determined. Students have the right to have someone accompany them throughout the process. The following procedures apply to changes of grades except for changes of Incomplete (I) and Withdrawal (W) grades.

1. In general, all course grades are final when filed by the instructor in the end-of-term course grade report. Students have access to their end-of-term grades. These grades become a part of the official record.
2. Students have the right to formally appeal the final grade in a course. Students have the right to have someone accompany them throughout the process. As per California Education Code Section 476224(a), when grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistakes, fraud, bad faith, or incompetency, shall be final. Appeals are limited to situations in which the student believes the grade is prejudicially, capriciously, or arbitrarily assigned.
3. A request for grade change should be initiated by the student within the next regular semester, but no later than two years, following the award of the original grade. If the instructor determines that there is a valid basis for the change, a Request for Grade Change form shall be completed by the instructor in the Admissions and Records Office.
4. If the instructor determines there is not a valid basis for the change and denies the student's request, the student may proceed to the appeals process described below. Prior to being accepted by the Office of Admissions and Records, the Change of Grade form shall be completed and signed by the instructor, noting the basis for the change, and approved by the division dean.

Appeal form must be directed to the instructor of the course and a signed copy maintained by student. If further action is necessary, the student should present the written complaint to the Division Dean, and if necessary, the Vice President of Instruction. (Students are referred to the college's Student Complaint Procedures as stated in the catalog and available at division offices.) Once the grade change request has entered the formal process, it cannot be resolved informally.

## Nondiscrimination Statement

It is the policy of the North Orange County Community College District to provide an educational, employment, and business environment in which no person shall be unlawfully subjected to discrimination or sexual harassment, nor unlawfully denied full and equal access to the benefits of District programs or activities on the basis of ethnic group identification, national origin, religion, age, gender, race, color, ancestry, sexual orientation, marital status, or physical or mental disability as defined and prohibited by state and federal statutes. Any student who engages in unlawful discrimination or sexual harassment in violation of this policy will be subject to disciplinary action, which may include suspension or expulsion.

Students who believe they have been subjected to unlawful discrimination, including sexual harassment, or who seek information regarding the District's Unlawful Discrimination Policy, should contact the Office of the District Director of Human Resources at (714) 808-4818 or the Office of Equity and Diversity at (714) 808-4819.

The following person is designated by the North Orange County Community College District as the Responsible Officer/Section 504 and Title IX Coordinator for receiving and coordinating the investigation of all unlawful discrimination complaints filed pursuant to section 59328 of Title 5 of the California Code of Regulations, and for coordinating compliance with section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990, Title IX of the Education Amendments of 1992, and response to discrimination complaints related thereto:

Name:
Position: Vice Chancellor, Human Resources
Address: $\quad 1830$ W. Romneya Drive Anaheim, CA 92801-1819
Telephone: (714) 808-4822

## Victims of Sexual Assault

Students who are victims of sexual assault occurring on District property or on an off-campus site or facility maintained by the District, or who seek information or assistance regarding a sexual assault, should contact the campus Director of Health Services at (714) 992-7093 or the Director of Campus Public Safety at (714) 992-7080. Except as may otherwise be required by law, all inquiries will be maintained in confidence.

## Afirmación Sobre No Discriminación

Las normas generales del North Orange County Community College District proveen un entorno educacional, laboral y comercial en el que ninguna persona es expuesta a la discriminación ni al acoso u hostigamiento sexual, como tampoco a ninguna vejación castigada por la ley, ni a negarle, contrario a la ley, acceso total y equitativo a los beneficios y actividades de los programas del Distrito, debido al grupo étnico al cual pertenece, nacionalidad de origen, religión, edad, género, raza, color, ancestros, inclinaciones sexuales, estado civil, o discapacidad física o mental, tal como lo definen y prohíben los estatutos estatales y federales. Todo estudiante que discrimine, acose u hostigue ilegalmente a otra persona, en contravención de las normas generales, quedará sujeto a que se tomen medidas disciplinarias contra esa persona, lo cual puede incluir suspensión o expulsión de este centro educacional.

Todo estudiante que crea ha sido objeto de discriminación ilícita, incluyendo acoso u hostigamiento, o que desee obtener información con respecto a las Normas Generales del Distrito sobre Discriminación llícita (District's Unlawful Discrimination Policy), debe comunicarse con la oficina del Director Distrital de Recursos Humanos (714) 808-4818 o la oficina de Equidad y Diversided (714) 808-4819.

La persona que mencionamos más adelante, ha sido designada por el North Orange County Community College District, como el Funcionario Responsable/Coordinador de la Sección 504/Derecho IX, ante quien se debe presentar la información para coordinar la investigación de todas las quejas de discriminación ilegal interpuestas, conforme a lo estipulado en la sección 59328 del Derecho 5 de las Reglamentaciones del Código de California, y para coordinar el acatamiento de la Sección 504 del Decreto de Rehabilitación de 1973 y del Derecho II del Decretote 1990 que ampara a los Americanos con Discapacidades, Derecho IX de las enmiendas de la educación de 1992, y responder a las quejas por discriminación relacionada:
Nombre: Jeffrey O. Horsley
Posición: Vice Chancellor, Human Resources
Dirección: 1830 W. Romneya Drive
Anaheim, CA 92801-1819
Teléfono: (714) 808-4822

## Victimas del Acoso u Hostigamiento Sexual

Aquellos estudiantes que sean víctimas de asalto sexual dentro del predio del Distrito o en algún sitio fuera del terreno o establecimiento universitario, bajo la responsabilidad del Distrito, o que busque información o ayuda con respecto a un asalto sexual, debe comunicarse con el Director de Servicios de Salubridad, llamando al teléfono: (714) 992-7093, o con el Director de la Seguridad Pública del Terreno Universitario, llamando al (714) 992-7080. Excepto como de alguna otra manera lo exija la ley, toda pregunta e información se mantendrá en la más estricta confidencialidad.

## Parking

All vehicles parking on campus must display a current parking permit or daily park-ur-self receipt on the lower driver side windshield facing outward with the number of the permit clearly visible. Daily parking permits are available from the yellow vending machines available in designated parking lots or at the Campus Safety Office.

## Medical Parking

Purchase a student parking sticker at the time of registration. If you have a DMV placard, you must display both the placard and a student parking sticker. If you do not have a DMV placard, you need to bring your student parking sticker to the Campus Safety Office (Building 1500) along with a medical verification of your physical disability. They will assign you medical parking and provide you with information regarding where to park on campus.

Do not park in carpool slots or specially reserved spots. If you receive medical parking for a temporary physical disability, you will be required to provide a doctor's note that includes exact dates. We encourage students to use alternate transportation methods - such as walking, riding bicycles to/from school, carpooling, or using public transportation - to reduce parking congestion and pollution and to help conserve energy. Skateboarding, skating and bike riding are prohibited on campus grounds.

Further parking information is available by contacting the Campus Safety Department at (714) 992-7080.

## Petitions and Appeals

Petitions for extenuating circumstances and general appeals that relate to policies on admissions, readmission after academic dismissal, graduation requirements, grades and credit, repetition of courses, academic renewal, or withdrawals, etc., should be directed to the Admissions and Records Office. The Academic Standards Committee convenes monthly to review petitions.

## Appeals Petition (Request to Exclude "D," "F," or "NP" Grades)

If a student previously received a "D," "F," "NC" or "NP" in a course taken at Fullerton College, and repeats the same course and earns a higher letter grade, the student may file an Appeals Petition (Request to Exclude "D," "F," "NC" or "NP" Grades). On repetition, the highest grade earned will count toward the grade point average and the remaining grade(s) will be discounted or forgiven. The student's permanent academic record will be annotated such that all course work that has been taken and forgiven or repeated will remain legible, insuring a true and complete academic history. The former grade(s) are not removed from the permanent record, but are noted and subtracted from the cumulative grade point average. (The college can provide no assurance that repeated courses will be treated in this way by other institutions.) This policy is retroactive and applies to identical courses taken at Fullerton College or at another regionally accredited college without any limitation as to the number of courses that can be repeated for this purpose. Appeals Petition (Request to exclude "D," "F," "NC" or "NP" Grades) can be obtained in the Admissions and Records Office.

## Probation and Dismissal Policy

In accordance with State regulations, the following probation and dismissal policy has been established. The primary purpose is to assure that a student is making progress toward an educational objective and to alert the student and the student's counselor to the possible need for additional counseling and/or special services.

## Placement on Probation

A. Academic Probation. A student who has attempted at least 12 semester units at the college shall be placed on academic probation if the student has earned a cumulative grade point average below 2.0 in all units taken at the college.
B. Progress Probation. A student who has enrolled in a total of at least 12 semester units at the college shall be placed on progress probation when the student receives grades of "W," "I," or "NP" in a total of $50 \%$ or more of all units for which the student has enrolled at the college.

## Removal from Probation

A. Academic Probation. A student shall be removed from academic probation when the student's cumulative grade point average in all units completed at the College is 2.0 or higher.
B. Progress Probation. A student on progress probation shall be removed from probation when the percentage of units in the "W," "I," or "NP" category drops below $50 \%$ of all units for which the student has enrolled at the college.

## Standards for Dismissal

A. Academic Dismissal. A student who has been placed on academic probation and earned a cumulative grade point average of 1.75 or lower in two consecutive semesters will be subject to scholastic dismissal.
B. Progress Dismissal. A student who has been placed on progress probation for two consecutive semesters shall be subject to scholastic dismissal.

For purposes of "A" and "B" above, consecutive semesters shall exclude the summer session. The college shall make a reasonable effort to notify a student who is subject to academic and progress dismissal no later than the start of the fall semester each year.

A student on probation who registers for the next term will be considered a "conditional registrant." Students are notified by mail when placed on probation or dismissed. Scholastic dismissal will be noted on the student's transcript.

## Re-Admission

A continuing student who has been dismissed because of either poor academic achievement or poor progress may be considered for re-admission provided the student files a Petition for Re-admission at the Admissions and Records Office. Petitions for re-admission are available in the Admissions and Records Office. After the petition is reviewed by the Academic Standards Committee, the student will be notified by email of the decision.

A student who is readmitted will be placed on a probationary status and shall be required to maintain a cumulative grade point average greater than 1.75 and a semester grade point average of 2.00 . Failure to maintain the required probationary grade point average after re-admission from dismissal may lead to permanent dismissal from the College. Please note: If student is placed on academic or progress probation, the student will be dismissed the next semester if he/she does not follow the guidelines for being removed from Probation as stated above.

## Smoking on Campus

Fullerton College is a smoke-free campus. (NOCCCD AP 3570, based on Government Code 7697)

## Standards of Student Conduct and Discipline Policy

The standards of student conduct and disciplinary action for violation of Board Policy 5500 were approved by the NOCCCD Board on January 28, 2003, were revised on October 23, 2007, and were drawn in compliance with Sections 66300, 66301, 760303, 76033, 76034 and 76036 of the State Education Code.

Students are expected to respect and obey civil and criminal law and shall be subject to the legal penalties for violation of the city, county, state, and national law(s).

Student conduct must conform to Board Policy and college regulations and procedures. As cited in BP5500, "A student who violates the standards of student conduct shall be subject to disciplinary action including, but not limited to, the removal, suspension or expulsion of the student." Misconduct, which constitutes "good cause" for disciplinary action includes, but is not limited to, the following:

1. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, the open and persistent defiance of the authority of, or persistent abuse of, District personnel, or violating the rights of other students.
2. Failure to identify oneself when requested to do so by District officials acting in the performance of their duties.
3. Cheating, plagiarism in connection with an academic program (including plagiarism in a student publication), or engaging in other academic dishonesty.
4. Dishonesty, forgery, alteration, or misuse of District documents, records, or identification, or knowingly furnishing false information to the District.
5. Misrepresentation of oneself or of an organization to be an agent of the District.
6. Causing, attempting to cause, or threatening to cause physical injury or physical or verbal abuse or any threat of force or violence, to the person, property, or family of any member of the college community, whether on or off District property as defined above.
7. Willful misconduct which results in injury or death to a student or to District personnel, or which results in the cutting, defacing, or other damage to any real or personal property of the District.
8. Unauthorized entry into, unauthorized use of, or misuse of property of the District.
9. Stealing or attempting to steal District property or private property on District premises, or knowingly receiving stolen District property or stolen private property on District premises.
10. Causing or attempting to cause damage to District property, or to private property on North Orange County Community College District.
11. Unlawful use, sale, possession, offer to sell, furnishing, or being under the influence of any controlled substance listed in the California Health and Safety Code, section 11053 et seq., an alcoholic beverage, or an intoxicant of any kind, or any poison classified as such by Schedule D in Section 4160 of the Business and Professions Code or other State law defining controlled substance while on District property, or at a District function; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in the California Health and Safety Code, section 11014.5.
12. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the District.
13. Possession, sale, use, or otherwise furnishing of explosives, dangerous chemicals, deadly weapons or other dangerous object including, but not limited to, any facsimile firearm, knife or explosive on District property, or at a District function, without prior written authorization of the Chancellor, college president, School of Continuing Education Provost, or authorized designee.
14. Engaging in lewd, indecent, or obscene behavior on District property, or at a District function.
15. Violation of municipal, state, or federal laws in connection with attendance in programs or services offered by the District, or while on District property or at District-sponsored activities.
16. Soliciting or assisting another to do any act (including the purchasing, transporting or consumption of any controlled substance), while under the supervision of a District official, which would subject a student to expulsion, suspension, probation, or other discipline pursuant to this policy.
17. Attempting any act constituting cause for disciplinary action as identified in the above sections of this policy.
18. Committing sexual harassment as defined by law or by District policies and procedures.
19. Engaging in harassing or discriminatory behavior based on race, sex (i.e., gender), religion, age, national origin, disability, sexual orientation, or any other status protected by law.
20. Engaging in physical or verbal intimidation or harassment of such severity or pervasiveness as to have the purpose or effect of unreasonably interfering with a student's academic performance, or District employee's work performance, or of creating an intimidating, hostile or offensive educational or work environment.
21. Engaging in physical or verbal disruption of instructional or student services activities, administrative procedures, public service functions, authorized curricular or co-curricular activities or prevention of authorized guests from carrying out the purpose for which they are on District property.
22. Stalking, defined as a pattern of conduct by a student with intent to follow, alarm, or harass another person, and which causes that person to reasonably fear for his or her safety, and where the student has persisted in the pattern of conduct after the person has demanded that the student cease the pattern of conduct. Violation of a restraining order shall, without more, constitute stalking under this policy.
23. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct or where the presence of the student causes a continuing danger to the physical safety of students or others.
24. Engaging in expression which is obscene, libelous, or slanderous according to current legal standards, or which so incites students as to create a clear and present danger of the commission of unlawful acts on District property, or the violation of the lawful administrative procedures of the District, or the substantial disruption of the orderly operation of the District.
25. Use of the District's computer systems or electronic communication systems and services for any purpose prohibited by Administrative Procedure 3720, Computer \& Electronic Communication Systems, or for any act constituting cause for disciplinary action as provided in this policy.

Furthermore, no student shall be suspended from a college or School of Continuing Education program or expelled unless the conduct for which the student is disciplined is related to college, School of Continuing Education or District activity or attendance. Any violation of law, ordinance, regulation or rule regulating, or pertaining to, the parking of vehicles, shall not be cause for removal, suspension, or expulsion of a student.

The Chancellor shall establish procedures for the imposition of discipline on students in accordance with the requirements for due process of law. The procedures shall identify potential disciplinary actions including, but not limited to, the removal, suspension or expulsion of a student.

The Chancellor shall establish procedures by which all students are informed of the rules and regulations governing student behavior.

## Summary Suspension

When serious violations of college regulation or procedures occur as a result of inappropriate student conduct, the college shall take immediate action (summary suspension) to resolve the problem. The action may occur as follows:

1. Removal from Class - the involuntary removal of a student from class by an instructor for a maximum period of two consecutive class sessions.
2. Removal from Facility - the involuntary removal of a student by an administrator from a District or College facility, or facility under the control of the District or College for a maximum period of two consecutive days.
3. Withdrawal of Consent to Remain on Campus - withdrawal of consent by the President or the President's designee for a student or other person to remain on a College campus in accordance with California Penal Code section 626.4 where the College President has reasonable cause to believe that the student has willfully disrupted the orderly operation of the campus.

## Definitions:

1. Expulsion - The involuntary removal of a student from the District and all District programs for one or more terms, or permanently, by action of the Board of Trustees.
2. Formal Hearing - A hearing conducted before a hearing officer or hearing panel in accordance with administrative procedures during which the student and the District may call and examine witnesses and present documentary evidence.
3. Formal Complaint - This procedure is recommended for general serious or ongoing complaints or concerns regarding Fullerton College faculty, staff, services, instruction and/or classes. Any and all should be addressed as soon as the issue arises. Grade appeals follow the Grade Appeal Process. The student should refer to the Fullerton College Catalog for the specific processes for these exceptions: student-to-student conduct, grade appeal and sexual harassment.
4. Informal Hearing - A meeting between the student and the Student Discipline Officer or designee in accordance with administrative procedures to discuss the charges and provide the student with the opportunity to respond to the charges orally, or in writing.
5. Informal Complaint - Informal concerns of a non-serious nature may be reported to the appropriate Dean. Such complaints will be reviewed and considered; however, no formal response will be provided.
6. Suspension - The involuntary removal of a student for good cause from one or more classes or from the college by the President or designee for a limited period of time, which can be short-term or long-term suspension (up to ten consecutive days).
7. Removal from Class - The involuntary removal of a student from class by an Instructor for a maximum period of two consecutive class sessions.
8. Removal from Facility - The involuntary removal of a student by an administrator from a District or College facility, or facility under the control of the District or College, for a maximum period of two consecutive days.
9. Disciplinary Probation - A status between good standing and suspension or expulsion. It covers a stated trial period and disciplinary conditions required of the student. At the end of the trial period, it shall be determined, based on whether or not the probationary conditions have been met, if the student is to be returned to good standing, suspended, recommended for expulsion, or subject to other disciplinary action.
10. Loss of Privileges - Disciplinary action involving the loss of certain student privileges, such as eligibility to participate in extracurricular activities, for a stated period of time.
11. Formal Reprimand - Written admonition or warning to cease and desist from conduct that has been determined to violate the standards of student conduct. A formal reprimand becomes part of a student's permanent record and is considered in the event of future violations of the standards of student conduct.
12. Informal Reprimand - An oral admonition or warning to cease and desist from conduct that has been determined to violate the standards of student conduct. A record of the fact that an informal reprimand has been issued may be retained as part of a student's record for a period of up to one year and is considered in the event of future violations of the standards of student conduct during the period of retention. It is the student's responsibility to request that the record be removed upon expiration of the period of retention.
13. Withdrawal of Consent to Remain on Campus - Withdrawal of consent by the President or the President's designee for a student or other person to remain on a College campus in accordance with California Penal Code section 626.4 where the College President has reasonable cause to believe that the student has willfully disrupted the orderly operation of the campus.

## Procedures:

## Informal

The student shall resolve the issue directly with the faculty or staff member directly involved. If a student is uncomfortable speaking to the faculty or staff member, they have the right to have someone accompany them throughout the process.

## Formal

1. It is the student's responsibility to initiate the process. The college has a legal responsibility to deal directly with the student. Forms will be available in Division Offices.
2. Student should set up an appointment with the appropriate Dean or Director and submit the designated Complaint form.
3. If the student feels the issue is not resolved or if the complaint concerns the Dean or Director, the student can ultimately contact Fullerton College's Vice President of Student Services or the Vice President of Instruction. Both offices are located on the first floor of the 100 building.
4. The student will be notified in writing after each formal step using the Student Complaint form available in Division Offices.

## Student Right-to-Know Act and Campus Security Act

Student Right-to-Know (SRTK) is a federally-mandated public disclosure of specific college-related information, as per the U.S. Code of Federal Regulations (CFR): Title 34 - Part 668. The following highlights are sub-sections of the two basic laws that mandate specific college information:

## CFR: Title 34 - Part 668.46: Information on Completion or Graduation Rates

The college completion rates or graduation rates (including transfer rates and student athlete rates - Part 668.49) will be made accessible to the public. The rates are derived from yearly IPEDS - Graduation Rate Survey submissions and are currently coordinated through the California Community College Chancellor's Office under the terms of the "Student Right-toKnow Subscription Agreement." SRTK rates are based upon approximately three percent (3\%) of the student population.

## CFR: Title 34 - Part 668.47: Institutional Security Policies and Crime Statistics

Public Law 101-542: The Higher Education Act of 1965 was amended via the current Student Right-to-Know and Campus Security Act through Public Laws 102-26, 102-208 and 102-325. The regulations require the college to disclose information about campus safety policies and procedures and certain crime statistics. The statistics are currently available in the Campus Safety Department.

## Publication Requirements

It is mandatory that the statistics are made public by January 1st of each year (unless otherwise indicated) to all current and prospective students and high school counselors in the areas of admissions, literature, brochures, catalogs, and websites, or anytime a student enters into a financial obligation with a school (excluding application fees).

## Completion and Transfer Rates

Over 1,350 students transfer annually from Fullerton College to UC, CSU or regionally-accredited California independent or out-of-state colleges or universities.

- Fullerton College sends approximately 85-90\% of all transfers to California State University campuses. The top CSUs in terms of number of Fullerton College transfers are: Cal State Fullerton, Cal State Long Beach and Cal Poly Pomona.
- Fullerton College transfers students state wide. The top UCs in terms of number of Fullerton College transfers are: UC Irvine, UC Los Angeles, UC Riverside and UC Berkeley.
- Fullerton College is in the top five California Community Colleges in terms of overall transfers to the University of Southern California (USC) for Fall 2008.


## Campus Safety Institutional Security Policies and Crime Statistics

| Part 1 - Crime | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
| :--- | :---: | :---: | :---: |
| Aggravated Assault | 7 | 3 | 2 |
| Arson | 2 | 0 | 1 |
| Auto Theft | 3 | 3 | 6 |
| Burglary | 37 | 22 | 18 |
| Forcible Sex Offenses | 0 | 1 | 0 |
| Murder/Non-Negligent Manslaughter | 0 | 0 | 0 |
| Negligent Manslaughter | 0 | 0 | 0 |
| Non-Forcible Sex Offenses | 1 | 0 | 3 |
| Robbery | 0 | 0 | 0 |
|  |  |  |  |
| Special Category Arrest |  |  |  |
| Drug Abuse Violation | 1 | 1 | 5 |
| Hate Crimes | 0 | 0 | 0 |
| Liquor Laws | 0 | 1 | 1 |
| Weapons Possession | 1 | 0 | 0 |

## Safety for the Fullerton College Community

The information is published in accordance with the Jeanne Clery Disclosure of Campus Safety Policy and Campus Crime Statistics Act.

## Crime Reporting Procedures

Working together, campus safety at Fullerton College is everybody's business. No community, of course, can be totally riskfree in today's society. Students, faculty, staff and visitors are partners in creating an atmosphere that is safe and conducive to learning

Fullerton College maintains a Campus Safety Department with personnel available 24 hours a day. A person may report any criminal action or any other emergency at any time - day or night - by calling (714) 992-7080 or by coming in person to the Campus Safety Department, located in Parking Lot C off Lemon Street at Fullerton College Drive. Emergency call boxes are located throughout the campus and will connect the caller directly to Campus Safety.

## Access to Campus Facilities

BUILDINGS - Most campus buildings are open from 6:30 am to $10: 30 \mathrm{pm}$, Monday through Friday. On weekends, opening of specific buildings is accomplished based upon scheduled use and/or special request. All Fullerton College students and staff members have been issued ID cards which they may be asked to produce if there is a question about their authorization to be in a specific area.

Individuals who need to be in campus buildings or areas other than during regularly-scheduled work hours should notify the Campus Safety Department of their presence and request permission and/or approval for necessary access.

Some campus rooms and areas may be protected by intrusion alarms. Before entering such areas, the Campus Safety Department should be called. Campus buildings will normally be locked from 11:00 pm on Friday to 6:30 am on Monday. As previously stated, Campus Safety personnel will unlock doors for weekend classes and other events as published in the Master Calendar located at www.fullcoll.edu under "Campus Calendar."

COLLEGE PROPERTY - No district property may be removed from the campus without expressed written permission from the Division Dean or Area Supervisor. Unauthorized removal of district property from the campus is a violation of the law and may be prosecuted by the District.

## Campus Safety Services

It is the policy of the North Orange County Community College District's Board of Trustees to protect the members of the total college community and to protect the property of Fullerton College. Under the general direction of the Vice President of Student Services, the Campus Safety Department shall ensure that reasonable protection is provided by using methods that fit within and contribute to the educational philosophy and process of the institution.

Fullerton College has a formal memorandum of understanding with the Fullerton Police Department to request assistance for incidents that require resources not available at Fullerton College. The college will summon the assistance of other agencies to provide services for incidents that require special resources.

## Crime Prevention

One of the essential ingredients of any successful crime prevention program is an informed public. It is the intent of Fullerton College to inform students and staff, in a timely manner, of any criminal activity or security problems which may pose a reasonable threat to their physical safety. Such information will normally be distributed to students through this document and through student publications. The Fullerton College Hornet newspaper is the student publication. Staff are informed through in-house memos or bulletins and regularly-published newsletters.

Another critical element of a campus safety program is training Campus Safety, Student Health Services, and the Student Affairs offices sponsor programs on various topics ranging from sexual assault awareness to substance abuse prevention.

Finally, all effective crime prevention programs include some measure of people watching out for one another. All staff and students are asked to be ALERT, SECURITY CONSCIOUS and INVOLVED. Call the Campus Safety Department at (714) 992-7343 whenever you see suspicious behavior.

## Substance Abuse

In accordance with Public Law 101-226 "Drug-Free Schools and Communities Act Amendment of 1989," the Board of Trustees of the North Orange County Community College District prohibits the unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees on Fullerton College property and as part of any Fullerton College sponsored or sanctioned activity.

Any students or employees in violation of this policy are subject to disciplinary action up to and including expulsion from Fullerton College or termination from employment for violations of the standards of conduct.

The decision to take disciplinary action in any instance rests with the Board of Trustees after consideration of the recommendations of the Fullerton College President.

The possession, use, and sale of alcoholic beverages by anyone on Fullerton College-controlled property is a misdemeanor as per California Business Code 25608 and a violation of the NOCCCD Policies Relating to Students. The use, sale, or possession of any illegal drug is a violation of State law and any person found in violation may be subject to arrest by Federal, State, local or Campus Safety personnel. Criminal prosecution is separate from any administrative discipline that may be imposed by the District.

For more information, contact:

## FC Admissions and Records

(714) 992-7075

2000 Building — 1st Floor
FC Student Affairs
(714) 992-7095

200 Bldg, Room 223

FC Campus Safety
(714) 992-7080 1500 Building

FC Cadena/Transfer Center (714) 992-7086 200 Bldg, Room 223

For a complete Campus Safety Plan and/or more detailed information regarding the Students Right-to-Know and the Jeanne Clery Disclosure, visit the Fullerton College website: www.fullcoll.edu/ - click on Campus Safety; then click on Student Right-to-Know, OR, click on Student Affairs; then click on Student Right-to-Know.

## Withholding Student Records

NOCCCD BOARD POLICY Section 5035 Student Personnel, Withholding Student Records, Adopted 6/14/05

Probable Cause: The President, or designee, may place a hold on a former or current student's registration, grades and/or transcripts for a period of no more than three working days for probable cause. In the event that the President, or designee, continues this hold on a student's records, the student must be informed in writing that such a hold is being placed on his/her record and the reason for that hold.

Financial Obligations: In accordance with Title 5, Subchapter 7.5, Section 59410, grades, transcripts, diplomas, and registration privileges, or any combination thereof, shall be withheld from any student or former student who has been provided with written notice that he or she has failed to pay a proper financial obligation due to the district or a college. Any item or items withheld shall be released when the student satisfactorily meets the financial obligation.

The definition of proper financial obligation shall include, but is not limited to: student fees; obligations incurred through the use of facilities, equipment or materials; library fines; unreturned library books; materials remaining improperly in the possession of the student; and/or any other unpaid obligation a student or former student owes to the District. A proper financial obligation does not include any unpaid obligation to a student organization.

A hold may be placed on a student's academic record and subsequent term registration when the student has an outstanding obligation to the college. Once the student satisfies the obligation, the hold will be released.

Students must contact the respective office/department listed below to clear any hold:

## Hold Type

Accounts Receivable
Admissions Info Required
Bursar's Hold
Disciplinary
Financial Aid
International Student
Library Materials/Fees
Registrar's Hold
Scholastic Dismissal
Special Admit Form
Transcript
Unpaid Balance

## Office to Contact

Bursar
Admissions and Records Bursar
Student Support Services
Financial Aid
International Student Center Library
Admissions and Records
Admissions and Records
Admissions and Records
Admissions and Records
Admissions and Records

## Support Programs and Services

## Academic Support Center (ASC)

800 Bldg (LLRC) — 1st Floor - (714) 992-7065 -<br>academicsupport.fullcoll.edu

The Academic Support Center (ASC) provides free services to ALL Fullerton College students and staff in achieving academic success. The center is comprised of three related services: the Skills Center, the Tutoring Center, and the Writing Center.

Skills Center - (714) 992-7144
E-mail: skillscenter@fullcoll.edu
Website: www.skillscenter.fullcoll.edu

- Instructional support for individuals in study skills, vocabulary improvement and critical thinking.
- With instructor approval, administer make-up exams for any Fullerton College course.
- Instructional support for courses in reading, English-as-a-Second Language (ESL), foreign languages and writing. (Software, audio, and print materials available.)

Tutoring Center - (714) 992-7151
E-mail: tutoringcenter@fullcoll.edu
Website: www.tutoringcenter.fullcoll.edu

- Free tutoring for most college courses by facultyrecommended tutors
- Walk-in tutoring for accounting, chemistry, physics, math (Monday-Saturday)
- Inspiration software (for organizing ideas for any subject)
- Math Anxiety Workshop offered each semester
- E-mail tutoring in math and English through website: tutoringcenter.fullcoll.edu

Writing Center - (714) 992-7153
E-mail: writingcenter@fullcoll.edu
Website: www.writingcenter.fullcoll.edu

- Assistance with any academic writing project, including transfer letters and scholarship application essays, whether for class or personal use
- Tutoring writing projects at any stage from brainstorming to final draft
- Both walk-in and by-appointment tutoring
- Frequent workshops on a wide variety of topics related to academic writing
- Word Processing


## Admissions and Records

2000 Bldg - (714) 992-7075 -<br>www.admissions.fullcoll.edu

The Admissions and Records Office admits and registers all students; maintains, retrieves and distributes student records and transcripts; serves as the final evaluation of all graduation applications; reports attendance data to appropriate agencies; and provides information and supportive contracts to students, faculty, administrators, and the community.

## Assessment/Orientation Center

## 500 Bldg, Rm 513 - (714) 992-7084 staffwww.fullcoll.edu/gmenchaca

The Assessment/Orientation Center offers required assessment tests for enrollment in Math and English courses. No appointment is needed; come to the center during operating hours to complete your assessment. Upon completion of the assessment and orientation, new students will be scheduled for a group advising session.

## Bookstore

## 2000 Bldg, 1st Floor - bookstore.fullcoll.edu

Offering all of the materials needed for Fullerton College students to succeed in their education, the Bookstore is located in the Student Services Building (2000) facing Chapman Avenue. A complete selection of the textbooks and course materials required or recommended by faculty is arranged in easy-tolocate fashion by department, course numbers and CRN. In addition, extensive classroom and office supplies, study aids, college clothing, giftware, software at education discounts, small electronics, books, magazines, and snacks are available. Through our new partnership with Apple, the Bookstore now carries iPods. During the semesters, the Bookstore is open Monday through Thursday 7:45 am to 7 pm , Friday 7:45 am to 3:45 pm, and some Saturdays 7:30 am to 2 pm . Special hours for breaks, holidays, rush periods, and inventory are posted in the Bookstore and available by phone at (714) 992-7008. Go to our website for online ordering!

## Cadena Cultural Center

## College Center, Room 212, 1st Floor - (714) 992-7086 http://cadena.fullcoll.edu

The Cadena Cultural Center supports the core values of the college to elevate excellence in serving the needs of its diverse student population. The center strives to be an advocate and the nexus for the community to engage in conversations and action to enhancing multiculturalism at Fullerton College. The center offers students, faculty, and staff information about serving the needs of AB540, undocumented students, Lesbian/Gay/ Bisexual/Transgendered/Queer/Intersexed/Questioning, as well as students from historically underrepresented groups such as African American, Native American, Latino/a, Asian/Pacific Islander, low income, and former foster youth. The entire college community is welcomed to attend and participate in the center activities and services.

Some activities and services offered through the Cadena Cultural Center include:

- Welcome services for AB540, LGBTQIQ, historically underrepresented students, low income, foster youth and first-in-their-family college students
- Host invited speakers to discuss issues of self-empowerment and ways to eradicate sexism, heterosexism, racism, ageism, bias regarding physical/mental ability, classism, monocultural ethnocentrism, religious dominance, language discrimination, bias regarding immigrant status and other pertinent topics
- Resource library with books, listings of scholarships, internships, and off campus opportunities that promote transfer
- Fieldtrips to local museums and cultural exchanges
- Cultural celebrations, recognitions, and honoring diversity in current events
- Collaborations with student clubs, campus committees, and community members that provide a space for active dialog on diversity issues and self-empowerment


## CalWORKs

## 315 N. Pomona (west of campus between Whiting and Wilshire) - (714) 449-4792

The CalWORKs Program is designed for students who are receiving AFDC/Welfare. CalWORKs students are assigned to a CalWORKs Counselor who provides the guidance and support needed to meet both their academic goals and the requirements mandated by their County Social Worker. A team approach is used to advocate for student rights. Services include:

- Academic, career and personal counseling
- Child care grants for both on/off-campus child care providers
- Emergency assistance for bus passes, parking permits and books
- Referral to both on/off-campus resources for basic needs and emergency support services (housing, utilities, mental health, shelter, etc.)
- Collaboration with on-campus programs in order to ensure student needs are met (DSP\&S; EOPS/CARE; Financial Aid; Skills Center, etc.)

In addition, students that are not currently receiving AFDC/ Welfare, but may be in the process of applying, are encouraged to schedule an appointment with a CalWORKs Counselor prior to applying through their local County office. Students will secure an overview of the CalWORKs Program requirements. Students that have been sanctioned and want information regarding how to cure their sanction are also encouraged to contact our office. Office hours: Mon-Thurs, 8 am-5 pm.

## CalWORKs Program Eligibility

- Parents as well as children must be receiving cash aid (i.e., parents who are no longer receiving cash aid and are only receiving cash aid for their children are not eligible);
- Must be able to provide proof of program eligibility via county documentation in order to receive CalWORKs program services;
- No unit minimum.


## Campus Dining

Located in the College Center (200 Building), the Food Court offers several branded concepts including Grill 155, Ultimate Baja, La Vincita Pizza and Pasta, Stacks Deli, and grab-and-go items including chips, snacks, salads, sandwiches, beverages and school supplies. Hours during Fall/Spring semesters are Mon-Thurs (7 am-9 pm), Fri (7 am-2 pm), and Sat (7 am-2 pm). Summer and holiday hours are posted in advance.

Beverage and snack vending units are located throughout the campus for 24/7 availability.

## CARE: Cooperative Agencies Resources for Education

2000 Bldg, 2nd Floor - (714) 992-7097 - eops.fullcoll.edu

CARE is an integral program of EOPS. It is designed to provide specific support services for single parent students who receive cash aid and are in the CalWORKS Program or deferred. Assistance is provided to ensure the opportunity for students to succeed and attain their educational goal. CARE offers the following services:

- Auto Repair Payment
- Book Grants (money for books)
- Bus Passes
- Child Care Referrals
- Educational Supplies
- Financial Aid Assistance
- Life, Career and Academic Planning
- Monthly Gas Cards
- Parenting Workshops
- Social Services Referrals
- Tutoring


## Information on Eligibility

- 18 years of age or older
- Currently receive cash aid benefits
- EOPS eligible
- Have at least one child under fourteen years old
- Single head of household


## Career and Life Planning Center

```
2000 Bldg, 2nd Floor - (714) 992-7121 - careercenter.fullcoll.edu
```

The Career and Life Planning Center provides students with a comprehensive approach to career/life planning and development including a variety of resources and services such as:

- Individual and group counseling
- Counseling to facilitate career exploration and career decision making
- Counseling for career/life transitions
- Occupational and educational information utilizing computerized/internet systems
- Career-related assessments tools
- Special workshops and courses for undecided and re-entry students
- Assistance with resumes, cover letters and applications
- Career research assistance
- Extensive research library of career reference materials


## Child Development Center/ Lab School

The Fullerton College Child Development Center and Lab School provide high quality early childhood programs for preschool children ages $21 / 2-51 / 2$. Teachers design the early care and learning programs to meet the developmental needs, interests and learning styles of the children. The center is licensed and holds accreditation from the National Association for the Education of Young Children. The Center serves families without regard to sex, race, religion, sexual preference or physical handicap.

In addition, The Child Development Lab School serves as a college classroom for students in the Child Development and Educational Studies Department. Teachers provide an environment that supports and promotes early care and learning through the creation of natural learning spaces where children can investigate, learn and develop.

The hours of operation are Monday through Friday from 7:30 am to $6: 00 \mathrm{pm}$. The Center is open year round and follows the holiday schedule of Fullerton College. There are 2, 3 and 5 day enrollment options. The program is available to students, Fullerton College staff and the greater community. We provide the children with a nutritious breakfast, lunch and snack daily at no additional cost. Please call to visit, check availability and tuition rates or to be added to our waiting list. The Center offers free and reduced cost child-care services to eligible families.

The Child Development Center is a part of the Fullerton College Social Sciences Division and works in conjunction with the faculty of the Child Development and Educational Studies Department.


## Counseling and Student Development

2000 Bldg, 2nd Floor - (714) 992-7084 counseling.fullcoll.edu

The Fullerton College Counseling and Student Development Division provides services for students through the Counseling Center, the Counseling Resource Center, the Career and Life Planning Center, the Cadena/Transfer Center, the Assessment Center, Disability Support Services and the Workforce Center. In addition, the division provides student development counseling and guidance courses in College Study Skills, Career Development and Educational Planning. (See course offerings under Counseling.)

The center also provides on-line counseling. This is a web based e-mail service through the Fullerton College website for students to ask general counseling questions. This service is not intended to take the place of our in-person appointments, but rather as a resource for general questions.

The Counseling Center offers new, continuing and returning students individual appointments with counseling faculty to:

- Assist students in appropriate selection of math, English and basic skills courses
- Assist students in clarifying their career goals
- Assist students in preparing a Student Educational Planning Program (SEPP), which meets the requirements for college majors, career preparation and transfer to four-year colleges and universities
- Assist students in resolving concerns about life management issues
- Provide information on college policies and regulations
- Provide orientation and new student group advising
- Provide students with information on transfer, major preparation, and general education requirements
- Provide students with unofficial progress checks for certificates, associate degrees and transfer requirements
- Provide unofficial evaluations of other college transcripts
- Provide walk-in general information counseling


## Disability Support Services

## 840 Bldg, Room 842 - (714) 992-7099 - dsp.fullcoll.edu

The Disability Support Services (DSS) office offers a variety of services for students with documented disabilities, including learning disabilities, visual, hearing and mobility impairments, psychological conditions, acquired brain injuries, and other medical disabilities. Services are provided in compliance with state and federal legislation.

Fullerton College's Disability Support Services office supports students in achieving their educational goals by providing services which are above and beyond what is available to the general student population. The DSS staff is committed to providing services in a timely and effective manner.

Eligible students who have a verifiable disability qualify for support services through the DSS office. The services are designed to support students in the achievement of their academic and vocational goals. Reasonable accommodations are determined by the DSS counselor/specialist on an individual basis. Services and accommodations are based on the educational abilities and limitations unique to each student.

In order for you to receive services from DSS, you must:

1) Be currently enrolled as a Fullerton College student; and
2) Provide detailed documentation of your disability from an appropriate professional and/or participate in the learning disability assessment process through DSS.

## What Services Are Provided?

- Test taking accommodations
- Specialized counseling
- New DSS student orientation
- Priority registration
- Alternate media
- Notetaking assistance
- Specialized tutoring
- Interpreting services
- Learning disability assessment
- Assistive and adaptive technologies
- Adaptive computer and learning strategies classes


## EOPS: Extended Opportunities Program and Services

2000 Bldg, 2nd Floor - (714) 992-7097 - eops.fullcoll.edu
EOPS is a support services program designed to provide entry, retention and transition services for educationally and economically needy students. The support services are designed to assist and contribute to the student's success in college.

## Counseling Services

Experienced staff is available to assist students in adjusting to the college environment by providing information on campus policies, financial aid, scholarships, campus, and community referrals. The counseling staff is comprised of professional counselors and paraprofessionals. Professional counselors are available for guidance, assessment, academic, career and personal counseling. Paraprofessionals assist in class scheduling, registration and a variety of other services for the purpose of supporting student retention and successful transition to either employment or higher education.

## Financial Aid Information

The EOPS Financial Aid specialist acts as the formal link between EOPS and the Financial Aid Office. The specialist provides assistance to students in applying for the various types of financial aid available and in completing the various financial aid forms. Assistance is available in the research and application for appropriate scholarships.

## Information on Eligibility

The following eligibility criteria apply in order for a student to be considered for the EOPS Program:

- Completed less than 70 units (or 6 semesters) of college level coursework
- Educationally disadvantaged as determined by the EOPS Program
- Enrolled full time (12 units) when accepted by the EOPS Program
- Qualified to receive a Board of Governors Grant (BOGG)
- Resident of California


## Outreach Services

This component provides prospective students with information and assistance on admissions and services available at Fullerton College. Efforts are focused on the local high school campuses and in the community to identify EOPS eligible students interested in Fullerton College. Prospective students are provided with college presentations, seminars and a College Preparation Conference.

## Escort Service

Escort service is available daily, Monday through Friday. Call ext. 27343 on any campus phone or by dialing *81 on any campus phone or (714) 992-7343 on any cell phone. Emergency phones are strategically located throughout the campus.

## Financial Aid

100 Bldg, Room 115 - (714) 992-7091 financialaid.fullcoll.edu

PHILOSOPHY - In keeping with the open-door philosophy of Fullerton College, the Financial Aid Office endeavors to support the dignity and worth of each individual. The office is vitally concerned with the educational needs of all individuals in the community and recognizes that the specific needs for education vary among students. Students and their individual needs then become the chief focal point of the Financial Aid Office. Its goal is to provide monetary assistance to students who may benefit from higher education, but who cannot do so without financial assistance.

ELIGIBILITY - Specific eligibility requirements vary from program to program. Please contact the office or access the website for the various State aid programs. Basic Federal grant eligibility criteria are as follows:

- Demonstrates a financial need according to a recognized Federal system on need analysis
- Does not owe a repayment on any previously-received Federal grants
- Does not yet possess a Bachelor's Degree
- Enrolled as a regular student in an eligible program
- Has no drug-related convictions while on Financial Aid
- Maintains satisfactory academic progress
- Males must be registered with the Selective Service Board
- May not be in default on any Perkins, Stafford, Plus or Direct Loan
- Possesses a high school diploma, GED certificate or passes a Federally-approved test
- Student must be an American citizen, or eligible non-citizen
- Working toward a degree or certificate program

Basic Loan eligibility criteria are:

- Demonstrates a financial need
- Enrolled in at least 6 units (half time)
- Maintains satisfactory progress
- Prior loan aggregate amounts are taken into account to determine loan eligibility


## Programs

## FEDERAL PELL GRANT

A grant from the Department of Education to students for educational expenses based on need.

## FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG)

Designed to assist students who have exceptionally high financial need and are eligible for the Pell Grant.

## FEDERAL WORK-STUDY (FWS) PROGRAM

Provides jobs for students who need financial aid and meet the need and eligibility requirements. FWS allows students to earn money to help pay for educational expenses. Must be enrolled at least half time.

## EXTENDED OPPORTUNITY PROGRAM AND SERVICES GRANT (EOPS)

A state funded program, awarded to students from limited income families.

## SUBSIDIZED LOAN PROGRAM

Provides students with low-interest loans (which are subsidized by the government as long as the student is enrolled at least half-time in college courses) for educational expenses. The interest rate may vary from year to year.

## UNSUBSIDIZED LOAN PROGRAM

Provides loans for students who do not qualify, in whole or in part, for subsidized loans. Authorized under a federal law called the Higher Education Amendments of 1992, the terms of the unsubsidized loans are the same as the terms for subsidized loans, except the interest begins to accrue immediately, and can be paid quarterly or capitalized and paid at the end.

## CAL GRANTS

To qualify for a State CAL GRANT A, B, or C, a student must be a California resident attending an eligible school or college in California, meet an early application deadline of March 2, and is based on GPA (as well as many other qualifying factors). A student can receive only one CAL GRANT, either CAL GRANT A, B, or C. (CAL GRANT A can only be received at a four-year institution.)

## GRANT ADVANCE FUND

Students who have applied for Financial Aid, but won't receive their funds in time to buy their books, can apply for a $\$ 400$ advance to be deducted from their grant. Please note, student must meet grant eligibility requirements.

## BOARD OF GOVERNORS' ENROLLMENT FEE WAIVER

Provides three ways to help low-income students pay for the enrollment fee; eligibility requirements vary. This can be applied for online through the registration system.

## Pro-rata Refund Policy

In accordance with the Higher Education Act of 1995 as amended, Fullerton College will apply a pro-rata refund policy to all eligible students. As described in the applicable section of the federal regulations, 34 CFR 668.22 , pro-rata policy refunds will only be applied to students who completely withdraw on or before the $60 \%$ point of the semester. The $60 \%$ point of the semester at Fullerton College means the eleventh week in an 18-week semester.

A REFUND is defined as the unearned amount of institutional charges (i.e., books, supplies, living expenses, etc.) that must be returned to the student financial aid programs, other sources of aid or a student. A refund is the difference between the amount paid towards institutional charges and the amount the school may retain under the appropriate refund policy.

The refund period for full semester classes is the first two weeks of the semester, as cited in the Fullerton College catalog. After the second week, no refund can be made. For short term classes, refunds can be as early as the first or second day of classes. A $\$ 10$ processing fee will be deducted once each semester.

A REPAYMENT is the unearned amount of a direct disbursement of financial aid funds to a student that must be paid back. If the school determines that the student received a direct disbursement in excess of the educational living expenses he or she could have reasonably incurred while still enrolled, then a portion of the disbursement was not earned and must be repaid by the student to the financial aid program.

## Application Procedure

Students wishing to apply for financial aid should contact the Financial Aid Office as soon as possible. A single application form which is called a FAFSA ("Free Application for Federal Student Aid") is used for all financial aid. Students may access the website at www.fafsa.ed.gov. The application period for financial assistance for the 2009-2010 school year is January 1, 2009 through June 30, 2010. Priority funding will be awarded to those submitting completed files between April 1st and July 31st of each year.

## Fullerton College Foundations

Fullerton College has two organizations designed to support Fullerton College and Fullerton College students through gifts and donations from the community.

1) Friends of Fullerton College, Inc. - a non-profit public benefit corporation established to assist Fullerton College in achieving and maintaining exceptional educational programs by soliciting, receiving and distributing gifts, grants and contributions from a broad base of the public in order to financially support programs and projects that benefit the college and its students. Donations are accepted in the Fullerton College Bursar's Office located on the first floor of the 2000 Building, across the street from the main campus. For questions about giving, please visit http://fcfoundation, or contact (714) 992-7006.
2) Fullerton College Foundation, Inc. - currently has more than 100 scholarships established to benefit students. Students wishing to apply for a scholarship or loan, or anyone wishing to make a donation to support student scholarships should go to http://fullertoncollegescholarships.com or call (714) 526-5651.

## Health Services

## 1200 BIdg, Room 1204 - (714) 992-7093 - <br> http://healthservices.fullcoll.edu

The Health Center provides health care and personal counseling to the students of Fullerton College. The Health Center is open from 8:30 am to $5: 30 \mathrm{pm}$ Monday through Thursday and 8:30 am to $4: 00 \mathrm{pm}$ on Friday during the Fall and Spring terms. The summer schedule is variable. The mandatory health fee (payable at the time of registration) includes the following services:

- Clinical Medicine - Physician and nurse-practitioner consultation by appointment, diagnosis and treatment is free of charge. Clinical laboratory testing*, radiology referral and follow-up*, medications and/or prescriptions*, minor surgery*, referral to community hospitals/specialist.
*Available at low cost for students
- Crisis Intervention and Personal Counseling - Individual consultation with a licensed psychologist based on crisis intervention model. Referrals available to private and community health agencies.
- Health Care - Health/wellness counseling, screening for immediate or follow-up care, emergency care for illness, first aid for traumatic injuries, hearing appraisals, maintenance of health records, accident reporting, health education, referral to community agencies. A student accident insurance plan* is maintained by Health Services.
*Deductibles and limitations apply


## Your Health Fees at Work

Student Health Services provide all of the services you find in a routine medical clinic. Most of the services such as a visit to the physician, nurse practitioner, RN, psychologist, or health educator are at no cost to you. Laboratory tests, immunizations, medications, pelvic exams and employment or wellness exams are provided at very low fees. HOURS: Nurses are available from 8:30 am - 5:30 pm Monday through Thursday and from 8:30 am - 4:00 pm on Friday. Physicians, Nurse Practitioners, Health Educator, and Psychologists by appointment.

## Housing

The College does not have a student housing facility. A list of housing available to students is posted in the College Center, 2nd Floor, Room 223. Included is information on rentals, rooms for rent, apartments for rent, roommates wanted, roommates available, and brochures.

## International Student Center

## College Center — Room 220, 2nd Floor (714) 992-7078 - <br> http://isc.fullcoll.edu <br> isc@fullcoll.edu

The International Student Center (ISC) provides services to international students on the F-1 student visa and those seeking an F-1 student visa. The ISC is a full-service office dedicated to supporting international students both academically and personally. International students benefit from specialized and individual attention. Services and programs include:

- International admissions (new, transfer, and change of status students)
- Academic counseling
- Immigration advising
- New Student Orientation and Welcome Week activities
- Housing and American host family resources
- Employment authorization and resources
- Cultural activities and social events
- California Cousins Mentor Program

More information on the $\mathrm{F}-1$ student visa can be found at http://educationusa.state.gov.

## Library Services (LLRC)

800 Bldg (LLRC) - (714) 992-7039 — library.fullcoll.edu

The Library (LLRC) assists students, faculty, and staff to attain their educational and informational goals in a supportive library environment. The library offers traditional services such as a large circulating book and audiovisual collection, periodicals, interlibrary loan service, reserve materials and reference and research assistance. Technology has been incorporated into the library's services, available both on campus and off campus via the library's website. These include the library catalog, online databases for periodicals and in-depth subject resources, as well as Internet searching and documentation assistance.

In the library building itself, the staff is on duty to assist students with their research needs. There are computers with Internet connections for student research use, as well as email express and word processing capabilities. In addition, there are Internet connections for laptop computers. Adaptive workstations are available to assist persons with disabilities in accessing information. All computers have printing available for a fee. Four coin-operated photocopy machines are also available for student use.

Library Instruction Sessions are offered throughout the semester to assist students wishing to learn to use the online catalog and periodical databases, to upgrade their Internet skills, and to learn bibliographic citation formats needed for research papers.

Library Hours: Mon-Thurs, 7:30 am-9 pm - Fridays, 7:30 am4 pm - Saturdays, 10 am-3 pm

## Lost and Found

The central location for all lost and found articles is the Campus Safety Department located in the 1500 Building. Articles will be tagged, logged, and properly secured. Items can be claimed at the Campus Safety Department.

## Math Lab

The Fullerton College Mathematics Lab located in the LLRC has been in continuous operation since 1967. It provides services in a supportive environment where students enrolled in MATH 004 F, 006 F, 015 F, 020 F, 030 F, 040 F, 141 F and 142 F can achieve their mathematical goals through various supplemental support services specific to their textbooks and instructors. The Lab offers individual tutoring, CD and DVD lectures, computer tutorials, online homework programs, individual and group study locations, a location for make-up quizzes and tests, and access to textbooks. During the first week of classes each semester, students visit the Math Lab and receive class orientations explaining the services offered. Student attendance is required and is tracked electronically when students scan in and out of the lab using their student ID cards.

## Puente Project

## 2000 Bldg, 2nd Floor - (714) 992-7084 -

http://puente.fullcoll.edu
The Puente Project is an Academic Preparation Program that for more than 25 years has improved the college-prep rate of tens of thousands of California's educationally disadvantaged students. Its mission is to increase the number of educationally disadvantaged students who:

- Enroll in four year colleges and universities
- Earn college degrees
- Return to the community as mentors and leaders of future generations

Students are guaranteed English and Counseling courses, receive one-to-one counseling, mentoring, social events, college field trips and networking

## ROTC

Through arrangements with local universities, reserved officer training is available to students of Fullerton College. For more details concerning concurrent enrollment, scholarships, requirements and opportunities with the three branches of the armed services, contact the following:
Air Force ROTCLoyola Marymount, Los Angeles310-338-2770
Army ROTC
California State University, Fullerton ..... 657-278-5545
Navy ROTCUniversity of California, Los Angeles310-794-9425

## Service Learning

College Center, 2nd Floor, Room 225 - (714) 992-7067 http://specialprograms.fullcoll.edu

Service Learning provides the opportunity for students to connect the classroom to the community. The real-world experiences result in active, enhanced learning, civic engagement, commitment to helping others and helping provide solutions regarding issues that affect the community and world.

## TAP: Transfer Achievement Program

College Center, 2nd Floor, Room 225 - (714) 992-7084 tap.fullcoll.edu

The Transfer Achievement Program (TAP) is a comprehensive program designed to encourage and support students in their goal of transferring to a four-year university. Some of the benefits of the program include:

- guaranteed classes
- additional personal and academic support from instructors, counselors and peer facilitators
- opportunities to develop a peer support system
- classes in college success and career and life planning
- opportunities to visit leading universities


## Transfer Center

College Center, Room 212, 1st Floor - (714) 992-7086 http://transfer.fullcoll.edu

The Transfer Center is a dynamic campus resource available to all Fullerton College students to help you stay motivated, excited, and prepared to transfer to a four-year university. There are many steps to transfer, from college exploration to college selection, major exploration to major preparation, not to mention the entire application process. The center provides services to help you explore, prepare, and succeed in your transfer plans. The Transfer Center can help you every step of the way! Services and activities include the following:

- Field trips to explore college campuses in the local area such as UCLA, Cal State Fullerton, Long Beach State University, UC Irvine, and USC
- Catalogs from four-year universities in the CSU/UC system, as well as private and out-of-state schools
- Walk-in transfer advising, counseling and assistance
- University representative contact information including email and telephone numbers to receive individual transfer admission information
- Computer stations with Internet access to access www.ASSIST.org, college applications, FAFSA, college exploration, webinars, email admissions representatives
- Monthly e-newsletter for students interested in up-to-theminute transfer information
- Financial aid and scholarship information
- Guide to Majors sheets
- Appointments with visiting representatives from four-year colleges and universities
- Transfer application assistance i.e. application deadlines, personal statement review and preparation
- Workshops on transfer planning for UC/CSU/Private/Out-of-state, Women's Colleges, Historically Black Colleges and Universities
- College fairs with over 20 colleges and universities taking place three to four times a year


# Teacher Preparation - Center for Careers in Education (CCE) 

College Center, 2nd Floor, Room 225 - (714) 992-7067 http://teacherprep.fullcoll.edu

The Center for Careers in Education (CCE) helps prepare students to become effective teachers in a profession that is in need of trained, diverse individuals. It offers resources and services to help students reach their career goal through participation in teacher preparation "apple" courses, early field work experiences, an integrated teacher preparation program with Cal State University Fullerton, Club Teach, specialized academic advisement/counseling, and CBEST test preparation workshops.

## Veterans' Services

```
700 Bldg, Room 712 - (714) 732-5279 -
veterans@fullcoll.edu
```

Veterans, service members, and their survivors and dependents may apply for their VA Educational Benefit Programs through the Office of Financial Aid and Veterans Services.

VA students must complete and submit a REQUEST FOR ENROLLMENT CERTIFICATION form for each semester in order to collect their benefits. An advance payment of their benefits may be obtained, if eligible, by submitting their REQUEST form at least 30 days prior to the start of the enrollment period to be certified. Also, all veterans must submit a SEPP (Student Education Program Plan) form for each semester that they wish to be certified, which can be obtained from their academic counselor.

VA students must submit all of their official prior postsecondary transcripts (civilian) to be evaluated along with their second REQUEST form, and declare a program (major) for them to be evaluated. Military credit will be applied upon application for graduation.

Fullerton College, as required by federal regulation and DVA policy, conducts an evaluation of all VA students' prior postsecondary education, experience and training (civilian and military) before certifying their third enrollment period. Also, as required, Fullerton College grants the appropriate credit, shortening their training period proportionately, and notifies the DVA and these students the amount of credit allowed towards their declared program.

Unless otherwise notified, all programs (majors) in this catalog are approved for the training of VA students. Transfer programs are approved contingent upon Fullerton College having current articulation agreements with the universities offering the transfer programs. Contact the Cadena/Transfer Center for Fullerton College's approved transfer programs.

VA students cannot be certified if their cumulative grade point average (overall GPA) remains below 2.00 for two successive certified enrollment periods. Once their overall GPA is 2.00 or above, their subsequent enrollment periods can then be certified.

## Workforce Center

2000 Bldg — Room 2002 - (714) 992-7136 — workforce.fullcoll.edu

The Workforce Center's goal is to educate students on the skills, attitudes, and experiences required to succeed in the workplace. We provide up-to-date information on employment opportunities, job-seeking techniques, employability skills, and business etiquette. The Center offers job placement services and resources to currently-enrolled students and alumni (within two years after graduation). The Center provides:

- Daily postings of full-time, part-time, temporary and seasonal employment opportunities
- Individualized assistance with resume and cover letter writing
- Mock interviews and interview techniques
- On-line resume, cover letter, and interview preparation and practice (password required)
- Workshops to improve employment skills
- Free resume faxing
- Resource materials on relevant job search and business etiquette topics
- Job Fairs each semester which connects hundreds of employers with FC students
- Computers to assist with job search

Students must register each school year by presenting their current student ID or a driver's license and class printout.


## Student Activities

## Associated Students

College Center - Room 222, 2nd Floor (714) 992-7118 - studentwww.fullcoll.edu/as

Since virtually all major decisions that are made on the Fullerton College campus affect students in some way, student input to the various decision-making bodies has become increasingly relevant, necessary, and welcomed. The Associated Students Senate is the recognized "student voice" in the shared governance process of the campus community.

Associated Students (A.S.) consists of elected and appointed members including the Associated Students President, Vice President, Treasurer, Senators, Commissioners, Senate Members, and Inter-Club Council (I.C.C.) President. The Student Trustee may also attend and report at the Associated Students Senate meetings. A.S. elections are held in the fall for the current year and in the spring for the following year.

Associated Students Senate holds business meetings every Tuesday at 1:30 pm in Room 227, College Center, 2nd Floor. All students and guests are welcome to attend.

Associated Students and Inter-Club Council provide a comprehensive student activities and club program. Events are planned with sufficient variety and provide an opportunity for all to participate.

Inter-Club Council meetings are every other Monday at 1:30 pm in Room 227, College Center, 2nd Floor. All students and guests are welcome to attend.

Check the Associated Students Office (Room 222, College Center, 2nd Floor) or the Student Affairs Office (Room 223, College Center, 2nd Floor) for times and locations of all other A.S. and I.C.C. club meetings.

## Associated Students Legal Clinic

The Associated Students Legal Clinic attorney assists Fullerton College students, staff and senior citizens with legal concerns. This free service is provided by the Associated Students. For an appointment, call (714) 992-7118.

## Associated Students Validation

Associated Students Benefits Validation - $\$ 7.50$ (per semester; Summer Benefits Validation - \$3.75).

A Fullerton College Campus Photo Identification Card, properly validated by the Associated Students, shall allow students to receive a wide variety of valuable activities and services. (Validation sticker may be purchased during registration, at the Bursar's Office or in Student Affairs (Room 223, College Center, 2nd Floor). For more information on services and benefits offered, please see "Student Affairs and Activities." NOTE: Services are always subject to change.

- A.S./Campus radio station - pending
- Art shows and displays
- Campus publicity and handouts
- CareBank - Emergency Assistance
- Child care services
- Day-to-day business operations of the Associated Students offices
- Free Legal assistance
- Fullerton College Bookstore discounts
- Instructional Funding
- Inter-Club Council
- Membership in any Associated Students funded club/ organization (does not include clubs not choosing to be funded)
- Music group activities - bands, choirs, ensembles
- Out-of-class learning programs - e.g., workshops, seminars, symposiums, trips
- Participation in the Campus newspaper and other student publications (beyond the basic class requirements)
- Pep Band
- Pep Squad
- State and regional student representation
- Student banquets, awards, and recognition programs
- Student Body (A.S.) elections
- Student Center improvements
- Student Government - A.S. Senate membership
- Student research and effort toward improving Food Services, Bookstore services, bus service and parking facilities, instructor accountability, environmental clean-up


## The following benefits are also provided for A.S. Cardholders:

- Discounted admission to all FC Mainstage Theatre events
- Discounted admission to all FC music and art events
- Discounts for up to 80 local businesses
- Discounts to local areas of entertainment, theatres and amusements
- Free admission (or discounts) to all FC A.S. sponsored events including, food event days, Homecoming activities, comedy shows, Festival of Diversity, college hours, educational programs, cultural events, and more
- Free admission to all Home and Away FC athletic events (excluding tournaments)
- Fullerton College "FC Days" discount tickets
- Fullerton College Bookstore discounts


## Associated Students - Benefits

- Discounts at 60-70 local businesses (detailed listing in the A.S. Student Handbook and Academic Planner)
- Discounts to local entertainment areas and amusements (membership cards available in Student Center, Room 214)
- Free A.S. Student Handbook and Academic Planner
- Free admission (or discounted) at Fullerton College Music and Art events
- Free admission (or discounted) to all Fullerton College A.S. sponsored events including food event days, Homecoming activities, comedy shows, Festival of Diversity, college hours, educational programs, cultural events and more
- Free admission (or discounted) to all Fullerton College Mainstage Theatre events
- Free admission (or discounted) to all home Fullerton College athletic events (excluding tournaments)
- Fullerton College "FC Days" discounts on ticket sales for a variety of amusements (\$2/per ticket service charge savings)
- Fullerton College "FC Days" discounts on tickets sales for AMC and Edwards/Regal Cinema
- Fullerton College Bookstore discounts (as listed in the A.S. Student Handbook and Academic Planner)
- Fullerton College Cosmetology discounts (as listed in the A.S. Student Handbook and Academic Planner)
- Photocopy service discount in Student Center (Services subject to change)


## Services Offered and/or Supported by the Associated Students for all Students

- "FC Days" discount tickets
- A.S. CareBank - emergency assistance
- A.S. co-sponsorship funding
- A.S. Legal Clinic - free legal assistance
- A.S. Radio Station - pending
- Art shows and displays
- Athletics
- Campus newspaper and other student publications (beyond the basic class requirements)
- Campus Photo Identification Cards
- Campus publicity, marketing and outreach
- Child Development Center
- Day-to-day business operations of the A.S. offices
- Debit card services at Bookstore
- Instructional funding opportunities
- Inter-Club Council/Club involvement
- Music group activities - bands, choirs, ensembles
- Pep Band
- Pep Squad
- Photocopy service in Student Center
- Play pool, check out cue sticks, cue ball and board games in the Student Center Lounge
- Programs and Special Events - featuring interesting speakers, seminars, plays and entertainment
- Ski discounts at participating ski resorts
- State and regional student representation
- Student banquets, awards and recognition programs
- Student Body (A.S.) elections
- Student Center operations
- Student Government leadership opportunities
- Student research for campus improvements
(Services subject to change)


## Athletics

## History and Tradition

Fullerton College has fielded athletic teams since the founding of the College in 1913. In the more than ninety years since then, the College has developed an overall sports and intercollegiate athletic program that ranks with the very best in nationwide community college circles.

Nicknamed the "Hornets," Fullerton College teams have won more than their share of conference, state, and national championships in a variety of sports. Winning teams have become a tradition at Fullerton in both men's and women's sports.

Community support for intercollegiate athletics at Fullerton has been outstanding. The caliber of coaching, the quality of uniforms and equipment, the training and medical facilities, and the opportunity to play against good competition are superior. Every year scores of Fullerton College graduates are offered scholarships to complete their education and athletic careers at fouryear colleges and universities throughout the country.

## Athletic Conference Membership

Fullerton College is a member of the Southern California Football Assocation. Other association members include: Bakersfield, Canyons, Cerritos, Chaffey, Citrus, College of the Desert, El Camino, Glendale, Grossmont, Hancock, Long Beach, Moor Park, Mt. Sac, Orange Coast, Palomar, Pasadena, Riverside, Saddleback, Santa Ana and Ventura. The Southern California Football Association consists of two divisions: American and National. Fullerton is in the Southern Conference of the National Division along with Grossmont, Long Beach, Orange Coast, Palomar, Saddleback and Santa Ana. Competition will be against teams in the National Division along with teams from the American Division.

Fullerton College is a member of the Orange Empire Conference in the following sports: Men's and Women's basketball, baseball, cross country, soccer, swimming, tennis, track and field, water polo; Women's fast pitch softball, volleyball, golf, and badminton. Members in the Orange Empire Conference consist of Cypress, Fullerton, Irvine, Golden West, Orange Coast, Riverside, Saddleback, Santa Ana, and Santiago Canyon. Conference competition is offered in nine sports for men and eleven sports for women. Each team plays a full schedule of non-conference, as well as conference games, in each sport. Each sport's season concludes with state tournament competition for teams and individuals that have won conference championships.

## Athletic Eligibility Rules

Both men's and women's athletics are governed by uniform eligibility rules adopted by the California Community College Commission on Athletics.

In general, eligibility rules require that all candidates for a team be enrolled in and pass twelve or more units through the semester of competition. Of the 12 credit units, at least nine shall be attempted in courses counting towards the associate degree, remediation, transfer, and/or certification as defined by the college catalog, and are consistent with the student athlete's educational plan. A full-time student returning for his second season of competition must have 1) passed a minimum of 24 units between seasons of that sport, 2) achieved a 2.00 GPA, and 3) an educational plan on file. A student's previous academic record in college does not apply to the student trying out for the first time for an intercollegiate sport.

Students transferring to Fullerton College from another California community college who competed in athletics at that college must complete twelve or more units at Fullerton before gaining athletic eligibility at Fullerton.

Any prospective student athlete with questions about his or her eligibility for sports is advised to confer with the Athletic Directors or with the athletic academic advisor.

## Intercollegiate Athletics for Men

Sports in which Fullerton College fields teams for men include baseball, basketball, cross country, football, soccer, swimming, tennis, track and field, and water polo. Winning is a tradition as teams participate in Mission and Orange Empire Conferences.

## Intercollegiate Athletics for Women

Women's teams at Fullerton College include badminton, basketball, cross country, golf, softball, soccer, swimming, tennis, track and field, volleyball, and water polo. These teams excel in the Orange Empire Conference.

## Aid to Athletes

Athletic scholarships, grants-in-aid, and special inducements or privileges for athletes do not exist at Fullerton College in accordance with State rules governing community college athletics. Student athletes are attracted to Fullerton College for its excellent educational opportunities, its tradition for winning teams, the outstanding coaching staff, and the opportunity to participate and compete as freshmen and sophomores on a level that often leads to athletic scholarship offers from four-year colleges after graduation from Fullerton.

The college provides the student athlete with uniforms and equipment, meals, lodging, travel expenses on team trips, and banquets and awards concluding the season. The college maintains a placement office as a service to any student seeking part-time or full-time employment.

## Pep Squad

In the Spring of each year, open-competition tryouts are held to select a Pep Squad and dance team from incoming firstsemester students and returning sophomores. The Pep Squad members rehearse during the summer in preparation for performances at school athletic events and events in a variety of local and national performances. These performances, as well as enrollment in PE 179 F Pep Squad Training, are mandatory. For information, contact the Physical Education/Athletics Division at (714) 992-7383.

## Admission to Athletic Events

Student athletes are given a pair of general admission tickets for use by their parents or friends for each home game in which they are listed to play. For sports in which the student athlete is not a team member, he/she will be admitted free to all scheduled athletic events played at home.

Gate receipts from the intercollegiate athletic program, including facility rentals, are used to help offset the cost of the athletic program.

## Campus Photo Identification Card

Services that require a Campus Photo ID Card are the Library, Academic Support Center, labs in the Fine Arts Division, Financial Aid, Bookstore to make purchases by check or charge, Bursar's to obtain refunds, to pick-up financial aid checks and other areas where needed. Campus ID Cards are the preferred source of photo identification when setting up campus lab accounts. The Campus ID Card is purchased for $\$ 2.50$ only once during a student's tenure at Fullerton College. A current semester validation sticker should be obtained each term. A current semester printout and valid photo ID must be shown to obtain the Campus ID Card and/or validations(s). If you do not have a valid photo ID, you may receive verification in A\&R, bring your birth certificate, or obtain a driver's license/photo ID from your nearest DMV. A free A.S. Student Handbook and Academic Planner will be provided as available.

## Honor Societies

## Alpha Gamma Sigma

Alpha Gamma Sigma, California Community College Scholarship Honor Society, was founded in 1926 through the efforts of William T. Boyce, then Dean of the College. Among the first to be chartered, the college's chapter is designated Epsilon.

Permanent membership in Alpha Gamma Sigma is awarded to students who meet either of the following criteria:

1. Cumulative 3.25 GPA or higher with 60 units completed (30 units at Fullerton College) and active membership in Alpha Gamma Sigma for two (2) or more semesters; or,
2. Cumulative 3.50 GPA or higher with 60 units completed (30 units at Fullerton College) with one (1) semester of active membership in Alpha Gamma Sigma.

Students may pick up an application for permanent membership in the Student Affairs Office. See section on Honors for Scholarship.

## Phi Theta Kappa

Phi Theta Kappa International Honor Society is the national scholastic honor organization for community colleges. In order to achieve Life Membership in Phi Theta Kappa International Honor Society, a student must have completed at least 12 hours of coursework leading to a degree and maintain a 3.25 GPA. For more information, contact Student Affairs (Building 1409).

## Men and Women of Distinction

Each year the Student Affairs Office, through the assistance of a campus wide committee, selects up to 15 "Women of Distinction" and a "Woman of the Year" and up to 15 "Men of Distinction" and a "Man of the Year." During this awards program, the top 30 students are honored for their outstanding achievement in such diverse fields as music, communications, theater, intercollegiate athletics, club activities, student government, individual service to the college and or community, and outstanding scholarship within a given department. Additionally, two outstanding service awards shall be granted to one Man of Distinction finalist and one Woman of Distinction finalist from the Associated Students.

The Awards Program is held in the spring and represents the highest honor a student may receive while at Fullerton College. The Women of Distinction receive honorary membership in Alpha Gamma Eta, and the Men of Distinction receive honorary membership in Mu Omicron Delta.

For more information, contact the Student Affairs Office, Room 223, College Center, 2nd Floor, (714) 992-7095.

## Student Affairs

College Center - Room 223, 2nd Floor - (714) 992-7095 stuaff.fullcoll.edu

The office of Student Affairs provides leadership opportunities and practical learning experiences beyond the classroom. Student Affairs provides "hands on" experiences which complement students' educational, personal and professional goals, thus enhancing student success. Through a warm and welcoming atmosphere, Student Affairs offers meaningful opportunities for campus and community involvement, recognition of student achievement and a variety of specialized services of benefit to the campus community. Additionally, Student Affairs is a major catalyst of college information and direction regarding procedures and events.

Information regarding campus events scheduling, student rights, student government, clubs and organizations, student discounts, "FC Days" ticket sales and a wide variety of programs, including Commencement and Men and Women of Distinction are coordinated by the Student Affairs staff. Literature to be distributed must be approved by the Director of Student Affairs. Hours vary; please check with the office.

## Student Center

College Center, Room 214, 1st Floor - (714) 992-7118
The office of Student Affairs provides leadership opportunities and practical learning experiences beyond the classroom. The focus of student life at Fullerton College is located at the College Center.

The College Center contains the following:

- International Student Center (Room 220)
- Associated Students - Student Government Offices (Room 223)
- Cadena/Transfer Center (Room 212)
- Student Affairs Offices (Room 223)
- Student Center Lounge (Room 214)
- Workforce Center (Bldg 2000, Room 2002)
- Club Room (Room 223)
- Facilities for Meetings and Events

The Student Center Lounge allows students to play video games, shoot pool, watch big screen TV, study or just relax with friends. The Student Center Lounge is open from 8:00 am to 8:00 pm Monday through Thursday, and 8:00 am-2:00 pm on Fridays. Campus Photo ID Cards are produced and validated in the Student Center Lounge during specific hours. NOTE: Hours are always subject to change.

Announcements are posted in this complex concerning student housing, transportation, student activities, club activities, general information of interest to students, upcoming events and many other services available to students and staff.

## Student Offices Eligibility Requirements

Student leadership is recognized as a most important facet of decision-making at Fullerton College whether it be for planning Associated Student projects or participation with administrators and faculty in overall college development. It is important to the student body, the college and the individual student that student leaders do satisfactory work in their courses of study and are able to carry sufficient units to be true representatives of their constituents. There are three phases to be considered for establishing and maintaining one's eligibility. They are:
I. Previous School Record
II. The Semester of Candidacy
III. The Semester While In Office

To review the minimum eligibility requirements, please contact the Office of Student Affairs (714) 992-7248, or visit the Student Affairs website: stuaff.fullcoll.edu.

## Student Publications

The Hornet newspaper, an award-winning publication, is published weekly by journalism students. The newspaper is entirely written, edited, designed and desk-top published by students. Photographs, illustrations, graphs, and cartoons, which appear in the newspaper, are all student efforts. Students also sell and design advertising.

The Torch Magazine is published each semester by journalism students. All phases of magazine production - writing, editing, layout/design, and photography, line illustration and advertising, are accomplished by students. Articles and photos combine to publicize the positive aspects of Fullerton College. The magazine is used on and off campus as an informative, marketing tool.

The Hornet has won many state and national awards, including the Gold Crown, the top national honor presented by Columbia University's Scholastic Press Association, as well as honors from the Journalism Association of Community Colleges (JACC).

Torch Magazine has also received numerous awards from the JACC for outstanding journalism.



## Academic Requirements

Catalog Rights

Students who have maintained continuous enrollment have the option of completing the program requirements in effect at the time they first enrolled at Fullerton College or any subsequent catalog year, up to and including the semester in which the program requirements were completed.

These rights are maintained through continuous enrollment. Continuous enrollment is defined as being enrolled at Fullerton College for at least one class in every academic year of sufficient duration as to receive a letter grade on a transcript.

## General Education Statement of Philosophy

General Education Requirements at Fullerton College are designed to introduce students to the variety of means through which people comprehend the modern world. They reflect the conviction of this College that those who receive their degrees must possess in common certain basic principles, concepts, and methodologies both unique to and shared by the various disciplines. College-educated persons should be able to use this knowledge when evaluating and appreciating the physical environment, the culture, and the society in which they live. Most importantly, these requirements should lead to better selfunderstanding and active involvement in examining values inherent in proposed solutions to major social problems.

The subject matter presented in General Education courses at Fullerton College is designed to be general, broad, and frequently introductory rather than specialized, narrow, or advanced. These General Education courses form a pattern of learning experiences designed to provide educational opportunities that:

1. Offer instruction and training in the scientific method of problem solving while gaining knowledge in the biological, physical, and environmental sciences.
2. Provide an atmosphere for the understanding of self and the desire to pursue self-development through the use of the social, political, economic, historical, and behavioral components of human interaction.
3. Foster an appreciation of the cultural heritage as illustrated in language, literature, philosophy, and fine arts.
4. Develop reading, writing, speaking, listening, analytical thinking, mathematics, and computational and technical skills necessary for the acquisition and use of knowledge.

## Mathematics Proficiency Testing

Students who have previously attained an Associate's Degree where MATH 040 F or equivalent was not required, and who wish to complete general education requirements for an Associate's Degree at Fullerton College, must either successfully complete MATH 040 F , or score at an appropriate level on the Fullerton College Compass Math Placement Test within the last two years.

Students who have previously attained a degree whose mathematics requirement has no equivalent at Fullerton College may have the mathematics requirement waived by scoring at an appropriate level on the Fullerton College Compass Math Placement Test.

In either case, no units are given for passing the proficiency exam, no units are posted to the student's permanent record, nor is the total number of units required to complete the AA or AS degree lowered. If mathematics proficiency is granted under the guidelines, three additional units from Areas $\mathrm{A}, \mathrm{B}, \mathrm{C}$, or D are needed to meet the 24 -unit minimum general education requirement. In addition, students who satisfy the General Education Area B, B2 category requirement by the proficiency examination are still required to satisfy the 60-unit requirement for graduation.

The Compass Math Test may be taken only once in an attempt to waive the graduation requirement. Students wishing to take this examination should contact the Assessment/ Orientation Center.

## Graduation

To participate in the current year's commencement ceremony, students must apply for graduation before the deadline posted in the current class schedule. Applications for graduation are available online or in the Admissions and Records Office and the Counseling Center.

If a student has taken courses at other colleges, official transcripts from all colleges must be on file in the Admissions and Records Office prior to graduation evaluation.

A maximum of 9 upper division units can be counted as elective units. Units will not be counted toward the major. Grades from upper division courses will not be used when calculating the GPA.

Commencement exercises are held each year at the end of the Spring semester. Detailed information about the ceremony will be sent to all graduation candidates in early May. Diplomas are mailed approximately three months after graduation.


## ASSOCIATE DEGREE GENERAL EDUCATION REQUIREMENT FULLERTON COLLEGE 2009-2010

## Multicultural Education Requirement

Beginning Fall Semester 1996, to meet this requirement, every student must complete one course from the following:
AJ 278 F Multicultural Issues in Administration of Justice
ANTH 102 F or
Cultural Anthropology or
ANTH 102HF Honors Cultural Anthropology (beg F 06)
ANTH 105 F Language and Culture (beg F 99)
ANTH 107 F The Anthropology of Magic, Witchcraft and Religion
BUS 131 F International Business (beg F 98)
BUS 242 F International Business Law
CDES 110 F Anti-Bias Perspective Seminar
CDES 201 F Child in Home and Community (beg F 99)
CRTV 126AF
CRTV 126BF
DANC 210 F
ENGL 218 F
ENGL 224 F
ENGL 225 F
ENGL 239 F
ENGL 243 F or
ENGL 243HF
ENGL 247 F
World Cinema to 1945 (beg F 00)
World Cinema 1946 to the Present (beg F 00)
Multicultural Dance in the U.S. Today (beg F 03)
California Writers (beg F 01)
World Literature through the Early Modern Period
World Literature since the Early Modern Period
Survey of Children's Literature (beg F 97)
Folklore and Mythology or
Honors Folklore and Mythology (beg F 06)
Voices of America: Studies in Multicultural Literature
ETHS 101 F American Ethnic Studies
FASH 244 F
FOOD 130 F
GEOG 100 F or
Ethnic Costume
Cultural Aspects of Food
Global Geography or
GEOG 100HF
GEOG 160 F
HIST 110 F or
HIST 110HF
HIST 111 F or
HIST 111HF
HIST 112 F or
HIST 112HF
HIST 113 F or
HIST 113HF
HIST 270 F
MKT 205 F
PE 250 F
PHIL 105 F or
PHIL 105HF
PHIL 270 F
PSY 131 F
PSY 145 F
SOC 101 F or
SOC 101HF
SOC 102 F
SPAN 206 F
SPCH 120 F
Honors Global Geography (beg F 97)
Cultural Geography
Western Civilization I (beg F 00) or
Honors Western Civilization I (beg F 06)
Western Civilization II (beg F 00) or
Honors Western Civilization II (beg F 06)
World Civilizations I (beg F 99) or
Honors World Civilizations I (beg F 99)
World Civilizations II (beg F 99) or
Honors World Civilizations II (beg F 99)
History of Women in the United States (beg F 02)
Multicultural Marketing in USA (beg F 03)
Sport and the United States Society (beg F 99)
World Religions (beg F 98) or
Honors World Religions (beg F 98)
Introduction to Asian Religions (beg F 98)
Cross-Cultural Psychology (beg F 03)
Child Psychology (beg F 97)
Introduction to Sociology or
Honors Introduction to Sociology (beg F 03)
Social Problems (beg F 99)
Introduction to Latin American Literature (beg F 03)
Intercultural Communication
THEA 108 F Multicultural Perspectives in American Theatre (beg F 03)

## A student may use the Multicultural Education course listed above to also meet a major or general education requirement for the Associate degree.

## Reading Graduation Requirement

Proficiency in reading may be satisfied by one of the following:

1) A satisfactory score on the reading component of the placement test or a reading proficiency test approved by the Reading Department;
2) A passing grade in READ 096 F (formerly READ 056BF), READ 142 F, any course in the IGETC (1B) or CSU (A3) Critical Thinking category; OR
3) A passing grade in ESL 185 F .

| FULLERTON COLLEGE 2009-2010 <br> Courses Accepted by ABA for Paralegal General Education |  |  |
| :---: | :---: | :---: |
| Associate in Science Degree General Education <br> Twenty-four (24) units total minimum requirement - Three (3) units in each of the following eight (8) sub-categories NOTE: Courses in Bold were added this year. |  |  |
| Legend: C = Completed; IP = In Progress; R = Remaining | C ${ }^{\text {IP }}$ | R |
| AREA A: LANGUAGE AND RATIONALITY (6 units) <br> A1. - Written Communication (3 units): <br> ENGL 100 F or 100HF |  |  |
| A2. - Analytical Thinking (3 units): <br> ENGL 103 F or 103 HF , 104 F; JOUR 110 F; MATH 120 F or 120HF, PHIL 170 F, 172 F; READ 142 F; SPCH 100 F, 105 F, 120 F, 124 F, 135 F |  |  |
| AREA B: NATURAL SCIENCES AND MATHEMATICS (6 units) <br> B1. - Physical Sciences and Life Sciences (3 units) <br> Physical Sciences: CHEM 100 F, 101 F, 103 F, 107 F, 111AF; ESC 100 F, $100 \mathrm{LF}, 102$ F, 103 F, 104 F, 105 F, 106 F, 116 F, 116LF, 120 F, 130 F or 130HF, 190 F; GEOG 102 F; PHSC 102 F, 103AF, 103BF; PHYS 130 F, 205 F, 221 F; TECH 088 F <br> Life Sciences: ANTH 101 F or 101 HF ; BIOL 101 F or $101 \mathrm{HF}, 102 \mathrm{~F}, 104 \mathrm{~F}, 109 \mathrm{~F}, 141 \mathrm{~F}, 170 \mathrm{~F}, 222 \mathrm{~F}, 274 \mathrm{~F}$; ENVS 105 F, 105LF, 126 F; NUTR 210 F |  |  |
| B2. - Mathematics (3 units) MATH 040 F or higher |  |  |
| AREA C: ARTS AND HUMANITIES (6 units) <br> C1. - Visual Arts, Music, Theatre and Dance (3 units) <br> ART 110 F, 112 F, 113 F, 114 F, 115 F, 116 F, 212 F, 213 F; CRTV 121 F, 126AF, 126BF; ENGL 205 F or 075 F, 206 F or 076 F; FASH 242 F, 244 F; IDES 180 F; MUS 113 F, 114 F, 115 F, 116 F, 117 F, 118 F, 119 F; THEA 104 F, 109 F |  |  |
| C2. - Literature, Philosophy, Religion and Foreign Language (3 units) <br> CHIN 101 F, 102 F; ENGL 102 F or 102HF, 105 F, 203 F or 073 F, 204 F or 074 F, 207 F or $077 \mathrm{~F}, 210 \mathrm{~F}$, $211 \mathrm{~F}, 212 \mathrm{~F}, 214 \mathrm{~F}$ or $094 \mathrm{~F}, 218 \mathrm{~F}$ or $078 \mathrm{~F}, 221 \mathrm{~F}, 222 \mathrm{~F}, 224 \mathrm{~F}, 225 \mathrm{~F}, 234 \mathrm{~F}$ or $234 \mathrm{HF}, 239 \mathrm{~F}, 243 \mathrm{~F}$ or 243 HF or $093 \mathrm{~F}, 245 \mathrm{~F}$ or $095 \mathrm{~F}, 246 \mathrm{~F}$ or $096 \mathrm{~F}, 247 \mathrm{~F}$ or $097 \mathrm{~F}, 248 \mathrm{~F}, 249 \mathrm{~F}, 250 \mathrm{~F}, 251 \mathrm{~F}$; FREN 101 F , 102 F, 203 F, 204 F; GERM 101 F, 102 F, 203 F, 204 F; ITAL 101 F, 102 F; JAPN 101 F, 102 F, 203 F, 204 F; PHIL 100 F or $100 \mathrm{HF}, 101 \mathrm{~F}, 105 \mathrm{~F}$ or $105 \mathrm{HF}, 135 \mathrm{~F}, 160 \mathrm{~F}, 195 \mathrm{~F}$; RUSS $101 \mathrm{~F}, 102 \mathrm{~F}$; SPAN 101 F or 101 HF , 102 F or $102 \mathrm{HF}, 201$ F, 203 F, 204 F |  |  |
| AREA D: SOCIAL AND BEHAVIORAL SCIENCES (6 units) <br> D1. - Social, Political and Economic Institutions (3 units) <br> ANTH 107 F, 209 F; BUS 131 F, 242 F; ECON 101 F or 101HF; ETHS 101 F, 129 F, 131 F, 140 F, 170 F, 171 F; GEOG 100 F or 100 HF ; HIST 110 F or $100 \mathrm{HF}, 111 \mathrm{~F}$ or $111 \mathrm{HF}, 112 \mathrm{~F}$ or $112 \mathrm{HF}, 113 \mathrm{~F}$ or $113 \mathrm{HF}, 127 \mathrm{~F}, 154 \mathrm{~F}$, $162 \mathrm{AF}, 162 \mathrm{BF}, 170 \mathrm{~F}$ or $170 \mathrm{HF}, 171 \mathrm{~F}$ or $171 \mathrm{HF}, 270 \mathrm{~F}$; POSC 100 F or $100 \mathrm{HF}, 120 \mathrm{~F}, 150 \mathrm{~F}, 200 \mathrm{~F}, 215 \mathrm{~F}$, 216 F, 220 F, 230 F; SOC 201 F, 285 F, 292 F |  |  |
| D2. - Social Behavior and Self-Understanding (3 units) <br> ANTH 102 F or 102HF, 105 F; CDES 120 F, 140 F, 173 F, 201 F, 202 F; COUN 163 F; GEOG 160 F; PSY 101 F or $101 \mathrm{HF}, 110$ F, 120 F, 131 F, 139 F; SOC 101 F or $101 \mathrm{HF}, 102 \mathrm{~F}, 225 \mathrm{~F}$ or 225 HF , 275 F or 275 HF ; WMNS 100 F |  |  |
| GRADUATION REQUIREMENT FOR ASSOCIATE OF SCIENCE DEGREE |  |  |
| 2. Completion of $\mathbf{2 4}$ units of general education as shown above (note this is different from the standard AA/AS degree general education list for other majors at Fullerton College) OR 39 units as stipulated by the CSU General Education Certification requirements OR 37-39 units as stipulated by the IGETC requirements. Courses appearing in more than one Area may only be counted in one Area. <br> 3. Completion of one (1) unit of physical education activity; or PE 243 F or PE 266 F . The exception for 21 year-olds no longer applies. <br> 4. Completion of the Multicultural requirement - this can also count as a GE course (see below). <br> 5. Completion of MATH 040 F or higher satisfies the Math graduation requirement. <br> 6. Completion of additional units will be needed to meet the total of at least $\mathbf{6 0}$ degree applicable units required for graduation. An overall GPA of $\mathbf{2 . 0}$ (or better) is required. |  |  |
| Every student must complete the Multicultural Education Requirement to graduate with an AS degree. Refer to the current college catalog for courses that meet this requirement. Note: You may use the same course to meet both the Multicultural and a general education requirement as long as the course is also on the above General Education list for the Paralegal AS degree. For example, SOC 101 F meets both the Multicultural and a GE requirement for D2. |  |  |
| Reading Requirement <br> Test into Reading 142 F on the Fullerton College placement test or a reading test approved by the Reading Departm grade in Reading 096 F, Reading 142 F, any course in IGETC/CSU Critical Thinking Category, or ESL 18 |  |  |

## PARALEGAL STUDIES 2009-2010

## Associate of Science (AS) Degree

An ABA-approved curriculum leading to an ASSOCIATE OF SCIENCE (AS) DEGREE and entry-level employment in a paraprofessional capacity as an assistant to an attorney in private practice, in a governmental agency, or in private industry. This degree requires $\mathbf{2 7}$ units, of which $\mathbf{1 8}$ are in required courses. An additional $\mathbf{9}$ units must be chosen from the restrictive electives listed below. A minimum grade of " $\mathbf{C}$ " is required in all required and restrictive elective courses.
Paralegals may perform many tasks under the supervision of a licensed attorney including preparation of forms and pleadings, interviewing clients, researching and writing legal documents, managing in a law office, and preparing word processing forms and documents. This program is not intended to prepare students for the practice of law. The Paralegal Studies program is approved by the American Bar Association (ABA).

## Paralegal Studies Certificate

PARALEGAL STUDIES CERTIFICATE requires the completion of $\mathbf{3 0}$ units of which $\mathbf{1 8}$ are in the required courses below. An additional 12 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course. At least half of the units must be completed at Fullerton College. (Students must also possess an AA, BA or higher degree from a regionally accredited college.) All students with an associate degree must have their transcripts evaluated for General Education requirements as listed in the GE requirements for an AS in Paralegal Studies.
Because we are an American Bar Association approved program, students who wish to transfer Paralegal Studies units earned at another regionally accredited institution into the Fullerton College Paralegal Program may only transfer in a maximum of six (6) Restrictive Electives, and must obtain prior permission from the Paralegal Department Coordinator or the Business Division Dean.

```
Required Courses (15 - 18 units; 15 units for students prior to Fall '06, 18 units for students beginning Fall '06 )
PLEG 101 F Introduction to Paralegal Studies (3)
PLEG 104 F Introduction to Legal Research and Legal Terminology (3) (formerly PLEG 103 F)
PLEG 105 F* Introduction to Legal Writing (3) (formerly PLEG 102 F)
PLEG 116 F Computers in the Law Office I (3)
PLEG 201 F* Civil Litigation I (3)
PLEG 202 F* Civil Litigation II (3)
Restrictive Electives (Take any 9-12 units; 9 units for students beginning Fall `06, 12 units for students prior to Fall `06)
PLEG 090 F Contemporary Issues in the Law (1-3)
PLEG 203 F* Personal Injury (3)
PLEG 204 F* Family Law (3)
PLEG 205 F* Probate, Wills, and Trusts (3)
PLEG 206 F* Bankruptcy Law and Procedure (3)
PLEG 207 F* Computer Assisted Legal Research (3)
PLEG 208 F* Worker's Compensation Law (3)
PLEG 209 F* Criminal Law and Procedure (3)
PLEG 210 F* Internship Paralegal Studies (1-4)
PLEG 211 F* Real Property Law and Procedure (3)
PLEG 212 F* Medical Records Analysis for the Paralegal (1.5)
PLEG 213 F* Employment and Labor Law (3)
PLEG 214 F* Contract Law Procedure (3)
PLEG 215 F* Discovery in the Electronic Age (3)
PLEG 216 F Computers in the Law Office II (3)
PLEG 217 F* Immigration Law (3)
PLEG 218 F Entertainment and Sports Law (3)
PLEG 219 F* Intellectual Property (3)
PLEG 220 F* Elder Law (1.5)
PLEG 225 F Law Office Management (3)
```


## Recommended Electives

BUS 241AF Business Law (3)
CIS 100 F or Introduction to Personal Computer Applications (3) or
CIS 101 F Integrated Software Applications for Windows (Microsoft Works) (3)
WP 020 F or $\quad$ Word Processing (Word for Windows - Beginning) (1.5) or
WP 021 F or Word Processing (Word for Windows - Advanced) (1.5) or
WP 023 F or $\quad$ Word Processing (WordPerfect for Windows - Beginning) (1.5) or
WP 024 F Word Processing (WordPerfect for Windows - Advanced) (1.5)

* Requires completion of prerequisites before enrollment.

Students will have to demonstrate keyboard proficiency of 45 words per minute. Testing will occur in the Business Division office.
The Paralegal Studies major requires restricted general education.
See the reverse side of this sheet for a list of the general education courses approved by the ABA.

## PARALEGAL STUDIES 2009-2010 ASSOCIATE IN SCIENCE DEGREE FULLERTON COLLEGE

** Program plan will depend on placement test results. This program could be adjusted. **

## DEGREE-ORIENTED PARALEGAL STUDENTS:

| First Semester: | Units: |
| :---: | :---: |
| PLEG 101 F Introduction to Paralegal Studies | 3 |
| PLEG 104 F Legal Research and Terminology | 3 |
| ENGL 100 F | 3 |
| Beginning Computer or Typing Course (if necessary) | 3 |
| Area B1 (Physical Sciences and Life Sciences) | 3-4 |
| Area C1 (Visual Arts, Music, Theatre and Dance) | 3 |
| Total: | 18-19 |
| Second Semester: | Units: |
| PLEG 105 F Introduction to Legal Writing (1) | 3 |
| PLEG 116 F Computers in the Law Office | 3 |
| Area A2 (Analytical Thinking) | 3 |
| Area D1 (Social, Political and Economic Institutions) | 3 |
| Math 40 F | 4 |
| Total: | 16 |
| Third Semester: | Units: |
| 9 Units of Restrictive Electives (090 and 200 level courses*) | 9 |
| Area C2 (Literature, Philosophy, Religion and Foreign Language) | 3-5 |
| Area D2 (Social Behavior and Self-Understanding) | 3 |

*All 090 and 200 level classes (except 201, 202 \& 216, 218 and 225) require the successful completion of PLEG 101 and 104. PLEG 105 require a minimum completion of PLEG 101 F, 104 F and ENGL 100 F before a student is allowed to register.
Please Note: PLEG 201 F, 202 F \& 210 F have additional requirements. See below for those requirements.

| Total: | 15-17 |
| :--- | :--- |
| Fourth Semester: | Units: |
| PLEG 201 F Civil Litigation I (2) | 3 |
| PLEG 202 F Civil Litigation II (2) | 3 |
| P.E. Activity |  |
| Additional PLEG or G.E. Course | 1 |
| Optional: Students are encouraged to take | $1-4$ |
| $1-4$ units of PLEG 210 F (Internship Course) |  |
| Total: | 10 or 11-14 |

(1) Upon successful completion of prerequisites: ENGL 100 F, PLEG 101 F, \& PLEG 104 F.
(2) Upon successful completion of prerequisites: PLEG 101 F, PLEG 104 F, PLEG 105 F with a grade of 'C' or better.

In choosing General Education courses, make sure one course meets the Multicultural Requirement.
NOTE: - Students must have a minimum of 30 units for the certificate.

- Students will have to demonstrate keyboard proficiency of 45 words per minute. Testing will occur in the Business Division office.


## PARALEGAL STUDIES 2009-2010 CERTIFICATE PROGRAM FULLERTON COLLEGE

[^1] CERTIFICATE-ORIENTED PARALEGAL STUDENTS:
First Semester:
Units:
PLEG 101 F Introduction to Paralegal Studies ..... 3
PLEG 104 F Legal Research and Terminology ..... 3
ENGL 100 F (prerequisite for other courses) ..... 3
Beginning Computer or Typing Course (if necessary) ..... 3
Total: ..... 12
Second Semester:Units:
PLEG 105 F Introduction to Legal Writing (1) ..... 3
PLEG 116 F Computers in the Law Office ..... 3
Total:6
Third Semester: Units:
12 Units of Restrictive Electives (090 and 200 level courses*)12* All 090 and 200 level classes (except 201, 202 \& 216, 218 and 225) require the successful completion of PLEG101 and 104. PLEG 105 require a minimum completion of PLEG 101 F, 104 F and ENGL 100 F before a student
Please Note: PLEG 201 F, 202 F \& 210 F have additional requirements. See below for those requirements.is allowed to register.
Total: ..... 12
Fourth Semester:
Units:
PLEG 201 F Civil Litigation I (2) ..... 3
PLEG 202 F Civil Litigation II (2) ..... 3
Additional PLEG or G.E. Course ..... 1-4
Optional: Students are encouraged to take1-4 units of PLEG 210 F (Internship Course)
Total: ..... 7 or 10
(1) Upon successful completion of prerequisites: ENGL 100 F, PLEG 101 F, \& PLEG 104 F.
(2) Upon successful completion of prerequisites: PLEG 101 F, PLEG 104 F, PLEG 105 F, PLEG 116, ENGL 100 F, with a grade of a ' $C$ ' or better.

NOTE: - Students must have a minimum of 30 units for the certificate.

- Students will have to demonstrate keyboard proficiency of 45 words per minute. Testing will occur in the Business Division office.


## Graduation Requirements

The Associate in Arts or the Associate in Science degree will be granted upon the completion of 60 degree applicable units of work and fulfillment of the following specific requirements:

## 1. Scholarship Requirement

A cumulative grade-point average of 2.00 ("C") in all coursework attempted.

## 2. Residence Requirement

a. A minimum of 24 units accumulated during two or more semesters must be completed at Fullerton College; or
b. The last 12 units prior to awarding the degree must be completed at Fullerton College.

## 3. Major Requirement

a. A student must achieve a grade of " $C$ " or better in each course attempted that is counted for the major or area of emphasis.

## 4. General Education Requirements

a. 24 units as stipulated by the Fullerton College graduation requirements - a minimum of three (3) units in each of the eight (8) sub-categories; or
b. 39 units as stipulated by the CSU general education certification requirements; or
c. 37-39 units as stipulated by the IGETC (Intersegmental General Education Transfer Curriculum) requirements.
d. Courses appearing in more than one area may only be counted in one area.
NOTE: General Education courses taken at either Fullerton or Cypress College will satisfy Associate Degree General Education Graduation requirements regardless of the college within the District from which he/she graduates.

## 5. Physical Education Requirement

a. One unit of Physical Education Activity; or
b. Completion of PE 243 F Stress Management through Physical Activity; or PE 266 F Physical Fitness as a Lifelong Concept.

## 6. Multicultural Education Requirement

Beginning Fall Semester 1996, to meet this requirement every student must complete one course from the following list:

AJ 278 F, ANTH 102 F or ANTH 102HF (Beg F 06), ANTH 105 F (Beg F 99), ANTH 107 F, BUS 131 F (Beg F 98), BUS 242 F, CDES 110 F, CDES 201 F (Beg F 99), CRTV 126AF (Beg F 00), CRTV 126BF (Beg F 00), DANC 210 F (Beg F 03), ENGL 218 F (Beg F 01), ENGL 224 F, ENGL 225 F, ENGL 239 F (Beg F 97), ENGL 243 F or ENGL 243HF (Beg F 06), ENGL 247 F, ETHS 101 F, FASH 244 F, FOOD 130 F, GEOG 100 F or GEOG 100HF (Beg F 97), GEOG 160 F , HIST 110 F (Beg F 00) or HIST 110HF (Beg F 06), HIST 111 F (Beg F 00) or HIST 111HF (Beg F 06), HIST 112 F (Beg F 99) or HIST 112HF (Beg F 99), HIST 113 F (Beg F 99) or HIST 113HF (Beg F 99), HIST 270 F (Beg F 02), MKT 205 F (Beg F 03), PE 250 F (Beg F 99), PHIL 105 F (Beg F 98) or PHIL 105HF (Beg F 98), PHIL 270 F (Beg F 98), PSY 131 F (Beg F 03), PSY 145 F (Beg F 97), SOC 101 F or SOC 101HF (Beg F 03), SOC 102 F (Beg F 99), SPAN 206 F (Beg F 03), SPCH 120 F, THEA 108 F (Beg F 03)

A student may use the Multicultural courses listed above to also meet a major or general education requirement for the Associate Degree. All students graduating after the year 2001 (beginning 2002) will be required to complete the Multicultural graduation component, no matter how their previous catalog rights were defined.

## 7. Reading Requirement

Beginning Fall 1997, students must satisfy the following reading proficiency requirement. Proficiency in reading may be satisfied by one of the following:
a. A satisfactory score on the reading component of the placement test or a reading proficiency test approved by the Reading Department or
b. A passing grade in READ 096 F OR READ 142 F OR any course in the IGETC (1B) or CSU (A3) critical thinking category OR ESL 185 F .

All students graduating after the year 2002 (beginning 2003) will be required to complete the reading requirement, regardless of how their previous catalog rights were defined.

## Multiple Associate Degrees

1. Students may earn an Associate Degree from Fullerton College after having received a baccalaureate degree or an associate degree from another accredited US institution (under one of the following regional institutional accrediting organizations: MSA, NASC, NCA, NWCCU, NEASC-CIHE, SACS, WASC) upon completion of the following:
a) a minimum of 12 units in residence (in any subject area unless there are residency requirements for the specific major, see major requirements in the Fullerton College Catalog for details),
b) all requirements in the major field of study, and
c) general education and graduation requirements for which equivalents have not been completed.
2. Students may earn more than one Associate Degree from Fullerton College upon completion of the following:
a) at least 12 units unique to each degree are earned in residence (in any subject area unless there are residency requirements for the specific major, see major requirements in the Fullerton College Catalog for details),
b) all major requirements for each degree to be earned, and
c) all general education and graduation requirements.

Each Associate's Degree from Fullerton College will be awarded on a separate diploma.

Effective for Fall 2007 and thereafter, grades of " $C$ " or better are required for all courses to be counted towards a major (students with "Ds" in major courses who were admitted prior to Fall 07 and continuously enrolled each year since should consult a counselor about catalog rights).



## Transferability of Courses

Community colleges, including Fullerton, offer curriculums paralleling the first two years of Bachelor's degree programs as well as those preparing for employment at the completion of the A.A./A.S. degree. These categories are not mutually exclusive, however, as many courses included in occupational programs are also transferable to four-year colleges. For this and other reasons the definition of a transfer course is somewhat complicated.

First it needs to be said that each four-year institution decides for itself on the acceptance of courses from other colleges. In general, the policy, whether liberal or restrictive, will apply equally to entrants from community colleges and from other four-year colleges with two exceptions. All four-year colleges impose a ceiling (between 60 and 70 units) on the acceptance of community college credit, and all recognize that community colleges offer remedial and vocational courses usually not intended for transfer.

In this context a community college course can be "transferable" in any one of the following ways:

1. As meeting lower-division requirements in the major. To be accepted for this purpose, the course must correspond almost exactly to the comparable course at the four-year college in content, prerequisites, and unit value.
2. As applying to general education requirements. Some fouryear institutions are fairly flexible in accepting courses for this purpose, provided they are in the proper category; e.g. physical science, social science, fine arts. In many cases, however, the institution will accept only courses paralleling its own lower-division offerings. A special case here is the 39-unit block of general education which a community college certifies to the California State University System. In this case any course listed for this purpose by the community college will be accepted by any California State University as applicable to the 39-unit block, provided the applicable category (natural science, social science, humanities, basic subjects) has been completed and the student has requested general education certification on transcript request.
3. As elective credit. A course not acceptable as part of a major, support for the major, or as general education may be accepted as elective credit. This signifies that it will apply to the total-unit requirement for the Bachelor's degree. Fouryear institutions are generally liberal in accepting courses for elective credit, but almost certainly will exclude avowedly vocational courses or specialized courses which they do not offer.
4. For subject credit only. Acceptance of a course for subject credit only, without unit credit, usually takes place in one of the following situations:
a. The student has accumulated as many units as the fouryear college will accept from a community college.
b. The corresponding course in the four-year college is upper-division.
c. The course is a prerequisite for a course in the student's major, but the prerequisite is normally completed in high school.

In summary, then, the question of whether a course is transferable can be accurately answered only with reference to a particular four-year college and the purpose for which the course will be used. Checking the four-year college catalog in the Fullerton College Counseling Resource Center or the Cadena/Transfer Center as well as consultation with a counselor are recommended. A counselor can give you up-to-date information.

## Transfer Courses for the California State University

The campuses of the California State University system have agreed to accept, for the purposes of determining eligibility for upper-division transfer status, those courses classified by each community college as transferable. See "Announcement of Courses" section for transfer number and designation of course information.

It should be noted that acceptance of these courses by a CSU campus does not signify that they will necessarily be applied to the requirements of a particular major or to general education requirements. Courses may be accepted as electives only toward the Bachelor's degree. Students should consult a counselor for information on major requirements and the following pages for courses applicable to CSU and UC general education requirements.


# General Education Breadth Requirements for College and University 


#### Abstract

THE INFORMATION CONTAINED IN THIS SECTION OF THE CATALOG IS CORRECT TO THE BEST OF OUR KNOWLEDGE AT THE TIME OF PRINTING. IT IS STRONGLY RECOMMENDED THAT STUDENTS CONSULT WITH A COUNSELOR BEFORE MAKING FINAL ACADEMIC/ VOCATIONAL DECISIONS. FOR TRANSFER INFORMATION REGARDING SPECIFIC SCHOOLS OR PROGRAMS, EITHER A FULLERTON COLLEGE COUNSELOR OR THE COLLEGE OR UNIVERSITY IN QUESTION CAN BE CONSULTED FOR MORE DETAILED INFORMATION.


## General Education Certification

Fullerton College is authorized to offer two general education certification patterns. The CSU Certification is a 39 unit pattern which fulfills the lower division general education requirements for the Bachelor Degree at the California State University.

The IGETC (Intersegmental General Education Transfer Curriculum) is a 37-39 unit pattern which fulfills the lower division general education requirements for the Bachelor Degree at either the University of California or the California State University.

Certification means Fullerton College has determined these requirements have been met and a notation is made on the transcript. If the student transfers without certification, the university may require the student to complete additional lower division general education.

There are no catalog rights for certification. A course must be on the appropriate general education list at the time it is successfully completed.

Important Note: Selecting a general education plan is an issue that must be planned carefully. Certification is not always advantageous to all students. It is critical that all students planning to transfer to a university seek guidance from an academic counselor. Students not seeking guidance may complete inappropriate courses, thus complicating or delaying transfer to the university.

Students who complete either general education certification requirements need to request an evaluation to be included with the transcript when it is sent to the university. (Refer to Transcript of Record for additional information.)

## California State University and University of California Campus Specific General Education/Breadth Requirements

There are several ways that a transfer student may fulfill the CSU and UC lower-division general education requirements prior to transfer. Depending on a student's major and field of interest, the student may find it better to take courses fulfilling those of the transfer campus or college to which the student plans to transfer. Students pursuing majors that require extensive lower-division preparation may not find the Intersegmental General Education Transfer Curriculum or the CSU General Education Certification option to be advantageous.

Students are urged to consult the CSU or UC campus catalog; consult with their FC academic counselor; and use the FC Counseling Resource Center or the Cadena/Transfer Center to obtain additional information regarding CSU and UC campus specific transfer general education course patterns and lists.

## California State University Transfer Admission Requirements

Students who did not meet the CSU Admission eligibility index in high school may qualify for admission as a transfer student with a grade point average of 2.00 ("C") or better in all college transferable units attempted. They must also be in good standing at the last college or university attended, have 60 or more semester units, and meet the following:

1. 1987 or earlier high school graduates: complete the CSU general education requirements in communication in the English language (at least 9 semester units) and mathematics (usually 3 semester units), with a "C" or better in each course;
2. 1988 and later high school graduates: complete a minimum of 30 semester ( 45 quarter) units, with a " $C$ " or better in each course, to be chosen from courses in English, arts and humanities, social science, science, and mathematics of at least equivalent level to courses that meet general education or transfer curriculum requirements. You must complete all CSU general education requirements in communication in the English language (at least 9 semester units) and mathematics (usually 3-4 semester units) as part of the 30 unit requirement.

## CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS FULLERTON COLLEGE 2009-2010



1. PHYSICAL SCIENCE:

CHEM $100 \mathrm{~F}, 101 \mathrm{~F}, 103 \mathrm{~F}, 107 \mathrm{~F}, 111 \mathrm{AF}, 111 \mathrm{BF}$
ESC 100 F, 101 F, 103 F, 104 F, 105 F, 116 F, 120 F, 130 F or 130HF, 190 F
GEOG 102 F
PHSC 102 F, 103AF (beg Spr 07), 103BF (beg Spr 07)
PHYS $\underline{130 \mathrm{~F}}, \underline{205 \mathrm{~F}}, \underline{206 \mathrm{~F}}, \underline{210 \mathrm{~F}}, \underline{211 \mathrm{~F}}, \underline{221 \mathrm{~F}}, \underline{222 \mathrm{~F}}, \underline{223 \mathrm{~F}}$
2. LIFE SCIENCE:

ANAT $231 \mathrm{~F}, \underline{240 \mathrm{~F}}$
ANTH 101 F or 101 HF

ENVS 105 F, 126 F
HORT $152 \mathrm{~F}, \underline{205 \mathrm{~F}, 207 \mathrm{~F}}$
MICR 220 F, 262 F
3. LABORATORY ACTIVITY: ANTH 101LF; BIOL 102LF; ESC 100LF, 101LF, 116LF, 130LF; ENVS 105LF; GEOG 102LF
Underlined courses from Area B. 1 and B. 2 also satisfy the Area B. 3 Laboratory requirement.
4. MATHEMATICS/QUANTITATIVE REASONING: (Grade of "C" or better required).

MATH 100 F, 120 F or $120 \mathrm{HF}, 129 \mathrm{~F}, 130 \mathrm{~F}, 141 \mathrm{~F}, 142 \mathrm{~F}, 150 \mathrm{AF}, 150 \mathrm{BF}, 171 \mathrm{~F}, 172 \mathrm{~F}, 250 \mathrm{AF}, 250 \mathrm{BF}$
PSY 161 F
SOSC $120 \mathrm{~F}, 121 \mathrm{~F}$
AREA C: ARTS AND HUMANITIES (9 units min.). At least one course is required from section 1 and section 2.

1. ART 110 F, 112 F, 113 F, 114 F, 116 F, 117 F, 118 F, 119 F, 120 F, 121 F, 150AF, 150BF, 174AF, 179 F, 182 F,

184 F, 189AF, 196HF, 212 F, 213 F
CRTV 120 F, 121 F, 126AF, 126BF, 131 F
DANC 101 F, 120 F, 210 F
ENGL 208 F
MUS 101 F, 102 F, 106 F, 107AF, 110 F, 113 F, 114 F, 116 F, 117 F, 118 F, 119 F, 120 F, 135AF, 196HF
PHOT 100 F, 101 F
THEA 100 F, 104 F, 105 F, 127 F, 196HF
2. ENGL 102 F or $102 \mathrm{HF}, 105$ F, 203 F, 204 F, 205 F, 206 F, 207 F, , 211 F, 212 F, 214 F, 218 F, 221 F,

222 F, 224 F, 225 F, 234 F or $234 \mathrm{HF}, 239 \mathrm{~F}, 243 \mathrm{~F}$ or $243 \mathrm{HF}, 245 \mathrm{~F}, 246 \mathrm{~F}, 247 \mathrm{~F}, 248 \mathrm{~F}, 249 \mathrm{~F}, 250 \mathrm{~F}$, 251 F, 252 F, 253 F
ETHS $130 \mathrm{~F}^{*}$ (beg F 02)
Foreign Language 101 F or 101HF, 102 F or 102HF, 201 F, 203 F, 204 F, 205 F, 206 F, 207 F
HIST 110HF*, 111 HF*, $112 \mathrm{~F}^{*}$ (beg F 02) or 112HF*, $113 \mathrm{~F}^{*}$ (beg F 02) or 113 $\mathrm{HF}^{*}, 154 \mathrm{~F}^{*}, 170 \mathrm{HF}^{*}, 171 \mathrm{HF}^{*}$, 270 F* (beg Spr 06)
PHIL 100 F or 100HF, 101 F, 105 F or 105HF, 135 F, 160 F, 195 F, 200 F, 201 F, 202 F, 210 F, 250 F, 270 F THEA 109 F

* = Course can only be used in one area.


## CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS FULLERTON COLLEGE 2009-2010

|  | Legend: $\mathbf{C}=$ Completed; IP = In Progress; $\mathbf{R}=$ Remaining | C | IP | R |
| :---: | :---: | :---: | :---: | :---: |
| AREA D: SOCIAL SCIENCES (9 units min.). Select from at least two different disciplines. |  |  |  |  |
| Courses in Italics may be used to meet the U.S. History, Constitution and American Ideals Requirement. |  |  |  |  |
| D1 | Anthropology and Archeology: ANTH 102 F or 102HF, 103 F, 105 F, 107 F, 209 F, 211 F |  |  |  |
| D2 | Economics: ECON 101 F or 101HF, 102 F or 102HF |  |  |  |
| D3 | Ethnics Studies: ETHS 101 F, 129 F, $130 \mathrm{~F}^{*}, 131$ F, 140 F, $141 \mathrm{~F}, 142 \mathrm{~F}, 160$ F, 170 F, 171 F; PSY 131 F |  |  |  |
| D4 | Gender Studies: WMNS 100 F |  |  |  |
| D5 | Geography: GEOG 100 F or 100HF, 120 F, 160 F |  |  |  |
| D6 | History: HIST 110 F or 110HF*, 111 F or 111HF*, 112 F* $^{*}$ or $112 \mathrm{HF}^{*}, 113 \mathrm{~F}^{*}$ or $113 \mathrm{HF}^{*}$, 127 F, 151 F, 152 F, $154 \mathrm{~F}^{*}$, 160AF, 160BF, 162AF, 162BF, 165 F, 170 F or $170 \mathrm{HF}^{*}, 171$ F or 171HF*, $270 F^{*}, 275$ F |  |  |  |
| D7 | Interdisciplinary Social or Behavioral Science: CDES 120 F*; JOUR 110 F |  |  |  |
| D8 | Political Science, Government and Legal Institutions: POSC 100 F or $100 \mathrm{HF}, 110$ F, $120 \mathrm{~F}, 150 \mathrm{~F}, 200 \mathrm{~F}$, 215 F, 216 F, 220 F (beg Spr 07), 230 F, 275 F |  |  |  |
| D9 | Psychology: PSY 101 F or $101 \mathrm{HF}, 131 \mathrm{~F}, 145 \mathrm{~F}, 202 \mathrm{~F}, 222 \mathrm{~F}, 251 \mathrm{~F}$ or 251 HF |  |  |  |
| D0 | Sociology and Criminology: SOC 101 F or 101HF, 102 F, 201 F, 225 F or $225 \mathrm{HF}, 275 \mathrm{~F}$ or $275 \mathrm{HF}, 285 \mathrm{~F}$, |  |  |  |

THE UNITED STATES HISTORY, CONSTITUTION AND AMERICAN IDEALS CSU GRADUATION REQUIREMENT may be met by completing 6 units from the following two categories:
(1) U.S. Government: POSC 100 F or 100 HF (required) and
(2) U.S. History (1 course required from the following): ETHS $101 \mathrm{~F}, 130 \mathrm{~F}+131 \mathrm{~F}, 160 \mathrm{~F}$; HIST $127 \mathrm{~F}, 162 \mathrm{AF}, 170 \mathrm{~F}$ or 170HF+, 171 F or $171 \mathrm{HF}+, 270 \mathrm{~F}+$ (These units may also be used to meet 6 of the 9 -unit AREA C and AREA D requirements if applicable).
$+=$ Courses are also listed in Area C2.
AREA E: LIFELONG LEARNING AND SELF-DEVELOPMENT (3 units min.).
CDES 120 F* (beg F 06); COUN 151 F, 163 F; HED 140 F; NUTR 210 F; PSY 120 F, 139 F; PE 248 F, 266 F; SPCH 120 F; WELL 230 F

One unit maximum: All Physical Education Activity courses (except PE 113 F ) including 1 unit maximum from: DANC 100 F, 102 F, 103 F, 104 F, 105 F, 106 F, 107 F, 108 F, 111 F, 113 F, 115 F, 116 F, 119 F, 122 F, 130 F, 132 F, 150 F, 151 F, 202 F, 203 F, 214 F; REC 107 F, 108 F; WELL 242 F

## FULLERTON COLLEGE

2009-2010 California State University General Education

IMPORTANT NOTE: Courses on this list are approved for the academic year 2009-2010 which begins with Fall Semester, 2009. This list is valid through Summer 2010. New courses for 2009-2010 are listed in Bold.
Students wishing to use a course to meet a CSU General Education requirement must be sure that the course is approved for the academic year in which it is taken. Courses on this list are approved by the CSU Chancellor's Office for the 2009-2010 academic year. There are no catalog rights for CSU certification.
Previous CSU General Education Approved Course Lists are available at www.assist.org. Information is also available at the Fullerton College Counseling Resource Center and the Cadena/Transfer Center, or you may request verification from a counselor.

Fullerton College will certify courses taken at other California community colleges in the areas designated by the offering college. Courses taken at California four year colleges or accredited out-of-state two year or four year colleges will be certified if they are equivalent to courses on the CSU GE course list. Courses from foreign institutions cannot be used in the certification process.

Certification is not automatic and must be requested after the completion of the last term prior to transfer. This request should be made in the Admissions and Records Office and will occur when final transcripts are sent to the CSU. Students requesting CSU GE "pass along" certification must complete at least 12 transferable units at FC.

Revised 05/09 (Lee/Moon)

* $=$ Course can only be used in one area.


## University of California Transfer Admission Requirements

Admission eligibility requirements for transfer students enrolling at the University of California are similar to the previous year. These requirements apply to students who were not eligible to attend the University as freshmen because they did not meet the freshman Scholarship Requirement. Students in this category must:
A. Complete 60 semester units or 90 quarter units of transferable college coursework with a grade point average of at least 2.40, and
B. Complete a course pattern requirement (with at least a "C" grade in each course) to include:

1. Two transferable college courses (3 semester or 4-5 quarter units each) in English Composition; and
2. One transferable college course (minimum 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: Arts and Humanities; Social and Behavioral Sciences; or Physical and Biological Sciences.

The above transfer requirements do not affect students who were eligible for admission to the University when they graduated from high school. In other words, students who have satisfied the Subject Requirement ("a-f" courses), Scholarship Requirement (GPA), and Examination Requirement (SAT I/ACT and SAT II) - all required for freshman admission - are still eligible to transfer if they have a "C" (2.00) average in their transferable college coursework.

Students who met the Scholarship and Examination Requirements but who did not satisfy the Subject Requirement based on their high school record must take transferable college courses in the subjects they are missing, earn a grade of "C" or better in each of these required courses, and earn an overall "C" (2.00) average in all transferable college coursework to be eligible to transfer. This means that students entering the University Fall 1998 and thereafter cannot use non-transferable college courses to make-up "a-f" subject omissions. The only way to satisfy this requirement is to use transferable college courses.

Students who met the Subject and Scholarship Requirements, but who did not meet the Examination Requirement, must complete a minimum of 12 semester ( 18 quarter) units of transferable work and earn an overall "C" (2.00) average in all transferable college coursework completed. Thus, under these requirements, students need not take the examinations required of freshmen.

It is advisable that students make counseling appointments to review the UC transfer requirements and obtain an educational course plan. Students may contact the Fullerton College Counseling Resource Center or the Cadena/Transfer Center for further University of California transfer information. Many UCs are not currently accepting lower division transfer students.

## LANGUAGE OTHER THAN ENGLISH

(UC requirement only)

- Complete 2 years of the same foreign language of high school level work with a grade of "C" or better; OR
- Earn a score of 3 or higher in the College Board Advanced Placement exams in language other than English; OR
- Satisfactory score in the SAT II: Subject Test in languages other than English
Before May 1995, use the first score; if taken after May 1995, use the second score.

| Chinese with Listening | $500 / 520$ |
| :--- | ---: |
| French/French with Listening | $500 / 540$ |
| German/German with Listening | $500 / 510$ |
| Hebrew (Modern) | $500 / 470$ |
| Italian | $500 / 520$ |
| Japanese with Listening | $500 / 510$ |
| Korean/Korean with Listening | 500 |
| Latin | $500 / 530$ |
| Spanish/Spanish with Listening | $500 / 520 ;$ OR |

- Satisfactory score of 5 or higher in the International

Baccalaureate Higher Level Examinations in languages
other than English; OR

- Complete 1 course from the courses below:

| CHIN | 102 F | 5 units |
| :--- | :--- | :--- |
| FREN | 102 F | 5 units |
| GERM | 102 F | 5 units |
| ITAL | 102 F | 5 units |
| JAPN | 102 F | 5 units |
| PORT | 102 F | 5 units |
| RUSS | 102 F | 5 units |
| SPAN | 102 F | 5 units or |
| SPAN | 102 HF | 5 units |
| SPAN | 201 F | 5 units |

## INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM 2009-2010 "IGETC" WORKSHEET

Completion of IGETC will permit a student to complete their lower division G.E. requirements to either the California State University (CSU) or University of California (UC) system. Courses on this list are approved for the academic year 2009-2010 which begins Fall Semester, 2009. This list is valid through Summer 2010. New courses for 2009-2010 are listed in BOLD. It should be noted that completion of the IGETC is not a requirement for transfer to 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. A grade of "C" or higher is required in ALL coursework used for IGETC certification.
Legend: C = Completed; IP = In Progress; R = Remaining

AREA 1 - ENGLISH COMMUNICATION: CSU 3 courses = 9 semester units / 12-15 quarter units UC $\mathbf{2}$ courses = $\mathbf{6}$ semester units / 8-10 quarter units

1A English Composition: ENGL 100 F or 100HF (1 course required)
1B Critical Thinking - English Composition: ENGL 103 F or 103HF, 104 F, 201 F; PHIL 172 F (1 course required)
1C Oral Communication: SPCH 100 F, 124 F, 135 F
(1 course required for CSU; students transferring to UC do not have to meet the Oral Communication requirement)
AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING: 1 course = $\mathbf{3}$ semester units / 4-5 quarter units
MATH 100 F (beg F 04), 120 F• or 120HF•, 130 F+, 141 F, 150AF+, 150BF, 171 F, 172 F (beg F 07), 250AF, 250BF; PSY 161 F (beg F 07); SOSC 120 F•, 121 F• (see a counselor)

- If MATH 120 F or 120 HF , or SOSC 120 F , or SOSC 121 F and PSY 161 F combined: maximum UC credit allowed $=1$ course. + If MATH 130 F combined with MATH 150AF: maximum UC credit allowed $=1$ course.

AREA 3 - ARTS AND HUMANITIES: At least $\mathbf{3}$ courses $\mathbf{= 9}$ semester units / 12-15 quarter units One course is required from each area.

3A Arts:
ART 110 F, 112 F, 113 F, 114 F, 116 F, 117 F, 196HF+, 212 F, 213 F
CRTV 126AF, 126BF, 131 F
DANC 120 F, 210 F
ENGL 205 F, 206 F
MUS 113 F, 116 F, 117 F, 118 F, 119 F, 120 F, 196HF+
THEA 100 F, 104 F, 105 F, 196HF+

+ Maximum UC credit one course from ART 196HF, MUS 196HF, THEA 196 HF .
3B Humanities:
ENGL 102 F or $102 \mathrm{HF}, 203$ F, 204 F, 207 F, 211 F, 212 F, 214 F, 218 F, 221 F, 222 F, 224 F, 225 F, 234 F or $234 \mathrm{HF}, 239 \mathrm{~F}, 243 \mathrm{~F}$ or $243 \mathrm{HF}, 245 \mathrm{~F}, 246 \mathrm{~F}, 248 \mathrm{~F}, 249 \mathrm{~F}, 250 \mathrm{~F}, 251 \mathrm{~F}, 252 \mathrm{~F}, 253 \mathrm{~F}$
ETHS 130 F*, 160 F
FREN 203 F, 204 F
GERM 203 F, 204 F
HIST 110 F or 110HF, 111 F or 111HF, $112 \mathrm{~F}^{*}$ or $112 \mathrm{HF}^{*}, 113 \mathrm{~F}^{*}$ or $113 \mathrm{HF}^{*}, 127 \mathrm{~F} \sim 151 \mathrm{~F}, 152 \mathrm{~F}, 154 \mathrm{~F}$, 160AF, 160BF, 162AF, 162BF, 165 F, 170 F~ or 170HF~, $171 \mathrm{~F} \sim$ or $171 \mathrm{HF} \sim, 270 \mathrm{~F}^{*}$ (beg Spr 06), 275 F
ITAL 203 F, 204 F
JAPN 203 F, 204 F
PHIL 100 F or $100 \mathrm{HF}, 101 \mathrm{~F}, 105 \mathrm{~F}$ or $105 \mathrm{HF}, 160 \mathrm{~F}, 195 \mathrm{~F}$
SPAN 201 F, 203 F, 204 F, 205 F, 206 F
$\sim$ Credit will be granted for either HIST 127 F OR HIST 170 F or HIST 170 HF and HIST 171 F or HIST 171HF.
* Course can only be used in one area.

AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES: At least 3 courses $=9$ semester units / 12-15 quarter units. Select from at least two (2) disciplines:
4A ANTH: 102 F or $102 \mathrm{HF}, 103$ F, 105 F, 107 F, 209 F
4B ECON: 101 F or $101 \mathrm{HF}, 102 \mathrm{~F}$ or 102 HF
4C ETHS: 101 F, 129 F, 130 F* (beg Spr 06), 131 F, 140 F, 141 F, 142 F, 170 F, 171 F
4D WMNS: 100 F
4E GEOG: 100 F or $100 \mathrm{HF}, 120 \mathrm{~F}, 160 \mathrm{~F}$
4F HIST: 112 F* $^{*}$ (beg Spr 06) or 112HF* (beg Spr 06), 113 F* (beg Spr 06) or 113HF* (beg Spr 06), 270 F* $^{*}$
4H POSC: 100 F or $100 \mathrm{HF}, 110 \mathrm{~F}, 120 \mathrm{~F}, 200 \mathrm{~F}, 215 \mathrm{~F}, 216 \mathrm{~F}, 230 \mathrm{~F}$
4I PSY: 101 F or $101 \mathrm{HF}, 131 \mathrm{~F}, 139 \mathrm{~F}, 145 \mathrm{~F}, 202 \mathrm{~F}, 222 \mathrm{~F}, 251 \mathrm{~F}$ or 251 HF
4J SOC: 101 F or 101HF, 102 F, 275 F or 275HF, 285 F, 292 F

* Course can only be used in one area.


# INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM 2009-2010 "IGETC" WORKSHEET 

| Legend: $\mathbf{C}=$ Completed; IP = In Progress; $\mathbf{R}=$ Remaining | C | IP | R |
| :---: | :---: | :---: | :---: |
| AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES: At least 2 courses = 7-9 semester units / 12-15 quarter units. At least one course is required from both areas. One of the courses must include a laboratory. Underlined courses meet the laboratory requirement. <br> 5A Physical Science: <br> CHEM: $100 \mathrm{~F}+, 101 \mathrm{~F}+, 103 \mathrm{~F}+, 107 \mathrm{~F}+, 111 \mathrm{AF}, 111 \mathrm{BF}$ <br> ESC: $100 \mathrm{~F}+, 100 \mathrm{LF}+101 \mathrm{~F}, 101 \mathrm{LF}, 103 \mathrm{~F}, 105 \mathrm{~F}, 116 \mathrm{~F}, 116 \mathrm{LF}, 120 \mathrm{~F}, 130 \mathrm{~F}$ or $130 \mathrm{HF}, 130 \mathrm{LF}, 190 \mathrm{~F}$ <br> GEOG: 102 F, 102LF <br> PHSC: $102 \mathrm{~F}+\sim$ <br> PHYS: $\underline{130 \mathrm{~F}+}, \underline{205 \mathrm{~F}+}, \underline{206 \mathrm{~F}+}, \underline{210 \mathrm{~F}}, \underline{211 \mathrm{~F}}, \underline{221 \mathrm{~F}+}, \underline{222 \mathrm{~F}+}, \underline{223 \mathrm{~F}+}$ <br> + CHEM 100 F or 103 F : no UC credit if taken after CHEM 111AF. <br> + If CHEM 101 F and 107 F combined: maximum UC credit allowed $=1$ course. <br> (No UC credit for CHEM 101 F or 107 F if taken after CHEM 111 AF ). <br> + If ESC 100 F, 100 LF and PHSC 102 F combined: maximum UC credit allowed $=1$ course. <br> ~ PHSC 102 F: no UC credit for PHSC 102 F if taken after a college course in Astronomy, Chemistry, Geology, or Physics. <br>  <br>  |  |  |  |
| 5B Biological Sciences: <br> ANAT $231 \mathrm{~F}, \underline{240 \mathrm{~F}}$ <br> ANTH 101 F or 101HF, 101LF <br>  <br> ENVS 105 F, 105LF, 126 F <br> MICR 262 F <br> $=$ BIOL 100 F and 101 F combined: maximum credit $=1$ course. <br> + BIOL 101 F or 101 HF : no UC credit if taken after a 200 -level Biological Science course (per catalog). <br> \# BIOL 102 F or 102LF: no UC credit if taken after BIOL 101 F or 101 HF . <br> + BIOL 109 F: no UC credit if taken after a 200-level Biology course. |  |  |  |
| 6A - LANGUAGE OTHER THAN ENGLISH: (UC requirement only) <br> Complete 2 years of the same foreign language of high school level work with a grade of " C " or better; OR earn a score of "3" or higher on the Foreign Language Advanced Placement Test; OR earn a score of " 3 " or higher on the College Board Achievement Test in Foreign Language; OR earn a score of " 5 " or higher in the International Baccalaureate Higher Level Examinations in languages other than English; <br> OR earn a satisfactory score on the SAT II: Subject Test in Languages other than English; OR complete 1 course from the courses below: <br> CHIN 102 F, FREN 102 F, GERM 102 F, ITAL 102 F, JAPN 102 F, PORT 102 F, SPAN 102 F or 102HF, 201 F; OR completion of a Foreign Language in Area 3B. |  |  |  |

CSU GRADUATION REQUIREMENT IN U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS:
(Not part of IGETC; may be completed prior to transfer)
6 units; one course from Group 1 and one course from Group 2:

1) POSC 100 F or 100 HF and
2) ETHS 101 F, 130 F, 131 F, 160 F; HIST 127 F, 162AF, 170 F or $170 \mathrm{HF}, 171 \mathrm{~F}$ or 171 HF , 270 F

## IMPORTANT NOTE:

Students enrolled in high unit majors (i.e. architecture, computer science, engineering, sciences) are frequently recommended not to use IGETC to meet general education certification but rather to meet transfer admission requirements and complete required lower division major and support courses. See your counselor to develop an academic educational plan.

It is recommended that all IGETC requirements be completed prior to transfer. If you are unable to complete one or two IGETC courses in the final term before transfer, you may be eligible to complete IGETC after transfer, providing that those courses are not among those required for admission. See your counselor for more information.

Certification is not automatic, and must be requested after the completion of the last term prior to transfer. This request should be made in the Admissions and Records Office.

Revised 05/09 (Lee/Moon)

## Educational Objective - Transfer

Many students attend a California Community College with the intention of transferring to a four-year college or university. A considerable number of courses offered at Fullerton College are transferable to four-year colleges and universities. In addition, Fullerton College has established a plan of coursework in certain majors that transfer as core preparation at various universities. These courses are referred to as major prep courses which articulate to the four-year universities. It is advisable for students planning to transfer to seek assistance from the Counseling Center and/or the Transfer Center since transfer institution requirements vary significantly. Transfer Students are encouraged to meet with a counselor each semester to review any possible changes in transfer admission, general education, major and/or major support course requirements.

Fullerton College transfers many students to the California State University (CSU) and University of California (UC) systems as well as private and out-of-state universities. To access Fullerton College articulation agreements, please reference www.assist.org.

The following is a list of the most frequently requested transfer majors by Fullerton College students. More information is available regarding each of these transfer majors in the Counseling Center. Additional transfer majors are available and may be found at www.assist.org.

Please see a counselor for additional assistance.
Transfer Guide to Major materials are available in the Counseling Center for the following programs leading to Transfer:

Administration of Justice (Criminal Justice)
Anthropology
Architecture
Art (Ceramics)
Art (Crafts or 3-D Media)
Art (Drawing and Painting)
Art (General)
Art (Graphic Design)
Art (History)
Art (Illustration)
Art (Photography)
Art (Printmaking)
Art (Sculpture)
Art (Studio Art)
Art (Teaching)
Biochemistry
Biological Sciences
Business Administration
Chemistry
Child Development
Communications (Advertising)
Communications (Film, Radio-TV, Telecommunication)
Communications (General)
Communications (Journalism/Broadcast)

Communications (Public Relations)
Computer Science
Dance
Dentistry
Economics
Engineering
Engineering Technology
English
Ethnic Studies
Fashion (Merchandising/Textiles)
French
Geography
Geological Science
German
Health Science
History
Hotel and Restaurant Management
Interior Design
International Relations
Kinesiology
Liberal Studies (Teaching)
Mathematics
Music
Music Technology
Nutrition/Food (Dietetics)
Philosophy
Physics
Plant Science
Political Science
Pre-Chiropractic
Pre-Dental Hygiene
Pre-Medicine
Pre-Nursing
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant
Psychology
Recreation
Religious Studies
Social Work/Human Services/Social Ecology
Sociology
Spanish
Theatre Arts (General)
Theatre Arts (Musical)
Theatre Arts (Performance/Playwriting)
Theatre Arts (Teaching)
Theatre Arts (Technical Production)
Veterinary Science
Women's Studies


## Degrees and Certificates

Listed on the following pages are programs of study offered by Fullerton College and requirements for specific certificates and degrees. Students are encouraged to meet with an academic counselor for individual education planning.
(0) Certificates with less than a total of 12 units will not appear on college transcripts.
(■) Certificates with more than a total of 12 units will be noted on transcript as Certificate of Achievement.
( $\mathbf{A}$ ) Pending State approval
Any request for a course substitution or waiver may be discussed with a counselor and must be submitted for approval to the Admissions and Records Office.
NOTE: For students wanting to transfer to a university, see the "Transferability of Courses" section in this catalog and schedule an appointment with a counselor. Students may also reference www.assist.org. Degrees and certificate programs are listed below by Instructional Divisions.

| Listing of Instructional Division |  | A.A. Degree | $\begin{array}{\|c\|} \hline \text { A.S. } \\ \text { Degree } \end{array}$ | $\begin{aligned} & \hline \text { Voc } \\ & \text { Cert } \\ & \text { Prog } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Academic Services |  |  |  |  |
| Business and Computer Information Systems |  |  |  |  |
| (ACCT) | Accounting |  | $\square$ | $\square$ |
| (BUS) | Business Administration | $\square$ |  |  |
|  | Business Management |  | $\square$ | $\square$ |
|  | Business \& Technology Skills |  |  | $\square$ |
|  | E-Business Development |  |  | $\square$ |
|  | Entrepreneurship |  | ■ | $\square$ |
|  | International Business |  |  | 0 |
|  | International Business Mgmt |  | ■ | $\square$ |
|  | Managerial Communications |  |  | 0 |
|  | Project Management |  |  | $\square$ |
| (MKT) | Marketing Management |  | ■ | 0 |
| (CIS) | Computer Information Services |  | - | $\square$ |
|  | Computer Forensics |  |  | - |
|  | Computer Software Appl. Specialist |  |  | $\square$ |
|  | Database Applications |  |  | 0 |
|  | E-Commerce Programming |  |  | $\square$ |
|  | Enterprise Database |  |  | 0 |
|  | Internet |  |  | $\square$ |
|  | Networking |  |  | $\square$ |
|  | PC Applications |  |  | $\square$ |
|  | Programming |  |  | $\square$ |
|  | Spreadsheet Applications |  |  | 0 |
|  | Web Design |  |  | $\square$ |
|  | Web Scripting |  |  | 0 |
| (CISG) | Computer Information Services - Gaming |  |  |  |
|  | Computer Game Design |  |  | $\triangle$ |
|  | Computer Game Programming |  |  | $\triangle$ |
| (0T) | Office Technology |  |  |  |
|  | Administrative Offfice Assistant |  | - | $\square$ |
|  | Legal Office Administration |  | $\square$ | $\square$ |
|  | Word Processing |  | $\square$ | $\square$ |
| (PLEG) | Paralegal Studies |  | $\square$ | $\square$ |
| (RE) | Real Estate Management |  | - | $\square$ |
|  | Real Estate Sales |  |  | $\square$ |


|  |  |  | Voc <br> Listing of Instructional Division |
| :--- | :---: | :---: | :---: |
| A.A. | A.S. <br> Cegree |  |  |
| Degree | Prog |  |  |

(COUN) COUNSELING \& STUDENT DEVELOPMENT
Fine Arts

| (ART) | Art | ■ |  |
| :---: | :---: | :---: | :---: |
|  | Advertising \& Graphic Design | $\square$ | $\square$ |
|  | Illustration |  | $\square$ |
| (ACG) | Art Computer Graphics |  | $\square$ |
|  | Computer Animation/Multimedia |  | $\square$ |
|  | Desktop Publishing |  | $\square$ |
|  | 3D Animation Certificate - Level II |  | $\square$ |
| (MUS) | Music | ■ |  |
|  | Music: Commercial | - |  |
|  | Certificate in Piano Teaching |  | $\square$ |
|  | Recording/Production |  | $\square$ |
| (THEA) | Theatre Arts (Drama) | $\square$ |  |
|  | Assistant Costume Designer |  | - |
|  | Costume Cutter/Draper |  | - |
|  | Costume Stitcher |  | - |
|  | Costume Wardrobe |  | $\square$ |
|  | Musical Theatre |  | $\square$ |
|  | Advanced Musical Theatre |  | $\square$ |
|  | Lighting Technician |  | $\square$ |
|  | Scenic Artist |  | $\square$ |
|  | Sound Technician |  | $\square$ |
|  | Stage Management |  | $\square$ |
|  | Technical Thearre |  | $\square$ |
|  | Theatrical Costumer |  | $\square$ |
|  | Advanced Theatrical Costumer |  | $\square$ |

## Humanities

| (ENGL) | English | ■ |  |  |
| :--- | :--- | :---: | :---: | :---: |
|  | Foreign Language | $■$ |  |  |
| (READ) | Reading |  |  |  |
| (SPCH) | Speech | $■$ |  |  |

## Interdisciplinary Studies

| Arts and Human Expression | $■$ |  |  |
| :--- | :---: | :---: | :---: |
| Science and Math | $■$ |  |  |
| Social Behavior and Self-Dev. | $\square$ |  |  |
| Social Sciences | $\square$ |  |  |

## Mathematics and Computer Science

| (CSCI) | Computer Science |  | $■$ |  |
| :--- | :--- | :---: | :---: | :---: |
| (MATH) | Mathematics | $■$ |  |  |


| Listing of Instructional Division |  | A.A. Degree | A.S. Degree | $\begin{aligned} & \text { Voc } \\ & \text { Cert } \\ & \text { Prog } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Natural Sciences |  |  |  |  |
| (ESC) | Astronomy | - |  |  |
|  | Biological Technician |  | $\square$ |  |
| (BIOL) | Biology | $\square$ |  |  |
| (CHEM) | Chemistry | $\square$ |  |  |
| (ENVS) | Environmental Science | - |  |  |
| (ET) | Environmental Technology |  | $\square$ | $\square$ |
|  | Geology | $\square$ |  |  |
| (FOOD) | Foods and Nutrition | $\square$ |  |  |
| (HORT) | Horticulture |  |  |  |
| Greenhouse and Nursery Production |  |  |  | $\square$ |
| Landscape Management |  |  | $\square$ |  |
| Landscape Design/Management |  |  |  | $\square$ |
| Landscape Horticulture |  |  |  | $\square$ |
| Landscape Irrigation |  |  |  | $\square$ |
| Nursery Management |  | $\square$ |  |  |
| Ornamental Horticulture |  |  | $\square$ | $\square$ |
| Pest Management |  |  |  | $\square$ |
|  | Industrial Lab Technician | ■ |  |  |
| Medical Technology |  | $\square$ |  |  |
| (MICR) | Microbiology | - |  |  |
| (NUTR) | Foods and Nutrition | $\square$ |  |  |
| (PHYS) | Physics | $\square$ |  |  |
|  | Pre-Nursing | $\square$ |  |  |
| (PE) | Physical Education | $\square$ |  |  |
| Aquatic Specialist |  |  |  | $\square$ |
| Athletic Coach |  |  |  | $\square$ |
| Group Fitness Instructor |  |  |  | $\square$ |
| Outdoor Recreation and Safety |  |  |  | $\square$ |
| Personal Trainer |  |  |  | $\square$ |
| Physical Education - Fitness |  |  | $\square$ |  |
| Therapeutic and Sports Massage Level I/II Therapist |  |  |  | ■ |
| (DANC) | Dance | - |  |  |
| Dance Technique |  |  |  | $\square$ |
| Social Science |  |  |  |  |
| (ANTH) | Anthropology | - |  |  |
| (CDES) | Child Development \& Educational Studies | $\square$ |  |  |
| After School Care |  |  |  | $\square$ |
| Associate Teacher |  |  |  | $\square$ |
| ECE Administration |  |  |  | $\square$ |
| ECE Teacher |  |  |  | $\square$ |
| Family Child Care |  |  |  | $\square$ |
| Infant/Toddler Caregiver |  |  |  | $\square$ |
| Liberal Studies: Teacher Prep/Elem Ed |  | $\triangle$ |  |  |
| The Para-Professional in Education |  |  |  | $\square$ |
| Weekend Associate Teacher |  |  |  | $\square$ |
| Early Childhood Education |  | $\square$ |  |  |
| Elementary Education |  | $\square$ |  |  |
| (ECON) Economics |  | $\square$ |  |  |
| (ETHS) Ethnic Studies |  | $\square$ |  |  |
| Chicano/Chicana Studies |  | $\square$ |  |  |
| (GEOG) | Geography | $\square$ |  |  |


|  |  |  | Voc <br> Listing of Instructional Division |
| :--- | :---: | :---: | :---: |
| A.A. | A.S. | Cert <br> Degree | Degree |
| Prog |  |  |  |

Social Science (cont'd)


Technology and Engineering

| (AJ) | Administration of Justice | ■ | ■ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Crime Analysis |  |  | $\square$ |
|  | Crime Scene Investigation |  |  | $\square$ |
|  | P.O.S.T. Law Enforcement |  |  | $\square$ |
|  | Skills Development |  |  | $\square$ |
| (ARCH) | Architecture |  | ■ |  |
|  | Architectural CAD Technology |  |  | ■ |
| (AUTO) | Automotive |  |  |  |
|  | Automatic Transmission Specialist |  |  | $\square$ |
|  | Automotive Chassis Specialist |  |  | - |
|  | Automotive Maintenance Specialist |  |  | $\square$ |
|  | Automotive Management |  |  | $\square$ |
|  | Automotive Service Advisor |  |  | $\square$ |
|  | Automotive Technology |  | ■ | $\square$ |
|  | Emission Control Specialist |  |  | $\square$ |
|  | Engine Performance Specialist |  |  | $\square$ |
|  | Fabrication Specialist |  |  | $\square$ |
|  | Light Repair Specialist |  |  | $\square$ |
|  | Manual Drive Train Specialist |  |  | $\square$ |
|  | Carpentry | ■ |  |  |
|  | Civil Engineering Technology |  | ■ |  |
|  | Communications - General | ■ |  |  |
| (COSM) | Cosmetology |  | $\square$ | $\square$ |
|  | Cosmetology Instructor |  | $\square$ |  |
|  | Esthetician |  |  | $\square$ |
| (CRTV) | Communications - General | $\square$ |  |  |
|  | Radio Broadcasting | $\square$ |  | - |
|  | Radio Production | $\square$ |  |  |
|  | Radio \& Television/Video Production |  |  | $\square$ |
|  | Sports Broadcasting |  |  | - |
|  | Television/Film Production | ■ |  |  |
| (CSTR) | Construction |  |  |  |
|  | Construction Estimating |  |  | $\square$ |
|  | Construction Inspection |  | ■ | $\square$ |
|  | Construction Management |  | $\square$ |  |
|  | Construction Technology |  | $\square$ | $\square$ |
| (DRAF) | Industrial Drafting |  | ■ |  |
|  | AutoCAD for Industrial Drafting |  |  | 0 |
|  | Industrial Drafting Level I |  |  | $\square$ |
|  | Industrial Drafting Level II |  |  | $\square$ |
| (ENGR) | Engineering |  | ■ |  |


| Listing of Instructional Division | A.A. Degree | A.S Degree | Voc <br> Cert <br> Prog |
| :---: | :---: | :---: | :---: |
| Technology and Engineering (cont'd) |  |  |  |
| (FASH) Fashion Design | $\square$ |  | $\square$ |
| Advanced Fashion Design |  |  | $\square$ |
| Dressmaking-Alterations |  |  | $\square$ |
| Fashion Illustration |  |  | $\square$ |
| Fashion Journalism | $\square$ |  |  |
| Fashion Merchandising | $\square$ |  | $\square$ |
| Image Consultant |  |  | $\square$ |
| Patternmaker |  |  | $\square$ |
| Product Development Apparel |  |  | $\square$ |
| Textiles and Clothing | $\square$ |  |  |
| Industrial Arts | $\square$ |  |  |
| Industrial Lab Technician (Chemistry) | $\square$ |  |  |
| Industrial Technology | $\square$ |  |  |
| (IDES) Interior Design Assistant |  | $\square$ |  |
| Interior Merchandising Level I |  |  | $\square$ |
| Residential Design |  |  | $\square$ |
| (JOUR) Advertising |  |  | $\square$ |
| Journalism |  |  | $\square$ |
| Public Relations |  |  | $\square$ |
| (MACH) Machine Technology |  |  | $\square$ |
| CNC Operator |  |  | $\square$ |
| Computer Numerical Control (CNC) |  |  | $\square$ |
| Machine Technology Level I |  |  | $\square$ |
| Machine Technology Level II |  |  | $\square$ |
| Mastercam |  |  | 0 |
| Surfcam |  |  | 0 |
| Manufacturing Technology |  | $\square$ |  |


| Listing of Instructional Division | A.A. Degree | $\begin{gathered} \text { A.S. } \\ \text { Degree } \\ \hline \end{gathered}$ | Voc <br> Cert <br> Prog |
| :---: | :---: | :---: | :---: |
| Technology and Engineering (cont'd) |  |  |  |
| (PHOT) Photography | A |  |  |
| Professional Photography |  |  | A |
| (PRNT) Printing Technology |  | $\square$ | $\square$ |
| Advanced Offset Presswork |  |  | $\square$ |
| Customer Service Training |  |  | $\square$ |
| Digital Printing |  |  | $\square$ |
| Electronic Imaging |  |  | $\square$ |
| (WELD) Welding Technology |  |  | $\square$ |
| (WOOD) Wood Technology |  |  | $\square$ |
| Wood Technology: Cabinetmaking Specialist |  |  | $\square$ |
| Cabinetmaking/Millwork Technology Specialist |  |  | $\square$ |
| Wood Technology: Furniture Making Specialist |  |  | $\square$ |
| Wood Technology: Woodcarving Specialist |  |  | 0 |




## ACCOUNTING

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in the field of bookkeeping and/or accounting. This degree requires the completion of 33-34 units of which 30-31 must be chosen from the required courses listed below. An additional 3 units must be chosen from the restricted electives listed below. See college catalog for options for the Associate of Science Degree general education requirements.

| Required Courses (30-31 units) | Units |  |
| :--- | :--- | ---: |
| ACCT 100BF | Financial Accounting Principles or | 3 |
| ACCT 101AF | Financial Accounting | 4 |
| ACCT 101BF | Managerial Accounting | 4 |
| ACCT 104 F | Computerized Accounting | 2 |
| ACCT 112 F | Income Tax Procedure | 3 |
| ACCT 201AF | Intermediate Accounting | 4 |
| ACCT 201BF | Intermediate Accounting | 4 |
| ACCT 202 F | Introduction to Cost Accounting | 4 |
| BUS 111 F | Business Communications or | 3 |
| BUS 211 F | Writing for Business | 3 |
| BUS 240 F | Legal Environment of Business or | 3 |
| BUS 241AF | Business Law | 3 |
|  |  |  |
| Restricted Electives (3 units) | 3 |  |
| ACCT 001 F | Accounting for Small Business | 2 |
| ACCT 011 F | Payroll Accounting | .5 |
| ACCT 012 F | Updating State Income Tax Regulations | .5 |
| ACCT 013 F | Estate and Gift Tax Regulations | .5 |
| ACCT 014 F | Updating Federal Tax Laws | 3 |
| ACCT 100AF | Financial Accounting Principles | 3 |
| ACCT 105 F | Accounting for Supervisors and Managers | 3 |
| ACCT 107 F | QuickBooks | 2 |
| ACCT 109 F | Computerized Tax Preparation | 2 |
| ACCT 112 F | Income Tax Procedure | 3 |
| ACCT 116 F | Tax Preparation for Practitioners | 4 |
| ACCT 117 F | Tax Preparation for Practitioners: Intermed. | 3 |
| ACCT 118 F | Tax Preparation for Practitioners: Advanced | 3 |
| ACCT 120 F | Tax/Financial Planning | 3 |
| ACCT 203 F | Auditing | 3 |
| ACCT 204 F | Analysis of Financial Statements | 3 |
| BUS 151 F | Business Mathematics | 3 |
| CIS 105 F | Spreadsheet I | 23 |
| Total Units: |  | 34 |
|  |  |  |

## Accounting Certificate

The Accounting Certificate requires the completion of 29-30 units of which 24-25 is in required courses. An additional 5 units must be chosen from the restricted electives listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.
Required Courses (24-25 units) ..... Units
ACCT 100BF Financial Accounting Principles or ..... 3
ACCT 101AF Financial Accounting ..... 4
ACCT 101BF Managerial Accounting ..... 4
ACCT 104 F Computerized Accounting ..... 2
ACCT 201AF Intermediate Accounting ..... 4
ACCT 201BF Intermediate Accounting ..... 4
ACCT 202 F Introduction to Cost Accounting ..... 4
BUS 111 F Business Communications or ..... 3
BUS 211 F Writing for Business ..... 3
Restricted Electives (5 units) ..... Units
ACCT 001 F Accounting for Small Business ..... 3
ACCT 011 F Payroll Accounting ..... 2
ACCT 012 F Updating State Income Tax Regulations .....  5
ACCT 013 F Estate and Gift Tax Regulations .....  5
ACCT 014 F Updating Federal Tax Laws .....  5
ACCT 090 F Current Topics in Taxation ..... 5-3
ACCT 100AF Financial Accounting Principles ..... 3
ACCT 105 F Accounting for Supervisors and Managers ..... 3
ACCT 107 F QuickBooks ..... 2
ACCT 109 F Computerized Tax Preparation ..... 2
ACCT 112 F Income Tax Procedure ..... 3
ACCT 116 F Tax Preparation for Practitioners ..... 4
ACCT 117 F Tax Preparation for Practitioners: Intermed. ..... 3
ACCT 118 F Tax Preparation for Practitioners: Advanced ..... 3
ACCT 120 F Tax/Financial Planning ..... 3
ACCT 203 F Auditing ..... 3
ACCT 204 F Analysis of Financial Statements ..... 3
BUS 240 F Legal Environment of Business or ..... 3
BUS 241AF Business Law ..... 3
CIS 105 F Spreadsheet I ..... 2
Total Units:29-30

## ADMINISTRATION OF JUSTICE

## Associate in Arts Degree

The Administration of Justice Associate in Arts Degree program requires a total of 18-19 units of which 12-13 units are in required courses. An additional 6 units must be chosen from the restricted electives listed below.

Required Courses (12-13 units) Units
AJ 100 F Introduction to Law Enforcement 3

AJ 110AF Criminal Law
AJ 223 F Criminal Investigation
MATH 120 F Introductory Probability and Statistics or PSY 161 F Elementary Statistics in Behavioral Sci.

Restricted Electives (6 units)
AJ 128 F
Police-Community Relations
AJ 222 F Rules of Evidence
AJ 278 F Multicultural Issues within Admin. of Justice
PSY 101 F General Psychology
SOC 101 F Introduction to Sociology
Total Units:

## Associate in Science Degree

Curriculum leads to the Administration of Justice Associate in Science Degree and employment in the field of law enforcement. This degree requires a total of 24 units of which 9 units are in required courses. An additional 15 units must be chosen from the restricted electives listed below.

| Required Courses (9 units) |  | Units |
| :---: | :---: | :---: |
| AJ 100 F | Introduction to Law Enforcement | 3 |
| AJ 110AF | Criminal Law | 3 |
| AJ 151 F | Police Report Writing | 3 |
| Restricted Electives (15 units) |  | Units |
| AJ 097 F | Law Enforcement Supervisory Update | 1.5 |
| AJ 102 F | Introduction to Probation and Parole | 3 |
| AJ 110BF* | Advanced Criminal Law | 3 |
| AJ 111 F | Traffic Enforcement | 3 |
| AJ 128 F | Police-Community Relations | 3 |
| AJ 135 F | Weaponless Defense | 1 |
| AJ 137 F | Firearms | 1 |
| AJ 140 F | Juvenile Procedures | 3 |
| AJ 220 F | Criminal Procedure | 3 |
| AJ 222 F | Rules of Evidence | 3 |
| AJ 223 F | Criminal Investigation | 3 |
| AJ 226 F | Narcotics and Vice Control | 3 |
| AJ 230 F | Crime Scene Techniques | 3 |
| AJ 252 F | Police Patrol | 3 |
| AJ 276 F | Investigation of Homicidal Behavior | 3 |
| AJ 278 F | Multicultural Issues within Admin. of Justice | 3 |
| AJ 279 F | Contemporary Issues in Law Enforcement | 3 |
| AJ 901 F | Organized Crime and Criminal Justice Sys. | 3 |
| Total Units |  | 24 |

## Administration of Justice Certificate

The Administration of Justice Certificate program requires the completion of 52 units from the courses listed below, with a minimum grade point average of 3.00 or better. At least one half of the units toward the certificate must be completed at Fullerton College.

## Completion of: <br> AJ 059AF* Basic Police Academy - Ext. Format I <br> AJ 059BF* Basic Police Academy - Ext. Format II

Units
26

Total Units:26

52
*Prerequisite required

## Crime Analysis Certificate

The Crime Analysis Certificate program requires a total of 17 units of which 11 units are in required courses. An additional 6 units must be chosen from the restricted units listed below.
Required Courses (11 units) ..... Units
AJ 223 F Criminal Investigation ..... 3
GEOG 241 F*$^{*}$ Basic Crime Mapping ..... 2
GEOG 242 F* Advanced Crime Mapping ..... 3
Restricted Electives ( 6 units)
AJ 092 F Crime Scene Investigation ..... 1
AJ 100 F Introduction to Law Enforcement ..... 3
AJ 110AF Criminal Law ..... 3
AJ 151 F Police Report Writing ..... 3
AJ 252 F Police Patrol ..... 3
Total Units: ..... 14
*Prerequisite required

## Crime Scene Investigation Certificate

The Crime Scene Investigation Certificate program prepares students for entry-level employment as a crime scene investigator or field evidence technician in the law enforcement field. The program requires the completion of 17 units with a minimum grade point average of 3.00 or better for courses offered in the certificate program. A minimum of 12 units toward the certificate must be completed at Fullerton College.
Required Courses (17 units)AJ 092 F Crime Scene Investigation1
AJ 093 F DNA Genetic Fingerprinting ..... 0.5
AJ 096 F CAD/Crime Scene Application ..... 0.5
AJ 151 F Police Report Writing ..... 3
AJ 222 F Rules of Evidence ..... 3
AJ 223 F Criminal Investigation ..... 3
AJ 230 F Crime Scene Techniques ..... 3
PHOT 101 F Introduction to Photography ..... 3
Total Units: ..... 17

## P.O.S.T. Law Enforcement Skills Development Certificate

The P.O.S.T. Law Enforcement Skills Development Certificate program is intended to meet the basic requirements of California Penal Code 13510 in raising the competence level of current and aspiring law enforcement personnel. The certificate requires the completion of 17 units, of which 9.5 units are in required courses. An additional 7.5 units must be taken from the restricted electives listed below. All restricted electives are certified by the California Commission on Peace Officer Standards and Training (P.O.S.T.). A minimum grade of " C " is needed for each required course taken, with the exception of AJ 079 F (CR/NC). At least one half of the units toward the certificate must be completed at Fullerton College.

## Required Courses (9.5)

Units
AJ 079 F Law Enforcement Career Preparation 0.5
AJ 100 F Introduction to Law Enforcement 3
AJ 110AF Criminal Law 3
AJ 151 F Police Report Writing 3
Restricted Electives (7.5) Units
AJ 067 F Current Issues in Admin. of Justice 0.5-3
AJ 068 F* Parolee Contacts 1.5
AJ 069 F H\&S 11550 Drug Influence 0.5
AJ 070 F Emergency Management 1.5
AJ 071 F Preventing Racial Profiling 0.5
AJ 072 F Investigating Domestic Terrorism 1
AJ 073 F Interview and Interrogation Update 1.5
AJ 074 F Conflict Resolution for Police Officers 0.5
AJ 075 F Cultural Diversity 1
AJ 076 F Comm. Oriented Policing \& Prob. Solving 0.5
AJ 077 F Organized Crime 1
AJ 078 F Multi-Agency Task Forces 0.5
AJ 080 F Lifetime Fitness/Law Enforcement 2
AJ 081 F Use of Force 0.5
AJ 082 F Tactical Awareness 0.5
AJ 083 F Narcotics Training for Field Officers 0.5
AJ 084 F Domestic Violence 0.5
AJ 085 F Police Vehicle Pursuits 2
AJ 086 F Values, Principles \& Ethics 0.5
AJ 087 F* $^{*} \quad$ Supervis. Resp. to Officer Involved Shooting 1
AJ 088 F* Gang Awareness Update 1.5
AJ 089 F Child Abuse/Child Pornography 0.5
AJ 090 F Weaponless Defense/Baton Training 0.5
AJ 091 F Law Enforcement Instructor Development 2
AJ 092 F Crime Scene Investigation 1
AJ 093 F DNA Genetic Fingerprinting 0.5
AJ 095 F Preventing Sexual Harassment 0.5
AJ 096 F CAD/Crime Scene Application 0.5
AJ 097 F Law Enforcement Supervisory Update $\underline{\underline{1.5}}$
Total Units:
*Prerequisite required

## ANTHROPOLOGY

## Associate in Arts Degree

The Associate in Arts Degree program requires a total of 19 units of which 13 units are in required courses. An additional 6 units must be chosen from the restricted units listed below.

| Required Courses (13 units) | Units |
| :--- | ---: |
| I. Required Courses -6 units | 3 |
| ANTH 101 F | Physical Anthropology |
| ANTH 102 F | Cultural Anthropology |
|  | 3 |
| II. Category A -7 units from the following: | Units |
| ANTH 101LF | Physical Anthropology Lab |
| ANTH 103 F | Intro to Archaeology |
| ANTH 105 F | Language and Culture |
| ANTH 107 F | Anthro. of Magic, Witchcraft, and Religion |
| ANTH 109 F | Primate Behavior |
| ANTH 209 F | Cultures of Latin America |
|  | 3 |
|  |  |

Restricted Electives (6 units)
Select two courses from the following: ..... Units
ANAT 231 F General Human Anatomy ..... 4
ANAT 240 F Human Physiology ..... 5
BIOL 266 F General Zoology ..... 5
BIOL 268 F General Botany ..... 5
BIOL 272 F Cell and Molecular Biology ..... 4
ETHS 101 F American Ethnic Studies ..... 4
ETHS 129 F Introduction to African-American Studies ..... 3
ETHS 140 F Introduction to Chicano/Chicana Studies ..... 3
ETHS 160 F History of the Native Americans ..... 3
ETHS 170 F Introduction to Asian American Studies ..... 3
GEOG 100 F Global Geography ..... 3
GEOG 102 F Physical Geography ..... 3
GEOG 160 F Cultural Geography ..... 3
ESC 100 F Physical Geology ..... 3
HIST 270 F Women in United States History ..... 3
PHIL 170 F Logic and Critical Thinking ..... 3
PHIL 172 F Critical Thinking/Writing ..... 3
PHIL 201 F History of Philosophy: Ancient and Medieval ..... 3
PHIL 202 F History of Philosophy: Modern and Contemp. ..... 3
PSY 101 F General Psychology ..... 3
PSY 161 F Elementary Statistics in Behavioral Sciences ..... 3
SOC 101 F Introduction to Sociology ..... 3

## ARCHITECTURE

## Associate in Science Degree

The curriculum leads to the Associate in Science Degree in architecture from Fullerton College. Courses are designed to fulfill requirements (admission is also based on a portfolio review) for transfer to a university for a Bachelor of Architecture (B.Arch.) Degree. The curriculum is also designed to prepare students for employment in the architectural profession. The program requires a minimum of 31 units.

| Required Courses (31-35 units) | Units |  |
| :--- | :--- | ---: |
| ARCH 111 F | Introduction to Architecture | 3 |
| ARCH 113 F | Architectural Drawing I | 3 |
| ARCH 124 F | Architectural CAD I | 3 |
| ARCH 924 F | Architectural CAD II | 3 |
| ARCH 934 F | Architectural CAD III | 3 |
| ARCH 944 F | Architectural CAD IV | 3 |
| ARCH 125 F | Design Studio I | 4 |
| ARCH 215 F | Design Studio II | 4 |
| ARCH 225 F | Design Studio III | 4 |
| ARCH 227 F | Internship in Architecture | $\underline{1-4}$ |
| Total Units: |  | $\mathbf{3 1 - 3 5}$ |

## Architectural CAD Technology Certificate

The Architectural CAD Technology Certificate program requires the completion of a minimum of 39 units, of which 30 are in required courses. An additional 9 units must be chosen from the restricted electives listed below.
Required Courses (minimum 30 units) Units
ARCH 111 F Introduction to Architecture ..... 3
ARCH 124 F Architectural CAD I ..... 3
ARCH 924 F Architectural CAD II ..... 3
ARCH 934 F Architectural CAD III ..... 3
ARCH 944 F Architectural CAD IV ..... 3
ARCH 227 F Internship in Architecture ..... 1-4
BUS 111 F Business Communications ..... 3
BUS 180 F Small Business Management ..... 3
COUN 141 F Career Exploration ..... 1
SPCH 100 F Public Speaking ..... 4
Restricted Electives (9 units) ..... Units
ACG 100 F Intro: Computer Graphics/Mac or ..... 3
BUS 266 F Human Relations in Business or ..... 3
DRAF 142 F Customizing AutoCAD or ..... 2
DRAF 143 F 3D Applications Using AutoCAD or ..... 2
CSTR 036 F Uniform Bldg Code - Residential or ..... 3
CSTR 037 F Uniform Bldg Code - Comm/Indstrl or ..... 3
SPCH 105 F Interpersonal Communication ..... 3
Total Units: ..... 39-42

## ART COMPUTER GRAPHICS

## Computer Animation/Multimedia Certificate

The Computer Animation/Multimedia Certificate program requires a total of 32 units of which 20 units are in required courses. An additional 12 units must be chosen from the restricted units listed below. This certificate provides the skills necessary to create animated and/or interactive projects for distribution on a variety of media, including DVD, web pages, videotape, CD-ROM, etc. A minimum grade of " $C$ " is required in each course taken.

| Select one of the Introduction classes (3 units) | Units |  |
| :--- | :--- | ---: |
| ACG 100 F | Intro: Computer Graphics/MAC | 3 |
| ACG 102 F | Intro: Web Graphics/MAC | 3 |
| ACG 104 F | Intro: 3D Graphics/Mac or | 3 |
| ACG 106 F | Intro: Dimensional Design/MAC | 3 |
| ACG 108 F | Survey of Graphics Software | 3 |

Required Art Introduction class (3 units) Units
ART 118 F Color Theory 3
ART 120 F Basic Design 3
Required Advanced Courses (14 units) Units
ACG 120 F 3D Modeling 3
ACG 150 F 3D Computer Animation for Mac 3
ACG 162 F Multi Media for Macintosh 3
ACG 164 F Multimedia Authoring 3
ART 144 F Fundamentals of Cartooning 2
Restricted Electives (12 units) Units
ACG 112 F Electronic Illustration 3
ACG 132 F Electronic Paint for Macintosh 3
ACG 140 F Desktop Publishing I for Mac 3
ACG 146 F Desktop Publishing II — MAC 3
ACG 170 F Digital Photography 3
ACG 180 F Digital Video 3
ART 123 F Business Practices in Art 3
ART 180 F Perspective Drawing and Rendering 3
ART 182 F Basic Drawing 3
ART 299 F Art Independent Study 1
MUS 124 F Recording Studio I 3
CRTV 150 F Television Studio Production 3
CRTV 164 F Adv. Digital Production/Non-Linear Editing 3
CRTV 245AF Digital Editing, Graphics and Effects 3
Total Units:
32

## Computer Graphics Certificate

The Computer Graphics Certificate program requires the completion of 30 units of which 24 units are in required courses. An additional 6 units must be chosen from the restricted units listed below. This certificate program provides the skills necessary to create digital drawings, paintings and illustrations, building a portfolio representative of the student's artistic talents and technical proficiency.

Required computer graphics introduction class (3 units), select one from a list below:

Units
ACG 100 F Intro: Computer Graphics/MAC 3
ACG 102 F Intro: Web Graphics/MAC 3
ACG 104 F Intro: 3D Graphics/Mac 3

ACG 106 F Intro: Dimensional Design/MAC 3
ACG 108 F Survey of Graphics Software
Required art introduction class (3 units), select one from the list below:

Units
ART 118 F Color Theory
3
ART 120 F Basic Design
Required Advanced classes (12 units) Units
ACG 112 F Electronic Illustration 3
ACG 132 F Electronic Paint for Macintosh 3
ACG 140 F Desktop Publishing I for Mac 3
ART 182 F Basio Drawing

Required Additional computer graphics classes
( 6 units), select two from the list below:
Units
ACG 140 F Desktop Publishing I for Mac
3
ACG 146 F Desktop Publishing II — MAC
ACG 170 F Digital Photography
Restricted Electives: (6 units)
Units
ACG 120 F 3D Modeling
3
ACG 140 F Desktop Publishing I for Mac 3
ACG 146 F Desktop Publishing II — MAC 3
ACG 150 F 3D Computer Animation for Mac 3
ACG 162 F Multi Media for Macintosh 3
ACG 164 F Multimedia Authoring 3
ACG 170 F Digital Photography 3
ACG 180 F Digital Video 3
ART 123 F Business Practices in Art 3
ART 145 F Publication Design 3
ART 146 F Advertising Design 3
ART 147 F Production Techniques/Graphic Designers 3
ART 180 F Perspective Drawing and Rendering
ART 299 F Art Independent Study
PRNT 101 F Introduction to Printing
PRNT 130 F Graphics
Total Units:

## Desktop Publishing Certificate

The Desktop Publishing Certificate program requires a total of 30 units of which 27 units are in required courses. An additional 3 units must be chosen from the restricted units listed below. This certificate program teaches digital publication design, building a portfolio representative of the student's artistic talents and technical proficiency.

Required computer graphics introduction class

(3 units), select one from the list below:

Units

ACG $100 \mathrm{~F} \quad$ Intro: Computer Graphics/MAC 3

ACG 102 F Intro: Web Graphics/MAC 3

ACG 104 F Intro: 3D Graphics/Mac 3

ACG 106 F Intro: Dimensional Design/MAC 3

ACG 108 F Survey of Graphics Software 3

Required art and printing classes (6 units),
select two from the list below:
ART 120 F Basic Design 3
PRNT 070 F Quick Printing and In-Plant Graphics 3
PRNT 075 F Electronic and Conventional Pre-Press 3
Required advanced classes: (18 units) Units
ACG 112 F Electronic Illustration 3
ACG 132 F Electronic Paint for Macintosh 3
ACG 140 F Desktop Publishing I for Mac 3
ACG 146 F Desktop Publishing II — MAC 3
ART 140 F Intro to Advertising and Graphic Design 3
ART 145 F Publication Design 3
Restricted Electives: (3 units) Units
ACG 120 F 3D Modeling 3
ACG 150 F 3D Computer Animation for Macintosh 3
ACG 162 F Multi Media for Macintosh 3
ACG 164 F Multimedia Authoring 3
ACG 170 F Digital Photography 3
ACG 180 F Digital Video 3
ART 118 F Color Theory 3
ART 120 F Basic Design 3
ART 123 F Business Practices in Art 3
ART 146 F Advertising Design 3
ART 147 F Production Techniques/Graphic Designers 3
ART 148 F Packaging Design 3
ART 180 F Perspective Drawing and Rendering 2
ART 182 F Basic Drawing 3
JOUR 227 F Newspaper Mngmt., Makeup and Editing
PRNT 070 F Quick Printing and In-Plant Graphics
PRNT 075 F Electronic and Conventional Pre-press
PRNT 101 F Intro to Printing
PRNT 130 F Graphics
Total Units:

## 3D Animation Certificate - Level II

3-D Animation Certificate - Level II is a continuation of the level I Basic Computer Graphics certificate with emphasis in 3-D animation software. This certificate provides the skill set required for entry-level employment in the 3-D animation and modeling industry. The Program requires a total of 15 units of which 9 units are in required courses. An additional 6 units must be chosen from the restricted units listed below. Units earned from level I certificate may not be used for level II certificate. Any advanced ACG course may replace required introduction to class of Level II if introduction was completed as part of the Level I certificate.

| Required Courses (9 units) | Units |  |
| :--- | :--- | ---: |
| ACG 104 F | Intro: 3D Graphics/Mac | 3 |
| ACG 120 F | 3D Modeling | 3 |
| ACG 150 F | 3D Computer Animation for Macintosh | 3 |
|  |  | Units |
| Restricted Electives (6 units) | 3 |  |
| ART 120 F | Basic Design | 3 |
| ART 182 F | Basic Drawing | 3 |
| ART 121 F | Three-Dimensional Design | 3 |
| ART 186AF | Beginning Life Drawing | $\underline{\mathbf{1 5}}$ |
| Total Units: |  |  |

## ART

## Advertising and Graphic Design Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. For employment in the advertising and graphic design industry students should also complete the two levels of Advertising and Graphic Design Certificates. This program is not designed to transfer to a UC or CSU institution but may transfer to a private school of art. The Advertising and Graphic Design Degree program requires a total of 18 units of which 12 units are in required courses. An additional 6 units must be chosen from the restricted units listed below.

| Required Courses (12 units) | Units |  |
| :--- | :--- | ---: |
| ACG 100 F | Intro: Computer Graphics/MAC | 3 |
| ART 140 F | Intro to Advertising and Graphic Design | 3 |
| ART 145 F | Publication Design | 3 |
| ART 147 F | Production Techniques/Graphic Designers | 3 |
|  |  | Units |
| Restricted Electives: (6 units) | 3 |  |
| ACG 112 F | Electronic Illustration | 3 |
| ACG 132 F | Electronic Paint for Macintosh | 3 |
| ACG 140 F | Desktop Publishing I for Mac or | 3 |
| ACG 146 F | Desktop Publishing II — MAC | 3 |
| ART 123 F | Business Practices in Art | 3 |
| ART 146 F | Advertising Design | 3 |
| ART 148 F | Packaging Design | $\mathbf{1 8}$ |
| Total Units: |  | $\mathbf{1 8}$ |

## Art - Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units from the following:

| One Art History course (3 units) |  | Units |
| :---: | :---: | :---: |
| ART 112 F | Art History: Ancient and Medieval or | 3 |
| ART 113 F | Art History: Renaissance to Modern or | 3 |
| ART 114 F | Art History: Impressionism to the Present or | or |
| ART 116 F | Art History - Mexico or | 3 |
| ART 212 F | Asian Art History | 3 |
| One course required from: (3 units) |  | Units |
| ART 120 F | Basic Design or | 3 |
| ART 182 F | Basic Drawing | 3 |
| One course required from: (3 units) |  | Units |
| ART 121 F | Three-Dimensional Design | 3 |
| ART 150AF | Ceramics: Beginning Handbuilding | 3 |
| ART 160 F | Fundamentals of Sculpture | 3 |
| ART 174AF | Jewelry: Fabrication | 3 |
| ART 176 F | Stained Glass | 3 |
| ART 185 F | Life Sculpture | 3 |
| And required (9-10 units) Und |  | Units |
| Any ART course except ART 110 F, ART 119 F, ART 179 F, ART 187 F, ART 190 F, or ART 194 F |  |  |
| Total Units: |  | 18-19 |
| Advertising and Graphic Design |  |  |
| Certificate |  |  |
| The Advertising and Graphic Design Certificate requires a total of 37 units of which 31 are in required courses. An additional 6 units must be chosen from the restricted units listed below. This certificate prepares students for a position in advertising, graphic and packaging design. A minimum grade of " C " is required in each course taken. |  |  |
| Required Courses (31 Units) |  | Units |
| ACG 100 F | Intro: Computer Graphics/MAC | 3 |
| ACG 112 F | Electronic Illustration | 3 |
| ACG 132 F | Electronic Paint for Macintosh | 3 |
| ACG 140 F | Desktop Publishing I for Mac or | 3 |
| ACG 146 F | Desktop Publishing II - MAC | 3 |
| ART 123 F | Business Practices in Art | 3 |
| ART 140 F | Intro to Advertising and Graphic Design | 3 |
| ART 145 F | Publication Design | 3 |
| ART 146 F | Advertising Design | 3 |
| ART 147 F | Production Techniques/Graphic Designers | 3 |
| ART 148 F | Packaging Design | 3 |
| ART 299 F | Art Independent Study | 1-2 |


| Restricted Electives (6 Units) |  |  |
| :--- | :--- | ---: |
| ACG 170 F | Digital Photography or | 3 |
| PHOT 101 F | Introduction to Photography | 3 |
| ART 118 F | Color Theory | 3 |
| ART 120 F | Basic Design | 3 |
| ART 144 F | Fundamentals of Cartooning | 2 |
| ART 182 F | Basic Drawing | 3 |
| PRNT 101 F | Intro to Printing | 3 |
| Total Units: |  | $\mathbf{3 7}$ |

## Illustration Certificate

The Illustration Certificate program consists of 30-31 units. There are a total of 21-22 required units and a total of 8 restricted elective units. This certificate is designed to emphasize concepts, strategies and skill development in order to facilitate the student's portfolio presentation, which may be appropriate for a variety of careers in the Commercial Arts field, including editorial and advertising illustration, concept design and illustration for products, conceptual art for the game and entertainment industry, and illustration for the toy and theme park industries. A minimum grade of " C " or better is required for each course taken.

| Required Art Courses: | Units |  |
| :--- | :--- | ---: |
| ART 120 F | Basic Design | 3 |
| ART 180 F | Perspective Drawing and Rendering | 3 |
| ART 182 F | Basic Drawing | 3 |
| ART 186AF | Beginning Life Drawing | 3 |
| ART 244 F | Illustration | 3 |
| ART 299 F | Art Independent Study | $1-2$ |
|  |  |  |
| Required Computer Graphics courses: | Units |  |
| ACG 100 F | Intro: Computer Graphics/MAC or | 3 |
| ACG 102 F | Intro: Web Graphics/MAC | 3 |
| ACG 112 F | Electronic lllustration | 3 |
|  |  |  |
| Restricted Electives: |  |  |
| Select 8 units from the list below: | 3 |  |
| ART 118 F | Color Theory | 3 |
| ART 123 F | Business Practices in Art | 3 |
| ART 131 F | Printmaking | 2 |
| ART 139 F | Fashion Sketching | 3 |
| ART 140 F | Intro to Advertising and Graphic Design | 2 |
| ART 144 F | Fundamentals of Cartooning | 3 |
| ART 146 F | Advertising Design | 2 |
| ART 181 F | Drawing from the Masters | 2 |
| ART 183 F | Representational Drawing | 2 |
| ART 184 F | Expressive Drawing | 2 |
| ART 188 F | Watercolor Painting | 3 |
| ART 189AF | Beginning Painting | 3 |
| ART 195 F | Anatomical Figure Drawing | 2 |
| ACG 120 F | 3D Modeling | 3 |
| ACG 150 F | 3D Computer Animation for Macintosh | 3 |
| Total Units: |  | $30-31$ |
|  |  |  |

## AUTOMOTIVE TECHNOLOGY

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree and employment in automotive specialties: tune-up and electrical, engine repair, automatic transmissions, brakes and suspensions, power trains, air conditioning, service writing, parts control.

Complete $\mathbf{2 4}$ or more units from the following list: Units Any Automotive course
MACH 116 F Machine Tools 2
TECH 081 F Technical Mathematics I 3
WELD 121AF Introduction to Welding 2

## Automatic Transmission Specialist Certificate

The Automatic Transmission Specialist Certificate program requires a total of 18 units in required courses. This program will help the student become employed as an automatic transmission specialist.

| Required Courses (18 units) | Units |  |
| :--- | :--- | ---: |
| AUTO 050 F | Automotive Specialty Practice | 2 |
| AUTO 065 F | Automotive Electrical \& Electronic Systems | 5 |
| AUTO 084 F | Automatic Transmission | 8 |
| AUTO 086 F | Automatic Transmission Fundamentals | 3 |

## Automotive Chassis Specialist Certificate

The Automotive Chassis Specialist Certificate program requires a total of 14 units of which 14 units are in required courses.

| Required Courses (14 units) | Units |  |
| :--- | :--- | ---: |
| AUTO 050 F | Automotive Specialty Practice | 2 |
| AUTO 065 F | Automotive Electrical \& Electronic Systems | 4 |
| AUTO 083 F | Brake and Suspension Systems Repair | 8 |
| Total Units: | $\mathbf{1 4}$ |  |

## Automotive Maintenance Specialist Certificate

The Automotive Maintenance Specialist Certificate program requires a total of 16 units of which 16 units are in required courses. This program will help the student become employed as an entry level automotive maintenance specialist.

| Required Courses (17 units) | Units |  |
| :--- | :--- | ---: |
| AUTO 050 F | Automotive Specialty Practice | 2 |
| AUTO 065 F | Automotive Electrical \& Electronic Systems | 4 |
| AUTO 082 F | Engine Performance/Driveability | 8 |
| AUTO 089 F | Automotive Air Conditioning | 3 |
| Total Units: | $\mathbf{1 7}$ |  |

## Automotive Management Certificate

The Automotive Management Certificate program leads to entry-level employment in dealerships, service establishments, or automotive centers. The certificate also assists students who will be starting self-employment in the auto industry. The emphasis is on automotive management rather than automotive repair. The Automotive Management Certificate program requires a total of 50 units of which 45 units are in required courses. An additional 5 units must be chosen from restricted electives listed below.
Required Courses (45 units) Units
AUTO 055 F Automotive Business Management ..... 5
AUTO 060 F Automotive Powertrains ..... 5
AUTO 065 F Automotive Electrical \& Electronic Systems ..... 5
AUTO 081 F Engine Rebuilding and Repair ..... 8
AUTO 082 F Engine Performance and Drivability ..... 8
AUTO 083 F Brake and Suspension Systems Repair ..... 8
AUTO 084 F Automatic Transmissions ..... 8
AUTO 086 F Automatic Transmission Fundamentals ..... 3
AUTO 089 F Automotive Air Conditioning ..... 4
COUN 141 F Career Exploration ..... 1
Restricted Electives (5 units) ..... Units
AUTO 051 F Internship in Automotive ..... 1-4
BUS 151 F Business Mathematics ..... 3
BUS 180 F Small Business Management ..... 3
BUS 266 F Human Relations in Business ..... 3
CIS 100 F Intro to Personal Computers ..... 3
ET 100 F Intro to Environmental Technology ..... 3
MACH 116 F Machine Tools ..... 2
TECH 081 F Technical Mathematics I ..... 3
Total Units: ..... 50

## Automotive Service Advisor Certificate

The Automotive Service Advisor Certificate program requires a total of 16 units of which 11 units are in required courses. An additional 5 units must be chosen from the restricted units listed below.

| Required Courses (11 units) | Units |  |
| :--- | :--- | ---: |
| AUTO 055 F | Automotive Business Management | 5 |
| BUS 180 F | Small Business Management | 3 |
| CIS 100 F | Intro to Personal Computers | 3 |
|  |  | Units |
| Restricted Electives (5 units) | 2 |  |
| AUTO 050 F | Automotive Specialty Practice | 4 |
| AUTO 131 F | Automotive Fundamentals | 3 |
| BUS 266 F | Human Relations in Business | $\mathbf{1 6}$ |
| Total Units: |  |  |

## Automotive Technology Certificate

The Automotive Technology Certificate program requires a total of 32 units of which 28 units are in required courses. An additional 4 units must be chosen from the restricted units listed below. A minimum grade of "C" is required in each course taken. At least half the units toward the certificate must be taken at Fullerton College.
Required Courses (28 units)AUTO 050 F Automotive Specialty Practice 2
AUTO 060 F Automotive Powertrains2
AUTO 065 F Automotive Electrical \& Electronic Systems ..... 4
AUTO 070 F Engine Reconditioning ..... 7
AUTO 072 F Automotive Engine Performance ..... 7
AUTO 073 F Brake Systems Repair ..... 7
AUTO 081 F Engine Rebuilding and Repair ..... 8
AUTO 082 F Engine Performance and Drivability ..... 8
AUTO 083 F Brake and Suspension Systems Repair ..... 8
AUTO 084 F Automatic Transmissions ..... 8
AUTO 086 F Automatic Transmission Fundamentals ..... 3
AUTO 088 F Fuel Systems and Adv. Drivability Diagnosis ..... 5
AUTO 089 F Automotive Air Conditioning ..... 3
AUTO 090 F Emission Control Sys. and Adv. Diagnosis ..... 6
AUTO 091 F Cylinder Head Repair ..... 4
Restricted Electives (4 units) ..... Units
MACH 116 F Machine Tools ..... 2
DRAF 070 F Blueprint Reading for the Metal Trades ..... 2
WELD 121AF Introduction to Welding ..... 2
WELD 121BF Fundamentals of Inert Gas Welding ..... 2
Total Units: ..... 32

## Emission Control Specialist Certificate

The Emission Control Specialist Certificate program requires a total of 16 units of which 16 units are in required courses. This program will help the student become employed as an automotive emissions testing and repair specialist and provide opportunities to study toward National Institute of Automotive Excellence (ASE) certification and toward the State of California emission control license examination.

Required Courses (16 units)
Units
AUTO 050 F Automotive Specialty Practice
2
AUTO 082 F Engine Performance and Drivability
8
AUTO 090 F Emission Control Sys. and Adv. Diagnosis
6
Total Units:

## Engine Performance Specialist Certificate

The Engine Performance Specialist Certificate program requires a total of 16 units of which all units are in required courses. This provides preparation for advanced entry level employment as an automotive technician who will specialize in engine performance diagnosis and drivability problem repair, and will also qualify the student to take the National Institute for Automotive Service Excellence (ASE) A6 Electrical and Electronics and A8 Engine Performance examinations.

Required Courses (16 units)
Units
AUTO 065 F Automotive Electrical \& Electronic Systems 4
AUTO 082 F Engine Performance and Drivability 8
AUTO 088 F Fuel Systems and Adv. Drivability Diagnosis $\quad 4$
Total Units:

## Fabrication Specialist Certificate

The Fabrication Specialist Certificate program requires a total of 17 units of which 17 units are required courses. This certification will be an important first step toward gaining employment in the automotive fabrication area where it is necessary to design and manufacture parts as well as repair them.

## Required Courses (17 units) Units

AUTO 055 F Automotive Business Management 5
AUTO 065 F Automotive Electrical \& Electronic Systems 4
DRAF 171 F Fundamentals of Drafting 2
MACH 116 F Machine Tools 2
WELD 121AF Introduction to Welding 2
WELD 121BF Fundamentals of Inert Gas Welding
Total Units:

## Light Repair Specialist Certificate

The Light Repair Specialist Certificate program requires a total of 16 units of which 16 are in required courses. Completion of this program will help the graduate find entry level employment as an automotive light repair specialist.

Required Courses (16 units) Units
AUTO 050 F Automotive Specialty Practice 2
AUTO 065 F Automotive Electrical \& Electronic Systems 4
AUTO 073 F Brake Systems Repair 7
AUTO 089 F Automotive Air Conditioning 3
Total Units:
16

## Manual Drive Train Specialist Certificate

The Manual Drive Train Specialist program requires a total of 12 units of which all units are in required courses. This program will help provide skills necessary to obtain employment in the area of manual transmission, transaxle, driveline, and axle repair. Students will study the material necessary to take the National Institute for Automotive Service Excellence (ASE) examinations in Manual Drive Train Axle repair and in Automotive Electricity and Electronics.
Required Courses (12 units) ..... Units
AUTO 050 F Automotive Specialty Practice ..... 2
AUTO 060 F Automotive Powertrains ..... 6
AUTO 065 F Automotive Electrical \& Electronic Systems ..... 4
Total Units: ..... 12

## BIOLOGY

## Associate in Arts Degree

The Biology Associate in Arts Degree program requires a total of 18 units of which 7-10 units are in required courses. An additional 8-11 units may be chosen from the required courses or restricted electives listed below.

Required Courses: (7-10 units) Units
ANAT 231 F General Human Anatomy 4
ANAT 240 F Human Physiology 5
BIOL 222 F Marine Biology 3
BIOL 266 F General Zoology 5
BIOL 268 F General Botany 5
BIOL 272 F Cell and Molecular Biology 4
BIOL 274 F General Ecology
BIOL 276 F Genetics and Evolutionary Biology
MICR 262 F General Microbiology

| Restricted Electives: (8-11 units) | Units |
| :--- | ---: |
| CHEM 111AF | General Chemistry |
| CHEM 111BF | General Chemistry |

## Biological Technician - Associate in Science Degree

The Biological Technician Associate in Science Degree program requires a total of 18 units, of which $9-10$ units are in required courses. An additional 8-9 units must be chosen from the restricted units listed below.

Complete 9-10 units from the following:
Units
BIOL 101 F General Biology or 5
BIOL 170 F Organismal Biology 5
BIOL 109 F Genetics and Biotechnology in Society 3
BIOL 109LF Genetics and Biotechnology in Society Lab 2
CHEM 101 F Introduction to Chemistry or 5
CHEM 107 F Elementary Chemistry 5
CIS 111 F Introduction to Information Systems 3
ELEC 100 F Direct Current/Alternating Current Theory $1-4$
ELEC 100LF Direct Current/Alternating Current Lab $1-2$
HORT 001 F Principles of Horticulture I 4
HORT 002 F Principles of Horticulture II 4
MICR 220 F Medical Microbiology 4
TECH 082 F Technical Mathematics II 3
Select additional 8-9 units from below: Units
BIOL 222 F Marine Biology 3
CHEM 111AF General Chemistry 5
HORT 205 F Applied Entomology 3
MICR 262 F General Microbiology 5
ESC 130 F Introduction to Oceanography 3
ESC 130HF Honors Intro to Oceanography 3
Total Units:

## BUSINESS

## Business Administration <br> Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units chosen from the list below. Any courses listed below taught as Honors courses will also apply to this AA degree.

| Complete 18 | units from the following: | Units |
| :--- | :--- | ---: |
| ACCT 101AF | Financial Accounting | 4 |
| ACCT 101BF | Managerial Accounting | 4 |
| BUS 100 F | Intro to Business | 3 |
| BUS 131 F | Principles of International Business | 3 |
| BUS 211 F | Writing for Business | 3 |
| BUS 240 F | Legal Environment of Business or | 3 |
| BUS 241AF* | Business Law | 3 |
| BUS 241BF | Business Law | 3 |
| CIS 111 F | Intro to Information Systems | 3 |
| ECON 101 F | Principles of Economics — Micro | 3 |
| ECON 102 F | Principles of Economics - Macro | 3 |
| MATH 120 F | Introductory Probability and Statistics | 4 |
| MATH 130 F | Calculus for Business or | 4 |
| MATH 150AF | Calculus I | 4 |
| MKT 100 F | Intro to Marketing | 3 |
| PHIL 160 F | Introduction to Ethics or | 3 |
| PHIL 170 F | Logic and Critical Thinking | 3 |
| Total Units: |  | $\mathbf{1 8}$ |

*See counselor for determination of correct course.

## Business Management Associate in Science Degree

The Associate in Science Degree in Business Management requires 29-30 units of which 29-30 units are required courses. Adding new course BUS 271 F to degree.

| Required Courses (6 units) | Units |  |
| :--- | :--- | ---: |
| BUS 262 F | Principles of Management | 3 |
| CIS 100 F | Intro to Personal Computers | 3 |
|  |  |  |
| One course from the following |  |  |
| for a total of $3-4$ units: | Units |  |
| ACCT 001 F | Accounting for Small Business or | 3 |
| ACCT 100BF | Financial Accounting Principles or | 3 |
| ACCT 101AF | Financial Accounting | 4 |
|  |  |  |
| One course from the following | Units |  |
| for a total of 3 units: | 3 |  |
| BUS 111 F | Business Communications or | 3 |
| BUS 211 F | Writing for Business |  |


| One course from the following for a total of 3 units: |  | Units |
| :---: | :---: | :---: |
| BUS 100 F | Intro to Business or | 3 |
| BUS 180 F | Small Business Management or | 3 |
| BUS 271 F | Leadership and Business Ethics | 3 |
| One course from the following for a total of 3 units: |  | Units |
| BUS 162 F | Business Economics or | 3 |
| ECON 101 F | Principles of Economics - Micro or | 3 |
| BUS 251 F | Business Finance | 3 |
| One course from the following for a total of 3 units: (See counselor for determination of correct course) |  | Units |
| BUS 240 F | Legal Environment of Business or | 3 |
| BUS 241AF | Business Law | 3 |
| One course from the following for a total of 3 units: |  | Units |
| BUS 266 F | Human Relations in Business or | 3 |
| BUS 267 F | Principles of Supervision | 3 |
| One course from the following for a total of 2 units: |  | Units |
| CIS 150 F | Introduction to the Internet or | 2 |
| MKT 151 F | Internet Marketing | 2 |
| One course f | from the following for a total of 3 units: | Units |
| MKT 100 F | Intro to Marketing or | 3 |
| BUS 224 F | International Marketing | 3 |
| Total Units: |  | 29 |

## Business and Technology Skills Certificate

The Business and Technology Skills Certificate requires a total of 38-44 units of which 28 units are required courses.

| Required Courses (28 units) | Units |  |
| :--- | :--- | ---: |
| BUS 111 F | Business Communications | 3 |
| BUS 151 F | Business Mathematics | 3 |
| BUS 262 F | Principles of Management | 3 |
| BUS 266 F | Human Relations in Business | 3 |
| CIS 100 F | Intro to Personal Computers | 3 |
| COUN 141 F | Career Exploration | 1 |
| OT 080 F | Keyboarding - Beginning | 1.5 |
| OT 081 F | Keyboarding: Speed and Accuracy | 1.5 |
| LANG 101 F | Elementary Foreign Language* or | 3 |
|  | Course which meets Multicultural Course |  |
| MKT 208 F | Requirement* | Principles of Selling |
| READ 142 F | College Reading: Logical Analysis/Evaluation | 3 |

Restricted Electives (10-16 units)
Student selects four electives that have been pre-approved by the counselor and program coordinator and that provide the skills required for the student's career path. Student is responsible for completing any necessary prerequisites.

|  | Units |
| :--- | ---: |
| BUS 061 F Business Skills Internship | $1-4$ |
| TECH Elective 1 | 3 |
| TECH Elective 2 | 3 |
| TECH Elective 3 | 3 |
| TECH Elective 4 | 3 |
| Total Units: | $\mathbf{3 8 - 4 4}$ |

*Students completing one year of high school algebra with a grade of " $C$ " or better meet the business mathematics (BUS 151 F) requirement; students completing a portfolio or MOUS tests (Word, Excel and Access) meet the requirement for personal computers (CIS 100 F); students who test out at 35 net WPM on a 5 minute timed test meet the keyboarding requirement (OT 080 F and OT 081 F ); and students who complete one year of high school foreign language with a grade of "C" or better meet the foreign language/multicultural course requirement (LANG 101 F ). Classes that satisfy the Multicultural Education Requirement are listed under Graduation Requirements in this catalog.

## Business Management Certificate

The Certificate in Business Management requires total of 29-30 units.


One course from the following for a total of 3 units: Units
BUS 162 F Business Economics
ECON 101 F Principles of Economics - Micro
BUS 251 F Business Finance

One course from the following for a total of 3 units:
(See counselor for determination of correct course)
Units
BUS 240 F Legal Environment of Business
BUS 241AF Business Law

| One course | from the following for a total of $\mathbf{3}$ units: | Units |
| :--- | :--- | ---: |
| BUS 090 F | Current Issues in Business | $0.5-3$ |
| BUS 262 F | Principles of Management | 3 |
| BUS 271 F | Leadership and Business Ethics | 3 |
| BUS 298 F | Advanced Topics in Business | $0.5-3$ |

One course from the following for a total of 3 units: Units
BUS 266 F Human Relations in Business 3
BUS 267 F Principles of Supervision 3
One course from the following for a total of 2 units: Units
CIS 150 F Introduction to the Internet 2
MKT 151 F Internet Marketing 2
BUS 269 F Managing Business Projects 2
One course from the following for a total of 3 units: Units
MKT 100 F Intro to Marketing 3
BUS 224 F International Marketing 3
Total Units:
29-30

## E-Business Development Certificate

The E-Commerce Business Development Certificate requires a total of 15-17 units of which 15-17 units are required courses.

## Required Courses (9 units)

Units
BUS 170 F Principles of E-Business 3
BUS 182 F Doing Business Online 2
CIS 150 F Introduction to the Internet 2
MKT 151 F Internet Marketing 2
One course from the following
for a total of 2-3 units: Units
BUS 180 F Small Business Management 3
BUS 181 F Business Plan Developments 2
One course from the following
for a total of 2-3 units:
Units
CIS $100 \mathrm{~F} \quad$ Intro to Personal Computers 3
CIS 105 F Spreadsheet I
2

One course from the following for a total of 2 units: Units
CIS 050 F Web Page Design I 2
CIS 152 F Web Page Design II (HTML)
2
Total Units:
Entrepreneurship Associate in Science DegreeThe Associate in Science Degree in Entrepreneurship:Small Business Management requires a total of 29-30 units ofwhich 29-30 units are required courses.
Required Courses (6 units) ..... Units
CIS 100 F Intro to Personal Computers ..... 3
BUS 180 F Small Business Management ..... 3
Choose one course from the following for a total of 3-4 units:
ACCT 001 F Accounting for Small Business ..... 3
ACCT 100BF Financial Accounting Principles ..... 3
ACCT 101AF Financial Accounting ..... 4
Choose one course from the following for a total of 3 units: ..... Units
BUS 111 F Business Communications ..... 3
BUS 211 F Writing for Business ..... 3
Choose one course from the following for a total of 3 units: ..... Units
BUS 100 F Intro to Business ..... 3
BUS 170 F Principles of E-Business ..... 3
Choose one course from the following for a total of 3 units: ..... Units
BUS 162 F Business Economics ..... 3
ECON 101 F Principles of Economics - Micro ..... 3
BUS 251 F Business Finance ..... 3
Choose one course from the following for a total of 2 units: ..... Units
BUS 181 F Business Plan Developments ..... 2
BUS 182 F Doing Business Online ..... 2
Choose one course from the following for a total of 3 units: (See counselor for determination of correct course) ..... Units
BUS 240 F Legal Environment of Business ..... 3
BUS 241AF Business Law ..... 3 ..... 3
Choose one course from the following for a total of 3 units: ..... Units
$\begin{array}{ll}\text { BUS } 266 \mathrm{~F} & \text { Human Relations in Busin } \\ \text { BUS } 267 \mathrm{~F} & \text { Principles of Supervision }\end{array}$ ..... 3
Choose one course from the following for a total of 3 units: ..... Units
MKT 100 F Intro to Marketing ..... 3
MKT 201 F Small Business Promotions ..... 3
Total Units:29-30

## Entrepreneurship Certificate

The Certificate in Entrepreneurship: Small Business Management requires a total of 29-30 units.

Required Courses (6 units) Units
CIS 100 F Intro to Personal Computers 3
BUS 180 F Small Business Management 3
One course from the following
for a total of 3-4 units:
Units
ACCT 001 F Accounting for Small Business
ACCT 100BF Financial Accounting Principles
ACCT 101AF Financial Accounting
One course from the following
for a total of 3 units:
Units
BUS 111 F Business Communications
BUS 211 F Writing for Business
One course from the following
for a total of 3 units:
Units
BUS 100 F Intro to Business
BUS 170 F Principles of E-Business
One course from the following
for a total of 3 units:
Units
BUS 162 F Business Economics 3
ECON 101 F Principles of Economics — Micro 3
BUS 251 F Business Finance
One course from the following
for a total of 2 units:
BUS 181 F Business Plan Developments
BUS 182 F Doing Business Online
BUS 269 F Managing Business Projects
One course from the following
for a total of 3 units: (See counselor
for determination of correct course)
BUS 240 F Legal Environment of Business
BUS 241AF Business Law
One course from the following
for a total of 3 units:
BUS 266 F Human Relations in Business
BUS 267 F Principles of Supervision
BUS 090 F Current Issues in Business
One course from the following
for a total of 3 units:
MKT 100 F Intro to Marketing
MKT 201 F Small Business Promotions
Total Units:

Units

Units

Units
Units
2
2
2

3
3

3
3
0.5-3

3
3
29-30

## International Business Management <br> Associate in Science Degree

The Associate in Science Degree in International Business
Management requires a total of 29-30 units of which all 29-30 are required courses.

Required Courses (15 units) Units
BUS 131 F Principles of International Business 3
BUS 132 F Principles of Import/Export 3
BUS 224 F International Marketing 3
BUS 225 F International Management 3
CIS 100 F Intro to Personal Computers 3
One course from the following
for a total of 3-4 units: Units
ACCT 001 F Accounting for Small Business 3
ACCT 100BF Financial Accounting Principles 3
ACCT 101AF Financial Accounting 4
One course from the following
for a total of 3 units:
BUS $111 \mathrm{~F} \quad$ Business Communications 3
BUS 211 F Writing for Business 3
One course from the following
for a total of 3 units:
$\begin{array}{lr}\text { BUS } 100 \mathrm{~F} \text { Intro to Business } & 3\end{array}$
BUS 180 F Small Business Management 3
One course from the following
for a total of 3 units: (See counselor
for determination of correct course) Units
BUS 240 F Legal Environment of Business 3
BUS 241AF Business Law 3
One course from the following
for a total of 2 units: Units
CIS 150 F Introduction to the Internet 2
MKT 151 F Internet Marketing 2
OT 070 F Business Protocol and Ethics 2
Total Units: 29-30

## International Business Certificate

The International Business Certificate requires a total of 9 units of which 9 units are required courses.

Required Courses (9 units)
Units
BUS 131 F Principles of International Business
BUS 132 F Principles of Import/Export
BUS 224 F International Marketing or
BUS 225 F International Management
Total Units:


## International Business Management Certificate

The Certificate for International Business Management requires a total of 29-30 units.

Required Courses (15 units) Units
BUS 131 F Principles of International Business 3
BUS 132 F Principles of Import/Export 3
BUS 224 F International Marketing 3
BUS 225 F International Management 3
CIS 100 F Intro to Personal Computers 3
One course from the following
for a total of 3-4 units:
Units
ACCT 001 F Accounting for Small Business 3
ACCT 100BF Financial Accounting Principles 3
ACCT 101AF Financial Accounting 4
One course from the following
for a total of 3 units:
Units
BUS 111 F Business Communications 3
BUS 211 F Writing for Business 3
One course from the following
for a total of 3 units:
Units
BUS 100 F Intro to Business 3
BUS 180 F Small Business Management
3

One course from the following
for a total of 3 units: (See counselor
for determination of correct course)
Units
BUS 240 F Legal Environment of Business 3
BUS 241AF Business Law
One course from the following
for a total of 2 units:
Units
CIS 150 F Introduction to the Internet 2
MKT 151 F Internet Marketing 2
OT 070 F Business Protocol and Ethics
Total Units:
29-30

## Managerial Communications Certificate

The Managerial Communications Certificate requires a total of 9 units of which 9 units are required courses.

Required Courses (9 units)
Units
BUS 211 F Writing for Business
3
BUS 290 F Managerial Communications 3
BUS 266 F Human Relations in Business or 3
MKT 208 F Principles of Selling
Total Units:
3

## Marketing Management <br> Associate in Science Degree

The Associate in Science Degree in Marketing Management requires a total of 29-30 units of which all 29-30 are required courses.

Required Courses (5 units) Units
CIS 100 F Intro to Personal Computers 3
MKT 151 F Internet Marketing 2
Choose one course from the following
for a total of 3-4 units: Units
Units
3
$\begin{array}{lll}\text { ACCT } 001 \mathrm{~F} & \text { Accounting for Small Business } & 3 \\ \text { ACCT 100BF } & \text { Financial Accounting Principles } & 3\end{array}$
$\begin{array}{lll}\text { ACCT 100BF } & \text { Financial Accounting Principles } & 3 \\ \text { ACCT 101AF } & \text { Financial Accounting } & 4\end{array}$
Choose one course from the following
for a total of 3 units:
BUS 111 F Business Communications 3
BUS 211 F Writing for Business 3
Choose one course from the following
for a total of 3 units:
BUS 100 F Intro to Business 3
BUS 180 F Small Business Management 3
Choose one course from the following
for a total of 3 units:
BUS 162 F Business Economics 3
ECON 101 F Principles of Economics - Micro 3
BUS 170 F Principles of E-Business 3
Choose one course from the following
for a total of 3 units: (See counselor
for determination of correct course) Units
BUS 240 F Legal Environment of Business 3
BUS 241AF Business Law 3
Choose one course from the following
for a total of 3 units:
MKT 100 F Intro to Marketing 3
BUS 224 F International Marketing 3
Choose one course from the following for a total of 3 units:

Units
MKT 103 F Principles of Advertising 3
MKT 205 F Multicultural Markets in U.S. 3
Choose one course from the following
for a total of 3 units:
Units
MKT 201 F Small Business Promotions 3
MKT 208 F Principles of Selling 3
Total Units: 29-30

## Project Management Certificate

The Project Management Certificate program requires a total of 6 units of which 6 units are in required courses.

## Required Courses (6 units)

Units
BUS 269 F Managing Business Projects
2
CIS 120AF Project Management I 2
CIS 120BF Project Management II
Total Units:

## CARPENTRY

Technology \& Engineering Division
Office: Bldg 700
714.992.7251

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units chosen from the following:
Select 18 units from the courses listed below: Units
ARCH 113 F Architectural Drawing I ..... 3
CSTR 006 F Residential Plumbing and Mech. Systems ..... 3
CSTR 014 F Contractor's License Law ..... 3
CSTR 018 F Residential Construction Practice II ..... 4
CSTR 020 F Remodeling and Additions Construction I ..... 4
CSTR 022 F Remodeling and Additions Construction II ..... 4
CSTR 032 F Uniform Plumbing Code ..... 3
CSTR 034 F National Electrical Code ..... 3
CSTR 036 F Uniform Building Code - Residential ..... 3
CSTR 038 F Uniform Mechanical Code ..... 3
CSTR 100 F Beginning Residential Construction ..... 4
CSTR 102 F Residential Finish Carpentry ..... 4
CSTR 104 F Concrete and Masonry ..... 3
CSTR 108 F Surveying for Builders ..... 2
CSTR 110 F Residential Estimating ..... 3
CSTR 112 F Construction Matls., Specs., and Purchasing ..... 2
CSTR 116 F Residential Construction Practice I ..... 4
WOOD 012 F Cabinetmaking/Millwork ..... 4
Total Units: ..... 18

## CHEMISTRY

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units of which 10 units are in required courses; the additional 8 units must be chosen from the restricted electives listed below.

| Required Courses (10 units) | Units |
| :--- | ---: |
| CHEM 111AF General Chemistry | 5 |
| CHEM 111BF General Chemistry | 5 |

Restricted Electives (8 units)
Units
CHEM 211AF Organic Chemistry I 5
CHEM 211BF Organic Chemistry II 5
PHYS 205 F Physics for the Life Sciences I 4
PHYS 206 F Physics for the Life Sciences II 4
PHYS 210 F Physics with Calculus for Life Sciences I 4
PHYS 211 F Physics with Calculus for Life Sciences II 4
PHYS 221 F General Physics I 4
PHYS 222 F General Physics II 4
PHYS 223 F General Physics III 4
MATH 150AF Calculus I 4
MATH 150BF Calculus II $\quad 4$
Total Units: 18

## CHILD DEVELOPMENT \& EDUCATION STUDIES

## Child Development and Education Studies Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree and/or employment as a teacher or assistant in private preschools or children's centers. The AA and CDES 225 F ECE: Student Teaching with Field Experience will meet the Title V Child Development Teacher Permit requirement. This degree requires a total of 21 units of which 18 units are in required courses. An additional 3 units must be chosen from the restricted units listed below. A minimum grade of " $C$ " is required in each course taken.

| Required Courses (18 units) | Units |  |
| :--- | :--- | ---: |
| CDES 110 F | Anti-Bias Perspective Seminar | 3 |
| CDES 120 F | Child Development | 3 |
| CDES 200 F | Adolescent Development | 3 |
| CDES 201 F | Child in the Home and Community | 3 |
| CDES 204 F | Introduction to Special Education | 3 |
| CDES 125 F | Observation and Assessment for |  |
|  | Early Learning and Development | 3 |

Units

| Restricted Electives (3 units) | Units |  |
| :--- | :--- | ---: |
| CDES 115 F | Intro. to Early Childhood Ed. Curriculum | 2 |
| CDES 122 F | Principles of Early Childhood Education | 3 |
| CDES 123AF | Early Childhood Art Education | 2 |
| CDES 123BF | Early Childhood Lang. and Literacy Ed. | 2 |
| CDES 123CF | Early Childhood Science and Math Ed. | 2 |
| CDES 123DF | Early Childhood Music Education | 2 |
| CDES 151 F | School Age Child: Programs/Curric./Guidance | 3 |
| CDES 131 F | Business Principles of Family Care | 3 |
| CDES 125 F | Observation and Assessment for |  |
|  | Early Learning and Development | 3 |
| CDES 238 F | Advanced Curriculum Design Seminar | 3 |
| Total Units: |  | $\mathbf{2 1}$ |

## EDUCATION DEGREES

## Associate in Arts Degree, Early Childhood Education

The program is designed to prepare students for working with young children from birth through the age of 8 and for employment in child development programs, public and private preschools, and children's centers. The program meets the basic course requirements for teachers in private preschools licensed by the California State Department of Social Services, and the Child Development Permit at the Associate Teacher Level issued by the Commission for Teacher Preparation and Licensing for teachers in public infant care; preschools, school age and children center programs. Upon completion of the Associates degree with a major in Early Childhood Education and after meeting the required employment experience hours, students would be eligible to apply for a Child Development Permit, Teacher Level. This requires the Associates degree plus an additional seven units early childhood education and the required hours of employment experience. Program: Total \# of units: 23
Required Courses (21 units) ..... Units
CDES 110 F Anti-Bias Perspective Seminar or ..... 3
PSY 131 F Cross Cultural Psychology ..... 3
CDES 115 F Intro to Early Childhood Ed. Curriculum ..... 3
CDES 120 F Child Development ..... 3
CDES 121AF Intro to Early Childhood Teaching ..... 2
CDES 121BF Intro to Early Childhood Teaching Laboratory ..... 1
CDES 122 F Principles of Early Childhood Education ..... 3
CDES 201 F Child in the Home and Community ..... 3
CDES 125 F Observation and Assessment for
Early Learning and Development ..... 3
Restricted Electives (2 units) ..... Units
CDES 123AF Early Childhood Art Education ..... 2
CDES 123BF Early Childhood Lang. and Literacy Ed. ..... 2
CDES 123CF Early Childhood Science and Math Ed. ..... 2CDES 123DF Early Childhood Music Education
Total Units: ..... 23

## Associate in Arts Degree, Elementary Education

The curriculum leads to an Associate in Arts Degree in Elementary Education. It is designed for students who will be transferring to a four-year institution, obtaining a bachelor's degree and pursuing a teaching credential through a California State University (CSU) integrated program or traditional program. This degree program meets the requirements of the Integrated and Streamlined Program at California State University, Fullerton. Course and degree requirements vary at respective universities. It is important to consult with a Fullerton College Teacher Preparation Counselor and respective university transfer representative to confirm program requirements and transferable work. Program: Total \# of units: 22
Required Courses (22 units) ..... Units
CDES 110 F Anti-Bias Perspective Seminar or ..... 3
PSY 131 F Cross Cultural Psychology ..... 3
CDES 261AF Intro to Elementary Classroom Teaching ..... 2
CDES 261BF Intro to Elementary Classroom Teaching: Observation ..... 1
ENGL 210 F Introduction to Language Structure and Use ..... 3
ENGL 239 F Survey of Children's Literature ..... 3
MATH 203 F Math for Future Elementary Teachers ..... 4
CDES 242 F Introduction to Liberal Studies ..... 3
Total Units:22
Liberal Studies: Teacher Preparation/ Elementary Associate in Arts Degree
(pending State approval)

The Associate Degree in "Liberal Studies: Teacher Preparation/Elementary" includes all lower division courses recommended by local CSU's to prepare students to transfer into Teacher Preparation programs and to take the Multiple Subject Exams. To complete the 18 units required for this major, students select 6 units from the list of core courses along with an additional 12 units from the list of core courses and/or from the list of recommended courses below.

## Restricted Electives (6 units)

Complete 6 units from the following core courses: Units
CDES 110 F Anti-Bias Perspective Seminar or 3
PSY 131 F Cross Cultural Psychology 3
CDES 120 F Child Development 3
CDES 204 F Introduction to Special Education 3
CDES 261AF Intro to Elementary Classroom Teaching 2
CDES 261BF $\begin{array}{lll} & \text { Introduction to Elementary Classroom } \\ & \text { Teaching: Observation } & 1\end{array}$
ENGL 239 F Survey of Children's Literature 3

| Restricted Electives (12 units) |  |  |
| :--- | :--- | ---: |
| Complete at least 12 additional units |  |  |
| from the previous list of core courses |  |  |
| and/or the following recommended courses: | Units |  |
| ART 110 F | Introduction to Art or | 3 |
| MUS 101 F | Music Fundamentals or | 3 |
| MUS 116 F | Music Appreciation or | 3 |
| THEA 100 F | Introduction to the Theatre | 3 |
| BIOL 101 F | General Biology or | 5 |
| BIOL 101HF | Honors General Biology | 5 |
| CDES 242 F | Introduction to Liberal Studies | 3 |
| COUN 110 F | Teaching As a Career | $3-4$ |
| ENGL 210 F | Introduction to Language Structure \& Use | 3 |
| ENGL 211 F | English Literature to 1800 or | 3 |
| ENGL 212 F | English Literature since 1800 or | 3 |
| ENGL 221 F | American Lit. to the Civil War or | 3 |
| ENGL 222 F | American Lit.: Civil War to the Present or | 3 |
| ENGL 224 F | World Lit. Through Early Modern Period | 3 |
| ENGL 225 F | World Lit. Since Early Modern Period | 3 |
| ESC 101 F | Earth Science Survey and | 3 |
| ESC 101LF | Earth Science Survey Lab | 1 |
| GEOG 100 F | Global Geography or | 3 |
| GEOG 100HF | Honors Global Geography | 3 |
| HIST 112 F | World Civilizations | 3 |
| HIST 127 F | Survey of American History or | 3 |
| HIST 170 F | History of the United States I | 3 |
| HIST 275 F | History of California and the Pacific Coast | 3 |
| MATH 203 F | Mathematics for Future Elementary Teachers | 3 |
| PHSC 103AF | Physical Sciences for Teachers: Physics and | 2 |
| PHSC 103BF | Physical Sciences for Teachers: Chemistry | 2 |
| POSC 100 F | American Government or | 3 |
| POSC 100HF | Honors American Government | 3 |
| Total Units: |  | 18 |
|  |  |  |

## Early Childhood Education Associate Teacher Certificate

The Associate Teacher Certificate exceeds the minimum requirements for a Title 22 qualified preschool teacher. This certificate also meets all the education requirements and provides 18 hours of the required 50 days of experience for the Title V Child Development Permit, Associate Teacher Level. The Associate Teacher Certificate requires a total of 15 units listed below. A minimum grade of " $C$ " is required in each course taken.
Required Courses (15 units) ..... Units
CDES 115 F Intro to Early Childhood Ed. Curriculum ..... 3
CDES 120 F Child Development ..... 3
CDES 121AF Intro to Early Childhood Teaching ..... 2
CDES 121BF Intro to Early Childhood Teaching Lab ..... 1
CDES 122 F Principles of Early Childhood Education ..... 3CDES 201 F Child in the Home and Community
Total Units:
15

## Early Childhood Education Administration Certificate

To qualify for the Early Childhood Education Administration Certificate, the student must have already met the minimum requirements for a State approved fully qualified teacher and must complete a total of 20 units of required courses. A minimum grade of " $C$ " is required in each course taken. See Child Development Permit Matrix for requirements needed for Title V programs. The Child Development Permit Matrix is available in the Social Sciences Division Office.

## Required Courses (20 units) <br> Units

CDES 110 F Anti-Bias Perspective Seminar 3
CDES 204 F Introduction to Special Education 3
CDES 205 F Creating Environments for Young Children 2
CDES 230 F Early Childhood Education Administration 3
CDES 231 F Early Childhood Education Administration II 3
CDES 215 F Health, Safety, Food, \& Nutrition for Children 3
CDES 240 F Leadership in Early Childhood Profession 3
Total Units:
20

## Early Childhood Education Teacher Certificate

The Early Childhood Education Teacher Certificate program requires the completion of 30 units of which 27 are in required courses. An additional 3 units must be chosen from the restricted electives listed below. A grade of "C" or better is required in each course taken. The certificate plus 16 units of general education will meet the Title V Child Development Permit, Teacher level requirements.

| Required Courses (27 units) | Units |  |
| :--- | :--- | ---: |
| CDES 110 F | Anti-Bias Perspective Seminar | 3 |
| CDES 115 F | Intro to Early Childhood Ed. Curriculum | 3 |
| CDES 120 F | Child Development | 3 |
| CDES 122 F | Principles of Early Childhood Education | 3 |
| CDES 125 F | Observation and Assessment for |  |
|  | Early Learning and Development | 3 |
| CDES 201 F | Child in the Home and Community | 3 |
| CDES 204 F | Introduction to Special Education | 3 |
| CDES 225 F | Early Childhood Teaching w/ Field Exp. | 3 |
| CDES 238 F | Advanced Curriculum Design Seminar | 3 |

A valid American Red Cross First Aid Card or equivalent must be on file.

| Restricted Electives (3 units) | Units |  |
| :--- | :--- | ---: |
| CDES 112 F | Teaching Peace | 2 |
| CDES 121AF | Intro to Early Childhood Teaching and | 2 |
| CDES 121BF | Intro to Early Childhood Teaching Laboratory | 1 |
| CDES 123AF | Early Childhood Art Education | 2 |
| CDES 123BF | Early Childhood Lang. and Literacy Ed. | 2 |
| CDES 123CF | Early Childhood Science and Math Ed. | 2 |
| CDES 123DF | Early Childhood Music Education | 2 |
| CDES 135 F | Early Childhood CPR and First Aid | 1 |
| CDES 141 F | Principles of Infant/Toddler Care and Ed. | 3 |
| CDES 200 F | Adolescent Development | 3 |
| CDES 206 F | Perceptual-Motor Development for Children | 2 |
| CDES 207 F | Principles and Techniques of Early Childhood |  |
|  | Special Education with Field Experience | 3 |
| CDES 208 F | Working with Families of Children with |  |
|  | Special Needs | 3 |
| CDES 215 F | Health, Safety, Food, \& Nutrition for Children | 3 |

Total Units:

## Family Child Care Certificate

The Family Child Care Certificate prepares the individual to be a licensed family childcare provider. Providers need to apply to the State Department of Social Services for licensing. The certificate requires completion of 15 units. A minimum grade of " $C$ " is required in each course taken.

## Required Courses (15 units) <br> Units

CDES 110 F Anti-Bias Perspective Seminar 3
CDES 120 F Child Development 3
CDES 131 F Business Principles of Family Care 3
CDES 132 F Environmts. \& Programs: Family Child Care 3
CDES 215 F Health, Safety, Food, \& Nutrition for Children 3
Students are encouraged to add coursework specific to the ages of children whose care is provided.
Total Units:

## Infant/Toddler Caregiver Certificate

This certificate is designed to educate caregivers for employment in programs serving infants and toddlers. It is also recommended for the Licensed Family Child Care Providers who care for very young children in their homes. Completion of this certificate will meet the State of California Title 22 requirements to teach infants and toddlers in a licensed facility. The Infant/ Toddler Caregiver Certificate requires completion of 21 units. A minimum grade of " $C$ " is required in each course taken.

Required Courses (21 units)
Units
CDES 110 F Anti-Bias Perspective Seminar 3
CDES 120 F Child Development 3
CDES 140 F Infant/Toddler Development and Observation 3
CDES 141 F Principles of Infant/Toddler Care and Ed. 3
CDES 201F Child in the Home and Community 3
CDES 208 F Working with Families of Children with Special Needs 3
CDES 215 F Health, Safety, Food, \& Nutrition for Children 3
Completion of this certificate will meet the requirements for six specialization units for the Title V Child Development Permit at the Master Teacher level.

Completion of the AA degree (transfer) in Child Development is strongly recommended for those students considering a professional career in the area of Infant Development.
Total Units:

## The Para-Professional in Education Certificate

The Certificate for Para-Professional in Education program requires a total of 18 units of which 18 units are in required courses.
Required Courses (18 units)

Units

CDES 120 F Child Development 3
CDES 204 F Introduction to Special Education 3
CDES 207 F Principles and Techniques of Early Childhood Special Education with Field Experience or 3
PSY 219 F The Human Services 3
CDES 208 F Working with Families of Children with Special Needs3

CDES 209 F Role of Para-Professional in Diverse Settings 3
CDES 211 F Classroom Practices for Diverse Learners 3
Total Units: $\quad \overline{18}$

## School Age Certificate

The School Age Certificate is designed to educate adults for employment in programs serving school-age children. Completion of this certificate will meet the State requirements for school age providers in a facility licensed for after-school care. The certificate requires a completion of 15 units of which 12 are required courses. An additional 3 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken.

## Required Courses (12 units)

## CDES 110 F Anti-Bias Perspective Seminar <br> CDES 120 F Child Deverment 3

Units

CDES 151 F Cnid Development 3
CDES 151 F School Age Child: Programs, Curriculum and Guidance

3
CDES 201 F Child in the Home and Community 3
Restricted Electives (3 units) Units
CDES 112 F Teaching Peace 2
CDES 123AF Early Childhood Art Education 2
CDES 123BF Early Childhood Language \& Literacy Ed. 2
CDES 123CF Early Childhood Science and Math Ed. 2
CDES 123DF Early Childhood Music Education 2
CDES 200 F Adolescent Development 3
$\begin{array}{ll}\text { CDES 208 F } & \begin{array}{l}\text { Working with Families of Children with } \\ \text { Special Needs }\end{array}\end{array}$
CDES 215 F Health, Safety, Food, \& Nutrition for Children 3
Completion of the required courses for this certificate plus CDES 200 F and 50 days experience (minimum of 3 hours/day) qualify for the school age emphasis for the Child Development Permit.

## Total Units:

## Weekend Associate Teacher Certificate

The Weekend Associate Teacher Certificate requires a total of 15 units of which 11 units are in required courses. An additional 4 units must be chosen from the restricted units listed below.

| Required Courses (11 units) | Units |  |
| :--- | :--- | ---: |
| CDES 120 F | Child Development | 3 |
| CDES 122 F | Principles of Early Childhood Education | 3 |
| CDES 135 F | Early Childhood Health \& Safety Education | 2 |
| CDES 201 F | Child in the Home and Community | 3 |
|  |  | Units |
| Restricted Electives (4 units) | 2 |  |
| CDES 123AF | Early Childhood Art Education | 2 |
| CDES 123BF | Early Childhood Language \& Literacy Ed. | 2 |
| CDES 123CF | Early Childhood Science and Math Ed. | 2 |
| CDES 123DF | Early Childhood Music Education | 2 |
| Total Units: | $\mathbf{1 5}$ |  |

## CINEMA-RADIO-TV

## Communications: General Associate in Arts Degree

The Communications Associate in Arts Degree program requires 18 units chosen from the list below. This A.A. Degree provides a solid foundation for students interested in all areas of Communications. This degree is especially beneficial to students interested in Broadcast Journalism.

| Required Courses (18 units) | Units |  |
| :--- | :--- | ---: |
| CRTV 118 F | Intro to Radio, TV and Film | 3 |
| CRTV 122 F | Audio Production Techniques | 3 |
| CRTV 129 F | Broadcast News | 3 |
| CRTV 135 F | Broadcast TV and Radio Announcing | 3 |
| CRTV 145 F | Radio/TV Sports Broadcasting | 3 |
| CRTV 150 F | Television Studio Production | 3 |
| CRTV 157 F | Digital Produc./Non-Linear Editing Video/Film | 3 |
| JOUR 101 F | Reporting and Writing | 3 |
| JOUR 102 F | Advanced Reporting and Writing | 3 |
| JOUR 110 F | Mass Media Survey | 3 |
| PHOT 101 F | Introduction to Photography | $\mathbf{3}$ |
| Total Units: |  | $\mathbf{1 8}$ |

## Radio Broadcasting Associate in Arts Degree

The Radio Broadcasting Associate in Arts Degree program requires a total of 18 units of which 15 units are in required courses. An additional 3 units must be chosen from the restricted electives listed below. Curriculum leads to the A.A. Degree in Radio Broadcasting and/or entry-level employment in radio broadcasting.

| Required Courses (15 units) | Units |  |
| :--- | :--- | ---: |
| CRTV 118 F | Intro to Radio, TV and Film | 3 |
| CRTV 122 F | Audio Production Techniques | 3 |
| CRTV 130 F | Broadcast Audio Production | 3 |
| CRTV 135 F | Broadcast TV and Radio Announcing | 3 |
| CRTV 235 F | On-Air Radio Broadcasting | 3 |
|  |  | Units |
| Restricted Electives (3 units) | 1 |  |
| CRTV 124 F | Broadcast Advertising Sales | 3 |
| CRTV 128 F | Writing for Radio, Television and Film | 3 |
| CRTV 129 F | Broadcast News | 3 |
| CRTV 133 F | Traffic Reporting | 3 |
| CRTV 145 F | Radio/TV Sports Broadcasting | $\mathbf{1 8}$ |
| Total Units: |  | $\mathbf{1 8}$ |

## Radio Production Associate in Arts Degree

The Radio Production Associate in Arts Degree program requires a total of 18 units of which 12 units are in required courses. An additional 6 units must be chosen from the restricted units listed below. Curriculum leads to the A.A. Degree in Radio Production and/or entry-level employment in radio broadcasting.
Required Courses (12 units) ..... Units
CRTV 118 F Intro to Radio, TV and Film ..... 3
CRTV 122 F Audio Production Techniques ..... 3
CRTV 128 F Writing for Radio, Television and Film ..... 3
CRTV 130 F Broadcast Audio Production
Units ..... Units
Restricted Electives (6 units)
CRTV 124 F Broadcast Advertising Sales ..... 1
CRTV 129 F Broadcast News ..... 3
CRTV 235 F On-Air Radio Broadcasting ..... 3
CRTV 290 F Internship in Communications ..... 2-4
CRTV 133 F Traffic Reporting ..... 3
CRTV 135 F Broadcast TV and Radio Announcing ..... 3
Total Units: ..... 18

## Television/Film Associate in Arts Degree

The Television/Film Associate in Arts Degree program requires a total of 18 units of which 6 units are in required courses. An additional 12 units must be chosen from the restricted units listed below.
Required Courses (6 units) ..... Units
CRTV 120 F Media Aesthetics ..... 3
CRTV 150 F Television Studio Production ..... 3
Restricted Electives (12 units) ..... Units
CRTV 118 F Intro to Radio, TV and Film ..... 3
CRTV 121 F The American Cinema ..... 3
CRTV 122 F Audio Production Techniques ..... 3
CRTV 126AF World Cinema to 1945 ..... 3
CRTV 126BF World Cinema 1946 to Present ..... 3
CRTV 127 F Screenwriting ..... 3
CRTV 128 F Writing for Radio, Television and Film ..... 3
CRTV 130 F Broadcast Audio Production ..... 3
CRTV 131 F Contemporary Cinema ..... 3
CRTV 157 F Digital Produc./Non-Linear Editing Video/Film ..... 3
CRTV 160 F Introduction to Filmmaking ..... 3
CRTV 164 F Advanced Digital Production/Non-Linear Editing for Video ..... 3
CRTV 175 F Documentary Filmmaking ..... 3
CRTV 196 F Communications Seminars ..... 0.5-3
CRTV 245AF Digital Editing, Graphics and Effects ..... 3
CRTV 245BF Advanced Digital Editing, Graphics \& Effects ..... 3
CRTV 280 F Television Production Workshop ..... 2-5
CRTV 290 F Internship in Communications ..... 2-4
JOUR 110 F Mass Media Survey ..... 3
Total Units: ..... 18

## Radio and Television/Video Production Certificate

The Radio and Television/Video Production Certificate prepares students for entry-level employment in the radio/ television/video broadcast journalism industries. This certificate requires a total of 37 units of which 32 are in required courses. An additional 5 units must be chosen from the restricted units listed below. A minimum grade of " $C$ " is required in each course taken.

| Required Courses (32 units) | Units |  |
| :--- | :--- | ---: |
| CRTV 118 F | Intro to Radio, TV \& Film | 3 |
| CRTV 122 F | Audio Production Techniques | 3 |
| CRTV 128 F | Writing for Radio, Television and Film | 3 |
| CRTV 129 F | Broadcast News | 3 |
| CRTV 130 F | Broadcast Audio Production | 3 |
| CRTV 135 F | Broadcast TV and Radio Announcing | 3 |
| CRTV 150 F | Television Studio Production | 3 |
| CRTV 157 F | Digital Produc./Non-Linear Editing Video/Film | 3 |
| CRTV 164 F | Advanced Digital Production/Non-Linear |  |
|  | Editing for Video | 3 |
| CRTV 235 F | On-Air Radio Broadcasting | 3 |
| CRTV 290 F | Internship in Communications | $2-4$ |


| Restricted Electives (5 units) | Units |  |
| :--- | :--- | ---: |
| CRTV 127 F | Screenwriting | 3 |
| CRTV 133 F | Traffic Reporting | 3 |
| CRTV 196 F | Communications Seminars | $0.5-3$ |
| CRTV 235 F | On-Air Radio Broadcasting | 3 |
| CRTV 280 F | Television Production Workshop | $2-5$ |
| CRTV 245AF | Digital Editing, Graphics and Effects | 3 |
| Total Units: |  | $\mathbf{3 7 - 3 9}$ |

## Radio Broadcasting Certificate

The Radio Broadcasting Certificate program requires the completion of 25 units of which 19 units are in required courses. An additional 6 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. Upon completion of this certificate program a student will be prepared for an entry-level position with a radio station.
Required Courses (19 units) ..... Units
CRTV 118 F Intro to Radio, TV and Film ..... 3
CRTV 122 F Audio Production Techniques ..... 3
CRTV 124 F Broadcast Advertising Sales ..... 1
CRTV 129 F Broadcast News ..... 3
CRTV 130 F Broadcast Audio Production ..... 3
CRTV 135 F Broadcast TV and Radio Announcing ..... 3
CRTV 235 F On-Air Radio Broadcasting ..... 3

| Restricted Electives (6 units) | Units |  |
| :--- | :--- | ---: |
| CIS 100 F | Intro to Personal Computers | 3 |
| CRTV 128 F | Writing for Radio, Television and Film | 3 |
| CRTV 235 F | On-Air Radio Broadcasting | 3 |
| CRTV 290 F | Internship in Communications | $2-4$ |
| SPCH 105 F | Interpersonal Communication | 3 |
| THEA 127 F | Oral Interpretation | 3 |
| THEA 129 F | Beginning Voice for Actors | 3 |
| CRTV 133 F | Traffic Reporting | 3 |
| Total Units: |  | $\mathbf{2 5}$ |

## Sports Broadcasting Certificate

The Sports Broadcasting Certificate requires a total of 16 units of which 13 units are in required courses. An additional 3 units must be chosen from the restricted units listed below. A minimum grade of " $C$ " is required in each course taken. Upon completion of this certificate program, a student will be prepared for entry-level position in radio, television or cable television sports broadcasting.

| Required Courses (13 units) | Units |  |
| :--- | :--- | ---: |
| CRTV 118 F | Intro to Radio, TV and Film | 3 |
| CRTV 122 F | Audio Production Techniques | 3 |
| CRTV 124 F | Broadcast Advertising Sales | 1 |
| CRTV 129 F | Broadcast News | 3 |
| CRTV 145 F | Radio/TV Sports Broadcasting | 3 |
|  |  | Units |
| Restricted Electives (3 units) | 3 |  |
| JOUR 101 F | Reporting and Writing | 3 |
| CRTV 130 F | Broadcast Audio Production | 3 |
| CRTV 135 F | Broadcast TV and Radio Announcing | 3 |
| CRTV 137 F | Television Announcing | 3 |
| CRTV 145 F | Radio/TV Sports Broadcasting | 3 |
| CRTV 150 F | Television Studio Production |  |
| CRTV 164 F | Advanced Digital Production/Non-Linear | 3 |
|  | Editing for Video | 3 |
| CRTV 235 F | On-Air Radio Broadcasting | $\mathbf{2 - 4}$ |
| CRTV 290 F | Internship in Communications | 3 |
| PE 247 F | Sports Management | $\mathbf{1 6}$ |
| Total Units: |  |  |

## Television/Film Production Certificate

The Television/Film Production Certificate program provides the background and skills needed for an entry-level position in the television/film industry. This certificate requires a total of 24 units of which 9 units are in required courses. An additional 6 units of restricted courses and at least 9 units of recommended electives must be chosen from the list below. A minimum grade of "C" is required in each course taken.
Required Courses (9 units)

Units

CRTV 118 F Intro to Radio, TV and Film 3

CRTV 120 F Media Aesthetics 3

CRTV 122 F Audio Production Techniques 3

Restricted Courses (3 units) Units
CRTV 150 F Television Studio Production 3
CRTV 157 F Digital Produc./Non-Linear Editing Video/Film 3
Restricted Courses (3 units) Units
CRTV 127 F Screenwriting 3
CRTV 128 F Writing for Radio, Television and Film 3
CRTV 129 F Broadcast News 3
Recommended Electives (9 units) Units
CRTV 030 F Media Industry Independent Contractor 1
CRTV 121 F The American Cinema 3
CRTV 126AF World Cinema to 19453
CRTV 126BF World Cinema 1946 to Present 3
CRTV 127 F Screenwriting 3
CRTV 128 F Writing for Radio, Television and Film 3
CRTV 129 F Broadcast News 3
CRTV 130 F Broadcast Audio Production 3
CRTV 131 F Contemporary Cinema 3
CRTV 135 F Broadcast TV and Radio Announcing 3
CRTV 150 F Television Studio Production 3
CRTV 157 F Digital Produc./Non-Linear Editing Video/Film 3
CRTV 160 F Introduction to Filmmaking 3
$\begin{array}{lll}\text { CRTV } 164 \text { F } & \text { Advanced Digital Production/Non-Linear } \\ & \text { Editing for Video }\end{array}$
CRTV 175 F Documentary Filmmaking 3
CRTV 196 F Communications Seminars 0.5-3
CRTV 245AF Digital Editing, Graphics and Effects 3
CRTV 245BF Advanced Digital Editing, Graphics \& Effects 3
CRTV 280 F Television Production Workshop 2-5
CRTV 290 F Internship in Communications $\quad \underline{2-4}$
Total Units: $\quad \overline{\mathbf{2 4}}$

## CIVIL ENGINEERING TECHNOLOGY

## Technology \& Engineering Division

Office: Bldg 700
714.992.7211

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree. This degree requires a minimum of 22 units chosen from the courses listed below.
Select 22 units from the courses listed below: ..... Units
ENGR 101AF Surveying I ..... 4
ENGR 102 F Engineering Drawing ..... 3
ENGR 105 F Engineering CAD ..... 4
ENGR 110 F Introduction to Engineering ..... 3
ENGR 201 F Statics ..... 3
ENGR 203 F Electric Circuits ..... 4
MATH 150AF Calculus I ..... 4
MATH 150BF Calculus II ..... 4
MATH 250AF Multivariable Calculus ..... 4
MATH 250BF Linear Algebra and Differential Equations ..... 4
CHEM 111AF General Chemistry ..... 5
CHEM 111BF General Chemistry ..... 5
PHYS 221 F General Physics I ..... 4
PHYS 222 F General Physics II ..... 4
PHYS 223 F General Physics IIITotal Units:22

## COMPUTER INFORMATION SYSTEMS

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in computer applications and computer information systems. This degree requires 30-31 units which must be chosen from the required courses listed below. (See college catalog for options for the Associate in Science Degree general education requirements.)
Required Courses (8 units) ..... Units
CIS 107 F Intro to Operating Systems ..... 2
CIS 180 F Intro to Networking Concepts ..... 3
CIS 217 F Visual Basic Programming I ..... 3
Choose one of the following for a total of 3-4 units: ..... Units
ACCT 001 F Accounting for Small Business ..... 3
ACCT 100BF Financial Accounting Principles ..... 3
ACCT 101AF Financial Accounting ..... 4

## Choose one of the following for a total of 3 units: Units

BUS 111 F Business Communications ..... 3
BUS 211 F Writing for Business ..... 3
Choose one of the following for a total of 2 units: ..... Units
BUS 182 F Doing Business Online ..... 2
MKT 151 F Internet Marketing ..... 2
Choose one of the following for a total of 3 units: ..... Units
CIS 100 F Intro to Personal Computers ..... 3
CIS 111 F Intro to Information Systems ..... 3
CIS 111HF Honors Intro to Information Systems ..... 3
Choose one of the following for a total of 2 units: Units
CIS 105 F Spreadsheet I ..... 2
CIS 205AF Spreadsheet II ..... 2
Choose one of the following for a total of 2 units: Units
CIS 142 F Database I ..... 2
CIS 242 F Database II ..... 2
Choose one of the following for a total of 2 units: ..... Units
CIS 150 F Introduction to the Internet ..... 2
CIS 151 F Internet Research ..... 2
Choose one of the following for a total of 2 units: Units
CIS 152 F Web Page Design II (HTML) ..... 2
CIS 252 F Web Page Design III ..... 2
Choose one of the following for a total of 3 units: Units
CIS 225 F Netware System Manager ..... 3
CIS 291 F Enterprise Networking ..... 3
Total Units: ..... 30-31
Computer Forensics Certificate (pending State approval)The Computer Forensics Certificate requires the completionof 15 units of which 12 units are in required classes listedbelow. A minimum grade of " C " is required in each course taken.At least one half of the units toward the certificate must be com-pleted at Fullerton College.
Required Courses (12 units) ..... Units
CIS 160 F Introduction to Computer Forensics ..... 3
CIS 180 F Intro to Networking Concepts ..... 3
CIS 165 F Computer Forensics and Networking ..... 3
CIS 166 F Operating Systems and Computer Forensics ..... 3
Restricted Electives (3 units) ..... Units
CIS 168 F Tools for Computer \& Network Forensics or ..... 3
CIS 171 F Network Intrusion and Detection or ..... 3
CIS 183 F Network Security Fundamentals ..... 3
Total Units: ..... 15

## Computer Information Systems Certificate

The Computer Information Systems Certificate requires the completion of 28-33 units chosen from the required courses listed below. A minimum grade of "C" is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (5 units) | Units |  |
| :--- | :---: | ---: |
| CIS 107 F | Intro to Operating Systems | 2 |
| CIS 180 F | Intro to Networking Concepts | 3 |

One course from the following
for a total of 3-4 units:
Units
ACCT 001 F Accounting for Small Business
3
ACCT 100BF Financial Accounting Principles
ACCT 101AF Financial Accounting
One course from the following
for a total of 3 units: Units
BUS 111 F Business Communications 3
BUS 211 F Writing for Business
One course from the following
for a total of 2 units: Units
BUS 182 F Doing Business Online 2
MKT 151 F Internet Marketing 2
CIS 298 F Advanced Computer Topics 0.5-3
One course from the following
for a total of 3 units: Units
CIS 100 F Intro to Personal Computers 3
CIS 111 F Intro to Information Systems 3
CIS 111HF Honors Intro to Information Systems
One course from the following
for a total of 2 units:
Units
CIS 105 F Spreadsheet I 2
CIS 205AF Spreadsheet II 2
CIS 205BF Macro Programming 2
One course from the following
for a total of 2 units:
Units
CIS 142 F Database I
CIS 242 F Database II
One course from the following
for a total of 2-3 units:
CIS 150 F Introduction to the Internet
CIS 151 F Internet Research
CIS 109 F Personal Computer Security
CIS 149 F Internet Entertainment

One course from the following for a total of 2-3 units:

Units
CIS 152 F Web Page Design II (HTML) 2
CIS 252 F Web Page Design III 2
CIS 212 F Robotic Programming 3
CIS 230 F PHP and MySQL Programming 3
CIS 154 F JavaScript Programming I 2
CIS 155 F Web Page Multimedia Design I 2
CIS 157 F Dreamweaver I 3
CIS 157BF Dreamweaver II 3
CIS 254 F JavaScript Programming II 2
CIS 255 F Web Page Multimedia Design II 2
CIS 109 F Personal Computer Security 2
One course from the following
for a total of 2-3 units: Units
CIS 217 F Visual Basic Programming I 3
CIS 219 F Visual Basic Programming II 3
CIS 218 F Visual Basic Programming III 3
CIS 220 F Web Server Programming 3
CIS 223 F Programming in C++ 3
CIS 226 F Java Programming I 3
CIS 228 F Java Programming II 3
CIS 257 F Dreamweaver III 3
CIS 229 F XML Programming 3
Choose one from the following
for a total of 2-3 units:
CIS $183 \mathrm{~F} \quad$ Network Security Fundamentals 3
CIS 225 F Netware System Manager 3
CIS 281 F Intro to Networking Hardware 3
CIS 285 F Windows Server 3
CIS 291 F Enterprise Networking 3
CIS 260 F Solaris System Administration 3
CIS 280 F Intro to Oracle: SQL and PL/SQL 3
Total Units:

## Computer Software Applications Specialist Certificate

The Computer Applications Software Specialist Certificate requires the completion of 36-37 units chosen from the required courses listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (27 units) |  | Units |
| :---: | :---: | :---: |
| CIS 048 F | Intro to PC Communications | 2 |
| CIS 050 F | Web Page Design I | 2 |
| CIS 090 F | Office Certification Preparation | 1 |
| CIS 104 F | Presentation Graphics | 2 |
| CIS 105 F | Spreadsheet I | 2 |
| CIS 107 F | Intro to Operating Systems | 2 |
| CIS 109 F | Personal Computer Security | 2 |
| CIS 123AF | Word Processing I (MS Word) | 2 |
| CIS 123BF | Word Processing II (MS Word) | 2 |
| CIS 142 F | Database I | 2 |
| CIS 150 F | Introduction to the Internet | 2 |
| CIS 151 F | Internet Research | 2 |
| CIS 152 F | Web Page Design II (HTML) | 2 |
| CIS 242 F | Database II | 2 |
| Choose one course from the following for a total of 3 units: |  | Units |
| CIS 100 F | Intro to Personal Computers | 3 |
| CIS 102 F | Intro to Open Source Software | 3 |
| Choose one course from the following for a total of 2 units: |  | Units |
| BUS 182 F | Doing Business Online | 2 |
| MKT 151 F | Internet Marketing | 2 |
| Choose one course from the following for a total of 2-3 units: |  | Units |
| CIS 153 F | Business Web Graphics | 2 |
| CIS 155 F | Web Page Multimedia Design I | 2 |
| CIS 157 F | Dreamweaver I | 3 |
| Choose one course from the following for a total of 2 units: |  | Units |
| CIS 205AF | Spreadsheet II | 2 |
| CIS 205BF | Macro Programming | 2 |
| Total Units: |  | 36-37 |
| Database Applications Certificate |  |  |
| The Database Applications Certificate prepares the student for a career using database applications software. This certificate requires a total of 8 units of which 8 units are in required courses. |  |  |
| Required Courses (8 units) |  | Units |
| CIS 142 F | Database I | 2 |
| CIS 242 F | Database II | 2 |
| CIS 218 F | Visual Basic Programming III | 3 |
| CIS 090 F | Office Certification Preparation | 1 |
| Total Units: |  | 8 |

## E-Commerce Programming Certificate

The E-Commerce Programming Certificate requires the completion of 15-16 units chosen from the required courses listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.
Required Courses (5 units) ..... Units
CIS 152 F Web Page Design II (HTML) ..... 2
CIS 180 F Intro to Networking Concepts ..... 3
Choose one of the following for a total of 2-3 units: Units
CIS 154 F JavaScript Programming I ..... 2
CIS 211 F Basic Programming for Business ..... 3
Choose one of the following for a total of 3 units: Units
CIS 217 F Visual Basic Programming I ..... 3
CIS 220 F Web Server Programming ..... 3
Choose one of the following for a total of 3 units: ..... Units
CIS 226 F Java Programming I ..... 3
CIS 230 F PHP and MySQL Programming ..... 3
Choose one of the following for a total of 2 units: ..... Units
CIS 252 F Web Page Design III ..... 2
CIS 254 F JavaScript Programming II ..... 2
Total Units: ..... 15-16

## Enterprise Database Certificate

The Enterprise Database Certificate program prepares the student for a career using enterprise database software. Skills include developing a database design, implementing the design in various databases, and managing a database environment. This certificate requires a total of 10 units of which 10 units are in required courses.

| Required Courses (10 units) | Units |  |
| :--- | :--- | ---: |
| CIS 142 F | Database I | 2 |
| CIS 242 F | Database II | 2 |
| CIS 270 F | SQL Server Administration | 3 |
| CIS 280 F | Intro to Oracle: SQL and PL/SQL | $\frac{3}{70}$ |
| Total Units: |  | $\mathbf{1 0}$ |

## Internet Certificate

The Internet Certificate requires the completion of 15 units chosen from the required courses listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Required Courses (11 units) Units
CIS 050 F Web Page Design I 2
CIS 107 F Intro to Operating Systems 2
CIS 149 F Internet Entertainment 3
CIS 152 F Web Page Design II (HTML) 2
MKT 151 F Internet Marketing 2
Choose one of the following for a total of 2 units: Units
CIS 150 F Introduction to the Internet 2
CIS 151 F Internet Research 2
Choose one of the following for a total of 2 units: Units
CIS 153 F Business Web Graphics 2
CIS 155 F Web Page Multimedia Design I 2
Total Units:

## Networking Certificate

The Networking Certificate prepares the student for a career using computer networks in business. This will include skills in installing and managing Windows networks. The Networking Certificate program requires a total of 15 units of which 12 are required and 3 may be chosen from the restricted electives listed. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.
Required Courses (12 units) ..... Units
CIS 180 F Intro to Networking Concepts ..... 3
CIS 183 F Network Security Fundamentals ..... 3CIS 285 F Windows ServerCIS 291 F Enterprise Networking
3
Restricted Electives (3 units) Units
CIS 260 F Solaris System Administration ..... 3
CIS 281 F Intro to Networking Hardware ..... 3
CIS 286 F Web Server Management ..... 3CIS 287 F Exchange ServerCIS 289 F Windows Active DirectoryCIS 290 F UNIX Operating System
Total Units:333

## PC Applications Certificate

The PC Applications Certificate requires the completion of 16 units chosen from the required courses listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (10 units) |  | Units |
| :---: | :---: | :---: |
| CIS 104 F | Presentation Graphics | 2 |
| CIS 105 F | Spreadsheet I | 2 |
| CIS 107 F | Intro to Operating Systems | 2 |
| CIS 142 F | Database I | 2 |
| CIS 242 F | Database II | 2 |
| Choose one of the following for a total of 2 units: |  | Units |
| CIS 050 F | Web Page Design I | 2 |
| CIS 150 F | Introduction to the Internet | 2 |
| Choose one of the following for a total of 2 units: |  | Units |
| CIS 048 F | Intro to PC Communications | 2 |
| CIS 109 F | Personal Computer Security | 2 |
| Choose one of the following for a total of 2 units: |  | Units |
| CIS 205AF | Spreadsheet II | 2 |
| CIS 205BF | Macro Programming | 2 |
| Total Units |  | 16 |

## Programming Certificate

The Programming Certificate requires a total of 15 units of which 12 units are in required classes. An additional 3 units must be chosen from the restricted units listed below. A minimum grade of " $C$ " is required in each course taken. At least one-half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (12 units) | Units |  |
| :--- | :--- | ---: |
| CIS 211 F | Basic Programming for Business | 3 |
| CIS 217 F | Visual Basic Programming I | 3 |
| CIS 218 F | Visual Basic Programming III | 3 |
| CIS 226 F | Java Programming I or | 3 |
| CIS 223 F | Programming in C++ | 3 |
|  |  | Units |
| Restrictive Electives (3 units) | 3 |  |
| CIS 212 F | Robotic Programming or | 3 |
| CIS 219 F | Visual Basic Programming II or | 3 |
| CIS 222 F | CGI/Perl Scripting or | 3 |
| CIS 228 F | Java Programming II or | 3 |
| CIS 229 F | XML Programming or | 3 |
| CIS 230 F | PHP and MySQL Programming | $\mathbf{3}$ |
| Total Units: |  | $\mathbf{1 5}$ |

Required Courses (12 units) Units
CIS 211 F Basic Programming for Business 3
CIS 218 F Visual Basic Programming III 3
CIS 226 F Java Programming I or 3
CIS 223 F Programming in C++ 3
Restrictive Electives (3 units) Units
CIS 212 F Robotic Programming or 3
CIS 219 F Visual Basic Programming II or 3
CIS 222 F CGI/Perl Scripting or 3
CIS 228 F Java Programming II or
CIS 230 F PHP and MySQL Programming
Total Units:


## Spreadsheet Applications Certificate

The Spreadsheet Applications Certificate prepares the student for a career using spreadsheet applications software. This certificate requires a total of 7 units of which 7 units are in required courses.

| Required Courses (7 units) | Units |  |
| :--- | :--- | ---: |
| CIS 105 F | Spreadsheet I | 2 |
| CIS 205AF | Spreadsheet II | 2 |
| CIS 205BF | Macro Programming | 2 |
| CIS 090 F | Office Certification Preparation | 1 |
| Total Units: |  | $\mathbf{7}$ |

## Web Design Certificate

The Web Design Certificate requires the completion of 12-15 units chosen from the required courses listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Choose one of the following for a total of 2 units: Units
CIS 107 F Intro to Operating Systems 2
CIS 120AF Project Management I 2
CIS 120BF Project Management II 2
Choose one of the following for a total of 2-3 units: Units
CIS 050 F Web Page Design I 2
CIS 157 F Dreamweaver I 3
Choose one of the following for a total of 2 units: Units
CIS 150 F Introduction to the Internet 2
CIS 152 F Web Page Design II (HTML) 2
CIS 159 F Introduction to XML 2
Choose one of the following for a total of 2 units: Units
CIS 153 F Business Web Graphics 2
CIS 155 F Web Page Multimedia Design I
Choose one of the following for a total of 2-3 units: Units
CIS 154 F JavaScript Programming I 2
CIS 180 F Intro to Networking Concepts 3
CIS 156AF WebMaster - Foundations 2
CIS 156BF WebMaster - Designer 3
CIS 156CF WebMaster - Administration 3
CIS 222 F CGI/Perl Scripting 3
CIS 252 F Web Page Design III 2
CIS 229 F XML Programming 3
Choose one of the following for a total of 2-3 units: Units
CIS 254 F JavaScript Programming II 2
CIS 255 F Web Page Multimedia Design II 2
CIS 157BF Dreamweaver II 3
CIS 257 F Dreamweaver III 3
Total Units: 12-15

## Web Scripting Certificate

The Web Scripting Certificate program prepares the student for a career using various Web scripting tools to create and manage databases. Skills include using typical Web scripting tools to create Web pages and Web sites. The Web Scripting Certificate requires a total of 11 units of which 11 units are in required courses.

| Required Courses (11 units) | Units |  |
| :--- | :--- | ---: |
| CIS 152 F | Web Page Design II (HTML) | 2 |
| CIS 252 F | Web Page Design III | 2 |
| CIS 154 F | JavaScript Programming I | 2 |
| CIS 254 F | JavaScript Programming II | 2 |
| CIS 230 F | PHP and MySQL Programming | $\frac{3}{11}$ |
| Total Units: |  | $\mathbf{1 1}$ |

## COMPUTER INFORMATION SYSTEMS - GAMING

## Computer Game Design Certificate (pending State approval)

The Game Design Certificate requires the completion of 15 units of which 12 units are in required classes listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (12 units) | Units |  |
| :--- | :--- | ---: |
| CISG 100 F | Intro to Computer Game Design | 3 |
| CISG 110 F | Intro to Programming for Computer Games | 3 |
| CIS 153 F | Business Web Graphics | 2 |
| CIS 155 F | Web Page Multimedia Design I | 2 |
| CIS 255 F | Web Page Multimedia Design II | 2 |
|  |  |  |
| Restricted Electives (3 units) | Units |  |
| CISG 160 F | C\# for Game Programming or | 3 |
| CISG 175 F | Game Programming in Flash or | 3 |
| CISG 170 F | Java for Game Programming | 3 |
| Total Units: |  | $\mathbf{1 5}$ |

## Computer Game Programming Certificate

(pending State approval)
The Game Programming Certificate requires the completion of 15 units of which 12 units are in required classes listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (12 units) | Units |  |
| :--- | :--- | ---: |
| CISG 100 F | Intro to Computer Game Design | 3 |
| CISG 110 F | Intro to Programming for Computer Games | 3 |
| CISG 182 F | DirectX Graphics Programming | 3 |
| CISG 190 F | Programming Multiuser Online Games | 3 |
|  |  |  |
| Restricted Electives (3 units) | Units |  |
| CISG 175 F | Game Programming in Flash or | 3 |
| CISG 170 F | Java for Game Programming or | 3 |
| CISG 160 F | C\# for Game Programming or | 3 |
| CISG 165 F | C++ for Game Programming or | 3 |
| CISG 185 F | Artificial Intelligence in Game Programming | 3 |
| Total Units: |  | $\mathbf{1 5}$ |

## COMPUTER SCIENCE

## Computer Science Associate in Science Degree

The Computer Science Associate in Science Degree program requires 24 units of which 20 units are in required courses. The additional 4 elective units must be chosen from the restricted electives listed below. A minimum of 8 CSCI units must be completed at Fullerton College. A minimum grade of " C " is required in all required courses and restricted electives.
Required Courses (20 units) Suggested sequence ..... Units
CSCI 123 F Intro to Programming Concepts in C++ ..... 4
CSCI 133 F Data Structures in C++ ..... 4
MATH 150BF Calculus II ..... 4
MATH 171 F Discrete Mathematics ..... 4
MATH 172 F Graph Theory and Linear Algebra ..... 4
Restricted Electives (4 units) ..... Units
CSCI 223 F C Language for Math \& Science ..... 4
CSCl 241 F Computer Org. \& Assembly Lang. Prog. ..... 4Total Units:24

## CONSTRUCTION

## Construction Estimating Certificate

The Construction Estimating Certificate program requires a total of 17 units in required courses. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (17 units) | Units |  |
| :--- | :--- | ---: |
| CSTR 015 F | Construction Management | 3 |
| CSTR 030 F | Construction Blueprint Reading | 3 |
| CSTR 060 F | Computer Estimating in Construction | 3 |
| CSTR 065 F | Construction Project Schedulng | 3 |
| CSTR 110 F | Residential Estimating | 3 |
| CSTR 112 F | Construction Matls., Specs., \& Purchasing | $\underline{2}$ |
| Total Units: |  | $\mathbf{1 7}$ |

## Construction Inspection

Associate in Science Degree
Curriculum leads to the Construction Inspection Associate in Science Degree and/or entry-level employment in the construction industry.

| Required Courses (18 units) | Units |  |
| :--- | :--- | ---: |
| CSTR 030 F | Construction Blueprint Reading | 3 |
| CSTR 032 F | Uniform Plumbing Code | 3 |
| CSTR 034 F | National Electrical Code | 3 |
| CSTR 036 F | Uniform Building Code: Residential | 3 |
| CSTR 037 F | Uniform Building Code: Comm./Industrial | 3 |
| CSTR 038 F | Uniform Mechanical Code | 3 |
| Total Units: | $\mathbf{1 8}$ |  |

## Construction Inspection Certificate

The Construction Inspection Certificate requires the completion of 25 units of which 15 units are in required courses. An additional 10 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (15 units) | Units |  |
| :--- | :--- | ---: |
| CSTR 032 F | Uniform Plumbing Code | 3 |
| CSTR 034 F | National Electrical Code | 3 |
| CSTR 036 F | Uniform Building Code: Residential | 3 |
| CSTR 037 F | Uniform Building Code: Comm./Industrial | 3 |
| CSTR 038 F | Uniform Mechanical Code | 3 |
|  |  | Units |
| Restricted Electives (10 units) | 3 |  |
| CSTR 006 F | Residential Plumbing/Mech Systems | 3 |
| CSTR 030 F | Construction Blueprint Reading | 3 |
| CSTR 104 F | Concrete and Masonry | 2 |
| CSTR 108 F | Surveying for Builders | 3 |
| TECH 081 F | Technical Mathematics I | 3 |
| TECH 088 F | Technical Science | 1 |
| TECH 127 F | Industrial Safety | $\mathbf{2 5}$ |
| Total Units: |  |  |

## Construction Management <br> Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in the construction industry. A total of 24 units are required. High School preparation: woodwork, drafting, and mathematics are recommended.

## Complete 24 or more units from the following list: Units

ACCT 101AF Financial Accounting 4
BUS 100 F Intro to Business 3
BUS 180 F Small Business Management 3
CIS 100 F Intro to Personal Computers 3
CSTR 014 F Contractor's License Law 3
CSTR 015 F Construction Management 3
CSTR 030 F Construction Blueprint Reading 3
CSTR 110 F Residential Estimating 3
CSTR 112 F Construction Matls., Specs., \& Purchasing $\quad 3$
Total Units:

## Construction Technology

Associate in Science Degree
The Construction Technology Associate in Science Degree requires 24 units from the following catalog list of classes.

Complete 24 or more units from the following list: Units
CSTR 006 F Residential Plumbing/Mech. Systems 3
CSTR 007 F Residential Electrical Systems 2
CSTR 014 F Contractor's License Law 3
CSTR 018 F Residential Construction Practice II 4
CSTR 030 F Construction Blueprint Reading 3
CSTR 042 F Residential Steel Frame Construction 4
CSTR 100 F Beginning Residential Construction 4
CSTR 102 F Residential Finish Carpentry 4
CSTR 104 F Concrete and Masonry 3
CSTR 108 F Surveying for Builders 2
CSTR 110 F Residential Estimating 3
CSTR 112 F Construction Matls., Specs., \& Purchasing 2
CSTR 116 F Residential Construction Practice I 4
WOOD 110 F Fundamentals of Woodwork
Total Units:

## Construction Technology Certificate

The Construction Technology Certificate program requires a total of 29 units of which 17 units are in required courses. An additional 12 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College. Any course offered in the construction technology department (ARCH, CSTR or WOOD) will fulfill requirements for the restricted electives. The certificate leads to entry-level employment in the construction industry.
Required Courses (17 units) ..... Units
CSTR 006 F Residential Plumbing/Mech. Systems ..... 3
CSTR 100 F Beginning Residential Construction ..... 4
CSTR 104 F Concrete and Masonry ..... 3
CSTR 110 F Residential Estimating ..... 3
Restricted Electives (12 units) ..... Units
CSTR 005 F Construction Technology Lab ..... 0.5-2
CSTR 007 F Residential Electrical Systems ..... 2
CSTR 014 F Contractor's License Law ..... 3
CSTR 015 F Construction Management ..... 3
CSTR 016 F Business Admin. for Construction Industry ..... 3
CSTR 018 F Residential Construction Practice II ..... 4
CSTR 020 F Remodeling and Additions Construction I ..... 4
CSTR 022 F Remodeling and Additions Construction II ..... 4
CSTR 028 F Intro to Alternate Energy ..... 2
CSTR 030 F Construction Blueprint Reading ..... 3
CSTR 031 F International Building Code ..... 3
CSTR 032 F Uniform Plumbing Code ..... 3
CSTR 033 F Commercial Construction Blueprint Reading ..... 3
CSTR 034 F National Electrical Code ..... 3
CSTR 035 F CA Accessibility \& Energy Costs ..... 3
CSTR 036 F Uniform Bldg. Code - Residential ..... 3
CSTR 037 F Uniform Bldg. Code - Commercial/Industrial ..... 3
CSTR 038 F Uniform Mechanical Code ..... 3
CSTR 039 F Commercial Mechanical Code ..... 3
CSTR 040 F Building Design for Hazardous Materials ..... 3
CSTR 041 F International Residential Code ..... 3
CSTR 042 F Residential Steel Frame Construction ..... 4
CSTR 050 F Computer Design Software/Contractor ..... 2
CSTR 060 F Computer Estimating in Construction ..... 3
CSTR 065 F Construction Project Scheduling ..... 3
CSTR 108 F Surveying for Builders ..... 2
CSTR 112 F Construction Matls., Specs., \& Purchasing ..... 2
CSTR 116 F Residential Construction Practice I ..... 4
Total Units: ..... 29

## COSMETOLOGY

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree and prepares the student to pass the California Bureau of Barbering and Cosmetology board examination. The program requires 55 units in required courses.

Required Courses (55 units):
Units
COSM 055AF Cosmetology: Level 1
COSM 055BF Cosmetology: Level 2
COSM 055CF Cosmetology: Level 3
COSM 055DF Cosmetology: Level 4
COSM 055EF Cosmetology: Level 5
Total Units:

## Cosmetology Certificate

The Cosmetology Certificate requires the completion of 55 units with a grade of "C" or better in each course taken. At least one half of the units completed must be taken at Fullerton College.
$\begin{array}{lr}\text { Required Courses (55 units) } & \text { Units } \\ \text { COSM 055AF Cosmetology: Level 1 } & 11 \\ \text { COSM 055BF Cosmetology: Level } 2 & 11 \\ \text { COSM 055CF Cosmetology: Level 3 } & 11 \\ \text { COSM 055DF Cosmetology: Level 4 } & 11 \\ \text { COSM 055EF Cosmetology: Level 5 } & \mathbf{1 1} \\ \text { Total Units: } & \mathbf{5 5}\end{array}$

## Cosmetology Instructor <br> Associate in Science Degree

Curriculum leads to the Cosmetology Instructor Associate in Science Degree requires a total of 18-19 units of which 15 units are in required courses. An additional 3-4 units must be chosen from the restricted electives listed below. This program is designed to introduce and/or expand Pivot Point principles and advanced techniques.

## Required Courses (15 units)

Units
COSM 060 F Instruction Techniques in Cosmetology
15
Restricted Electives (3-4 units)
Units
COSM 061AF Pivot Point Instruction I
1
COSM 061BF Pivot Point Instruction II
COSM 061CF Pivot Point Instruction III
COSM 070 F Cont. Ed. Instruction Techs./Cosmetology
Total Units:

## Esthetician Certificate

The Esthetician Certificate requires the completion of 20 units with a grade of "C" or better in each course taken. At least one half of the units completed must be taken at Fullerton College.

Required courses (20 units)

Units

COSM 041 F Esthetician: Level 1

COSM 042 F Esthetician: Level 2

$\frac{10}{20}$

## DANCE

## Associate in Arts Degree

The Dance Associate in Arts Degree program requires a total of 18 units of which 14 units are in required courses. An additional 4 units must be chosen from the restricted units listed below.

## Required Courses (14 Units) <br> Units <br> DANC 103 F Dance Technique I or 1

DANC 104 F Dance Technique II 1
DANC 105 F Ballet I or 1
DANC 106 F Ballet II 1
DANC 107 F Modern Dance I or 1
DANC 108 F Modern Dance II 1
DANC 111 F Jazz I or 1
DANC 112 F Jazz II 1
DANC 120 F Dance History 3
DANC 202 F Dance Composition/Choreography 2
DANC 203 F Dance Production 2
DANC 204 F Dance Rehearsal and Performance 1
DANC 205 F Dance Ensemble 2
Restricted Electives (2 Units)
Select 2 Units from the following: Units
DANC 110 F Ballet Folklorico 1
DANC 115 F Hip Hop Dance I 1
DANC 130 F Afro-Caribbean Dance 1
DANC 132 F Flamenco Dance I 1
Restricted Electives (2 units)
Select 2 Units from the following: Units
DANC 102 F Conditioning for Dance 1
DANC 113 F Tap Dance I
DANC 114 F Tap Dance II 1
DANC 119 F Dance for Theatre
DANC 214 F Dance Repertory
Total Units:

## Dance Technique Certificate

The Dance Technique Certificate program requires a total of 17 units of which 14 units are in required courses. An additional 3 units must be chosen from the restricted units listed below.

| Required Courses (14 units) | Units |  |
| :--- | :--- | ---: |
| DANC 120 F | Dance History | 3 |
| DANC 210 F | Multicultural Dance in U.S. Today | 3 |
| DANC 105 F | Ballet I | 1 |
| DANC 106 F | Ballet II | 1 |
| DANC 107 F | Modern Dance I | 1 |
| DANC 108 F | Modern Dance II | 1 |
| DANC 111 F | Jazz I | 1 |
| DANC 112 F | Jazz II | 1 |
| DANC 150 F | Commercial Dance | 1 |
| DANC 113 F | Tap Dance I | 1 |
|  |  | Units |
| Restricted Electives (3 units) | 1 |  |
| DANC 130 F | Afro-Caribbean Dance | 1 |
| DANC 110 F | Ballet Folklorico | 1 |
| DANC 132 F | Flamenco Dance I | 1 |
| DANC 116 F | Social Dance | 1 |
| DANC 115 F | Hip Hop Dance I | 1 |
| DANC 122 F | Middle Eastern Dance | 1 |
| DANC 151 F | Latin Jazz | $\mathbf{1 7}$ |
| Total Units: |  |  |

## INDUSTRIAL DRAFTING

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in a variety of industries. A total of 24 units are required.

Complete 24 or more units from the following list: Units
DRAF 140 F AutoCAD for Industry
2
DRAF 141 F Advanced CAD for Industry 2
DRAF 142 F Customizing AutoCAD 2
DRAF 143 F 3D Applications Using AutoCAD 2
DRAF 145 F CAD/CAM 2
DRAF 171 F Fundmentals of Drafting 2
DRAF 173 F Geometric Dimensioning and Tolerancing 2
DRAF 944 F Parametric Solid Modeling 3
DRAF 958 F Electronic Drafting Using AutoCAD 2
ENGR 102 F Engineering Drawing 3
MACH 116 F Machine Tools 2
TECH 108 F Manufacturing Processes $\quad 3$
Total Units: 24

## AutoCAD for Industrial Drafting Certificate

The AutoCAD for Industrial Drafting Certificate program requires completion of all 9 units in required courses. A grade of " $B$ " or better is required in each course taken. All units toward the certificate must be completed at Fullerton College. The goal of this certificate is to provide preparation for entry-level employment as a user of the AutoCAD computer aided design software application in an industrial setting.

| Required Courses (9 units) | Units |  |
| :--- | :--- | ---: |
| DRAF 141 F | Advanced CAD for Industry | 2 |
| DRAF 142 F | Customizing AutoCAD | 2 |
| DRAF 143 F | 3D Applications Using AutoCAD | 2 |
| DRAF 944 F | Parametric Solid Modeling | 3 |
| Total Units: | $\mathbf{9}$ |  |

Industrial Drafting - Level I Certificate
The Industrial Drafting — Level I Certificate a total of 18 units with a grade of " $C$ " or better in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required (6 units) | Units |  |
| :--- | :--- | ---: |
| DRAF 070 F | Blueprint Reading for the Metal Trades | 2 |
| DRAF 140 F | AutoCAD for Industry | 2 |
| DRAF 173 F | Geometric Dimensioning and Tolerancing | 2 |
|  |  | Units |
| Restricted Electives (12 units) | 3 |  |
| DRAF 171 F | Fundmentals of Drafting | 2 |
| DRAF 958 F | Electronic Drafting Using AutoCAD | 3 |
| ENGR 102 F | Engineering Drawing | 2 |
| MACH 116 F | Machine Tools | 3 |
| TECH 081 F | Technical Mathematics I | 3 |
| TECH 088 F | Technical Science | 2 |
| WELD 121AF | Introduction to Welding | $\mathbf{1 8}$ |
| Total Units: |  |  |

## Industrial Drafting - Level II Certificate

The Industrial Drafting - Level II Certificate requires completion of the Level I Certificate plus a minimum of 18 units of required courses. A grade of " $C$ " or better is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Completion of Level I Certificate, plus:
Required Courses (18 units) Units
DRAF 141 F Advanced CAD for Industry 2
DRAF 143 F 3D Applications Using AutoCAD 2
DRAF 145 F CAD/CAM 2
DRAF 142 F Customizing AutoCAD 2
TECH 108 F Manufacturing Processes 3
DRAF 944 F Parametric Solid Modeling $\quad 3$
Total Units:
18

## EARTH SCIENCES

## Astronomy Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units of which 17 are in required courses; an additional 1 unit must be chosen from the restricted electives listed below.

| Required Courses (17 units) | Units |  |
| :--- | :--- | ---: |
| ESC 116 F | Astronomy | 3 |
| ESC 116LF | Astronomy Lab | 2 |
| PHYS 221 F | General Physics I | 4 |
| PHYS 222 F | General Physics II | 4 |
| PHYS 223 F | General Physics III | 4 |
|  |  | Units |
| Restricted Electives (1 unit) | 5 |  |
| CHEM 111AF | General Chemistry | 5 |
| CHEM 111BF | General Chemistry | 4 |
| MATH 150AF | Calculus I | 4 |
| MATH 150BF | Calculus II | 4 |
| MATH 250AF | Multivariable Calculus | 4 |
| MATH 250BF | Linear Algebra and Differential Equations | $\mathbf{4}$ |
| Total Units: |  | $\mathbf{1 8}$ |

## ECONOMICS

## Associate in Arts Degree

The Economics AA Degree program requires a total of 18 units of which 6 are in required courses. An additional 12 units must be chosen from the restricted units listed below.

## Required Courses (6 units)

Units
ECON 101 F Principles of Economics - Micro or
ECON 101HF Honors Principles of Economics - Micro 3

ECON 102 F Principles of Economics - Macro or ECON 102HF Honors Principles of Economics - Macro 3
Units
Restricted Electives (12 units)
ACCT 101AF Financial Accounting
MATH 120 F Introductory Probability and Statistics
MATH 130 F Calculus for Business
MATH 150AF Calculus I
MATH 150BF Calculus II
4
PHIL 100 F Introduction to Philosophy
PHIL 160 F Introduction to Ethics
PHIL 165 F Business and Professional Ethics
BUS 131 F Principles of International Business
4
4
4
HIST 110 F Western Civilization I 4
HIST 111 F Western Civilization II
HIST 170 F History of the United States I 3
HIST 171 F History of the United States II 3
ENGL 102 F Introduction to Literature 3
Foreign Language 203F Intermediate
Foreign Language 204F Intermediate
Total Units:

## EDUCATIONAL DEGREES

(see Child Development and Educational Studies)

## ENGINEERING

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree. This degree requires a minimum of 22 units chosen from the courses listed below.

| Select 22 units from the courses listed below: | Units |
| :--- | ---: |
| CHEM 111AF | General Chemistry |
| CHEM 111BF | General Chemistry |
| ENGR 101AF | Surveying I |
| ENGR 102 F | Engineering Drawing |
| ENGR 105 F | Engineering CAD |
| ENGR 110 F | Intro to Engineering |
| ENGR 201 F | Statics |
| ENGR 203 F | Electric Circuits |
| MATH 150AF | Calculus I |
| MATH 150BF | Calculus II |
| MATH 250AF | Intermediate Calculus |
| MATH 250BF | Linear Algebra and Differential Equations |
| PHYS 221 F | General Physics I |
| PHYS 222 F | General Physics II |
| PHYS 223 F | General Physics III |
| Total Units: |  |

## ENGLISH

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree is designed to prepare students to read and write about literature critically and to understand key historical and generic influences in the production and reception of literature and other cultural texts. The degree requires 18 units, of which 12 are in required courses. An additional six units must be selected from the restricted electives listed below.

4

## Required:

ENGL 102 F Introduction to Literature or
ENGL 102HF Honors Introduction to Literature
And one survey sequence (6 units)
from the following:
ENGL 211 F
English Literature to 1800 and
ENGL 212 F English Literature since 1800 or
ENGL 221 F American Literature to the Civil War and
ENGL 222 F American Lit: the Civil War to the Present or
ENGL 224 F World Lit. through Early Modern Period and
ENGL 225 F World Lit. since the Early Modern Period
Units

And one course (3 units) from the following: Units
ENGL 203 F Intro to Dramatic Literature 3
ENGL 204 F Intro to Poetry 3
ENGL 207 F The Short Story 3
ENGL 246 F The Novel 3
ENGL 208 F Introduction to Film Studies 3
Restricted Electives:
6 additional units from any of the above courses or the following:

Units
ENGL 105 F Intro to Creative Writing 3
ENGL 209 F Intermediate Creative Writing 3
ENGL 210 F Introduction to Language Structure and Use 3
ENGL 214 F Contemporary Literature 3
ENGL 218 F California Writers 3
ENGL 234 F Introduction to Shakespeare or 3
ENGL 234HF Honors Introduction to Shakespeare 3
ENGL 239 F Survey of Children's Literature 3
ENGL 243 F Folklore and Mythology or 3
ENGL 243HF Honors Folklore and Mythology 3
ENGL 245 F The Bible as Literature 3
ENGL 248 F Science Fiction 3
ENGL 249 F Survey of Chicano/a Literature 3
ENGL 250 F Survey of African American Literature 3
ENGL 251 F Survey of Native American Literature 3
ENGL 252 F Women's Literature 3
ENGL 253 F Survey of Asian American Literature 3
ENGL 254 F Intermediate Creative Writing: Poetry 3
ENGL 255 F Intermediate Creative Writing: Fiction 3
SPAN 205 F Intro to Spanish Literature 3
SPAN 206 F Intro to Latin-American Literature 3
ENGL 280 F Language Arts Tutoring Practicum 3
Total Units:

## ENVIRONMENTAL SCIENCES

## Environmental Science <br> Associate in Arts Degree

The Environmental Science Associate in Arts Degree program requires a total of 18 units of which 8 units are in required courses. An additional 10 units may be chosen from the restricted electives listed below.

## Required Courses (8 units)

Units
BIOL 274 F General Ecology
4
ENVS 105 F Environmental Biology 3
ENVS 105LF Environmental Biology Lab
Restricted Electives (10) ..... Units
AJ 100 F Intro to Law Enforcement ..... 3
CHEM 111AF General Chemistry ..... 5
CHEM 111BF General Chemistry ..... 5
ECON 101 F Principles of Economics - Micro ..... 3
ESC 190 F Environmental Geology ..... 3
GEOG 102 F Physical Geography ..... 3
GEOG 170 F Urban Geography: Intro to the City or ..... 3
PSY 101 F General Psychology ..... 3
SOC 101 F Intro to Sociology ..... 3
SOC 102 F Social Problems ..... 3
Total Units: ..... 18

## ENVIRONMENTAL TECHNOLOGY

## Associate in Science Degree

The curriculum leads to an Associate in Science Degree for employment as an Environmental Hazardous Materials Technician. The knowledge and skills gained in this program allows a person to work with hazardous materials in compliance with governmental regulations and at the same time protect human health and the environment. This program currently does not fulfill requirements for transfer to any four-year university. The degree requires 32 units of which 18 units are in required courses. An additional 14 units must be chosen from the restricted electives listed below.

| Required Courses (18 units) | Units |  |
| :--- | :--- | ---: |
| ET 110 F | Waste Stream Gen./Reduction/Treatment | 3 |
| ET 130 F | Health Effects of Hazardous Materials | 3 |
| ET 150 F | Hazardous Waste Management Applications | 4 |
| ET 200 F | Hazardous Matls. Management Applications | 4 |
| ET 230 F | Safety and Emergency Response | 4 |

Restricted Electives (14 units) Units
BIOL 102 F Human Biology or 3
BIOL 170 F Organismal Biology 5
CHEM 101 F Intro to Chemistry or 5
CHEM 111AF General Chemistry or 5
CHEM 200 F Elementary Organic Chemistry 3
ET 100 F Intro to Environmental Technology 3
ENVS 105 F Environmental Biology 3
BUS 211 F Writing for Business or 3
CIS $100 \mathrm{~F} \quad$ Intro to Personal Computers or 3
SPCH 100 F Public Speaking $\quad 4$
Total Units: 32

## Environmental Technology (ET) Certificate Program

Curriculum leading to the Environmental Technology (ET) Certificate program refers to the knowledge and skills that allow a person to work with hazardous materials in compliance with governmental regulations and at the same time protect human health and the environment. The ET Certificate is designed to be a one-year program that can either prepare students or upgrade working individuals with technician-level skills. This certificate requires completion of 35 units of which 32 units are in required courses. An additional 3 units must be chosen from the restricted electives listed below. A minimum grade of " $C$ " is required in each course taken.

| Required Courses (32 units) | Units |  |
| :--- | :--- | ---: |
| BIOL 102 F | Human Biology | 3 |
| CHEM 101 F | Intro to Chemistry | 5 |
| ENVS 105 F | Environmental Biology | 3 |
| ET 100 F | Intro to Environmental Technology | 3 |
| ET 110 F | Waste Stream Gen./Reduction/Treatment | 3 |
| ET 130 F | Health Effects of Hazardous Materials | 3 |
| ET 150 F | Hazardous Waste Management Applications | 4 |
| ET 200 F | Hazardous Matls. Management Applications | 4 |
| ET 230 F | Safety and Emergency Response | 4 |

Restricted Electives (3 units)
Units
BUS 111 F Business Communications 3
CIS 100 F Intro to Personal Computers 3
SPCH 100 F Public Speaking 4

## Recommended Electives

Units
BUS 266 F Human Relations in Business 3
CHEM 200 F Elementary Organic Chemistry 3
ESC 100 F Physical Geology 3
POSC 100 F American Government 3
PSY 101 F General Psychology
Total Units:
35

## ETHNIC STUDIES

## Associate in Arts Degree

The Ethnic Studies AA Degree program requires a total of 19 units of which 16 units are in required courses. An additional 3 units must be chosen from the restricted units listed below.

## Required Courses (16 units)

Units
ETHS 101 F American Ethnic Studies
4
ETHS 129 F Introduction to African-American Studies
3
ETHS 140 F Introduction to Chicano/a Studies 3
ETHS 160 F History of the Native Americans
ETHS 170 F Introduction to Asian American Studies

Restricted Electives (3 units) Units
ENGL 249 F Survey of Chicano/a Literature 3
ENGL 250 F Survey of African American Literature 3
ENGL 251 F Survey of Native American Literature 3
ETHS 110 F Introduction to Multicultural Studies 3
ETHS 118 F Introduction to Bilingual-Crossculturism 3
ETHS 130 F African-American History I 3
ETHS 141 F Chicana/Chicano History 3
ETHS 142 F The Chicano-a/Latino-a in Contemp. Society 3
ETHS 171 F Asian-American History 3
HIST 160AF Asia: Basic Heritage or 3
HIST 160BF Modern China and Japan 3
HIST 162AF History of the Americas I or 3
HIST 162BF History of the Americas II 3
HIST 270 F Women in United States History 3
WMNS 100 F Introduction to Women's Studies 3
Total Units:

## Associate in Arts Degree, Chicano/Chicana Studies

The Chicano/Chicana Studies AA Degree program requires a total of 18 units of which 12 units are in required courses. An additional 6 units must be chosen from the restricted units listed below.

Required Courses (12 units)

Units

ETHS 140 F Introduction to Chicano/a Studies 3

ETHS 141 F Chicana/Chicano History 3

ETHS 142 F The Chicano-a/Latino-a in Contemp. Society 3

ENGL 249 F Survey of Chicano/a Literature 3

Restricted Electives (6 units) Units
ANTH 102 F Cultural Anthropology 3
ART 116 F Art History - Mexico 3
ETHS 101 F American Ethnic Studies 4
ETHS 118 F Introduction to Bilingual-Crossculturism 3
ETHS 129 F Introduction to African-American Studies 3
ETHS 130 F African-American History I 3
ETHS 160 F History of the Native Americans 3
ETHS 170 F Introduction to Asian American Studies 3
ETHS 171 F Asian-American History 3
HIST 162AF History of the Americas I or 3
HIST 162BF History of the Americas II 3
HIST 270 F Women in United States History 3
PSY 101 F General Psychology 3
SOC 101 F Introduction to Sociology
WMNS 100 F Introduction to Women's Studies
Total Units:

## FASHION

## Dressmaking-Alterations Certificate

The Dressmaking-Alterations Certificate program requires the completion of 36 units of which 27 are in required courses. An additional 9 units must be chosen from the restricted electives listed below.

| Required Courses (27 units) | Units |  |
| :--- | :--- | ---: |
| FASH 050 F | Careers in Fashion | 1 |
| FASH 085 F | Bridal and Special Occasion Wear | 2 |
| FASH 093 F | Pattern Alteration and Fitting | 2 |
| FASH 107 F | Apparel Analysis | 3 |
| FASH 108AF | Flat Pattern Methods and Design I | 2 |
| FASH 150 F | Intro to the Fashion Industry | 3 |
| FASH 152 F | Ready-to-Wear Evaluation | 3 |
| FASH 188 F | Apparel Production | 2 |
| FASH 201 F | Clothing II | 2 |
| FASH 205AF | Tailoring | 2 |
| FASH 206 F | Textiles | 3 |
| FASH 209AF | Draping | 2 |
|  |  | 2 |
| Restricted Electives (9 units) | 2 |  |
| FASH 060 F | Professional Image | 2 |
| FASH 101 F | Clothing I | 2 |
| FASH 108BF | Flat Pattern Methods and Design II | 1 |
| FASH 145 F | Field Studies in Fashion | 2 |
| FASH 186 F | Workroom Sketching | 3 |
| PSY 110 F | Intro to Applied Psychology | 36 |
| Total Units: |  |  |

Fashion Design Associate in Arts Degree
Curriculum leads to the Associate in Arts Degree. For employment in the apparel industry, either in clothing design for manufacturing or for custom work. The student should also complete the requirements for a Fashion Design Certificate. This program does not fulfill requirements for transfer to any four-year State university.

Complete 18 or more units from the following list:
FASH 108BF Flat Pattern Methods and Design II 2
FASH 150 F Intro to the Fashion Industry 3
FASH 186 F Workroom Sketching 2
FASH 201 F Clothing II 2
FASH 206 F Textiles 3
FASH 209AF Draping 2
FASH 242 F History of Costume 3
FASH 284AF Fashion Design 2
Total Units: 18

## Fashion Design Certificate

The Fashion Design Certificate program requires the completion of 36 units of which 32 are in required courses. An additional 4 units must be chosen from the restricted electives listed below: A minimum grade of " $C$ " is required for all courses.
Required Courses (32 units) ..... Units
FASH 050 F Careers in Fashion ..... 1
FASH 093 F Pattern Alteration and Fitting ..... 2
FASH 107 F Apparel Analysis ..... 3
FASH 108AF Flat Pattern Methods and Design I ..... 2
FASH 108BF Flat Pattern Methods and Design II ..... 2
FASH 145 F Field Studies in Fashion ..... 1
FASH 150 F Intro to the Fashion Industry ..... 3
FASH 186 F Workroom Sketching ..... 2
FASH 188 F Apparel Production ..... 2
FASH 190 F Pattern Grading ..... 1
FASH 201 F Clothing II ..... 2
FASH 206 F Textiles ..... 3
FASH 209AF Draping ..... 2
FASH 242 F History of Costume ..... 3
FASH 284AF Fashion Design ..... 2
FASH 297 F Fashion Design Portfolio ..... 1
Restricted Electives (4 units) ..... Units
ART 139 F Fashion Sketching ..... 2
ART 182 F Basic Drawing ..... 3
FASH 060 F Professional Image ..... 2
FASH 152 F Ready-to-Wear Evaluation ..... 3
FASH 183 F Fashion Marketing ..... 3
FASH 205AF Tailoring ..... 2
FASH 244 F Ethnic Costume ..... 2
FASH 284BF Fashion Design ..... 2
FASH 975 F Patternmaking: Collections ..... 2
FASH 299 F Fashion Industry Internship ..... $\frac{1-4}{36}$

Fashion Design majors may also be interested in Theatrical Costuming.

## Advanced Fashion Design Certificate

The Advanced Fashion Design Certificate program requires that the student complete the Fashion Design Certificate plus 24 units of which 22 are in required courses. An additional two units must be chosen from the restricted electives listed below. A minimum grade of " $C$ " is required for all courses.

## Required Courses (22 units)

ART 119 F Design and Color for Non-Art Majors 2
ART 120 F Basic Design
ART 139 F Fashion Sketching 2
ART 182 F Basic Drawing 3
FASH 975 F Patternmaking: Collections 2
FASH 088 F CAD for Apparel 2
FASH 186 F Workroom Sketching 2
FASH 209BF Draping 2
FASH 284BF Fashion Design 2
FASH 244 F Ethnic Costume
Restricted Electives (2 units)
ART 186AF Beginning Life Drawing 3
FASH 020 F Modeling 2
FASH 080AF Designing and Sewing Leather 2
FASH 088 F CAD for Apparel 2
FASH 205AF Tailoring 2
FASH 205BF Tailoring 2
Total Units:

## Fashion Illustration Certificate

The Fashion Illustration Certificate program requires the completion of 33 units of which 26 are from required courses. An additional 7 units must be chosen from the restricted electives listed below. A minimum grade of " $C$ " is required for all courses.

| Required Courses (26 units) | Units |  |
| :--- | :--- | ---: |
| ART 139 F | Fashion Sketching | 2 |
| ART 182 F | Basic Drawing | 3 |
| ART 183 F | Representational Drawing | 2 |
| ART 184 F | Expressive Drawing | 2 |
| ART 186AF | Beginning Life Drawing | 3 |
| ART 244 F | Illustration | 3 |
| FASH 107 F | Apparel Analysis | 3 |
| FASH 145 F | Field Studies in Fashion | 1 |
| FASH 150 F | Intro to the Fashion Industry | 3 |
| FASH 186 F | Workroom Sketching | 3 |
| FASH 242 F | History of Costume | 3 |
| FASH 297 F | Fashion Design Portfolio | 1 |
|  |  |  |
| Restricted Electives (7 units) | 2 |  |
| ART 144 F | Fundamentals of Cartooning | 3 |
| ART 186BF | Intermediate Life Drawing | 3 |
| ART 188 F | Watercolor Painting | 1 |
| FASH 050 F | Careers in Fashion | 2 |
| FASH 101 F | Clothing I | 2 |
| FASH 201 F | Clothing II | 4 |
| Total Units: |  | 4 |

## Fashion Journalism Associate in Arts Degree

Curriculum leads to the Fashion Journalism Associate in Arts Degree and/or employment in fashion journalism fields such as fashion magazines, trade magazines, promotion writing, radio and television program writer, advertising, and public relations. This degree requires completion of 18 units of which 15 units are in required courses. An additional 3 units must be chosen from the restricted electives listed below.

Required Courses (15 units) Units
JOUR 101 F Reporting and Writing 3
JOUR 135 F Magazine Production 3
FASH 150 F Intro to the Fashion Industry 3
FASH 183 F Fashion Marketing 3
FASH 250 F Fashion Promotion 3
Restricted Electives (3 units) Units
PHOT 100 F Basic Photography 3
PHOT 101 F Introduction to Photography 3
JOUR 102 F Advanced Reporting and Writing 3
JOUR 110 F Mass Media Survey 3
JOUR 210 F Multimedia Reporting 3
FASH 107 F Apparel Analysis 3
FASH 145 F Field Studies in Fashion 1
FASH 206 F Textiles 3
FASH 242 F History of Costume 3
Total Units: 18

## Fashion Merchandising Associate in Arts Degree

Curriculum leads to the Fashion Merchandising Associate in Arts Degree and/or employment in ready-to-wear industry, department store, specialty shops, and wholesale fashion showrooms. This degree requires completion of 18 units of which 15 units are in required courses. An additional 3 units must be chosen from the restricted electives listed below.
Required Courses (15 units)
BUS 266 F Human Relations in Business
CIS 100 F Intro to Personal Computers
CIS 111 F Intro to Information Systems
ECON 101 F Principles of Economics - Micro
FASH 183 F Fashion Marketing
FASH 202 F Visual Merchandising
FASH 242 F History of Costume
FASH 250 F Fashion Promotion
Total Units:

## Fashion Merchandising Certificate

The Fashion Merchandising Certificate requires the completion of 26 units of which 24 are in required courses. An additional 4 units must be chosen from the restricted electives listed below. A minimum grade of " $C$ " is required for all courses.

| Required Courses (30 units) | Units |  |
| :--- | :--- | ---: |
| CIS 111 F | Intro to Information Systems | 3 |
| FASH 107 F | Apparel Analysis | 3 |
| FASH 150 F | Intro to the Fashion Industry | 3 |
| FASH 152 F | Ready-to-Wear Evaluation | 3 |
| FASH 183 F | Fashion Marketing | 3 |
| FASH 206 F | Textiles | 3 |
| FASH 220 F | Retail Buying | 3 |
| FASH 250 F | Fashion Promotion | 3 |
|  |  |  |
| Restricted Electives (4 units) | 2 |  |
| FASH 060 F | Professional Image | 2 |
| FASH 101 F | Clothing I or | 2 |
| FASH 201 F | Clothing II | 1 |
| FASH 145 F | Field Studies in Fashion | 3 |
| FASH 242 F | History of Costume | 2 |
| FASH 244 F | Ethnic Costume | $\mathbf{1 - 4}$ |
| FASH 299 F | Fashion Industry Internship | $\mathbf{2 6}$ |
| Total Units: |  |  |

## Image Consultant Certificate

The Image Consultant Certificate program requires the completion of 20 units of which 19 units are in required courses. An additional 1 unit must be chosen from the restricted electives listed below. The curriculum leads to a certificate that prepares students for a career as a wardrobe and color consultant. The demand for professional image consultants is quickly growing, and the program will prepare students for entry-level employment with major retailers, image consulting firms, or selfemployment. A minimum grade of " C " is required for all courses.

Required Courses (19 units)
Units
FASH 060 F Professional Image 2
FASH 107 F Apparel Analysis 3
FASH 150 F Intro to the Fashion Industry 3
FASH 183 F Fashion Marketing 3
FASH 186 F Workroom Sketching 3
FASH 206 F Textiles 3
FASH 250 F Fashion Promotion 3
Restricted Electives (1 unit) Units
BUS 266 F Human Relations in Business 3
FASH 050 F Careers in Fashion 1
FASH 145 F Field Studies in Fashion 1
IDES 130 F Applied Color and Design Theory 4
Total Units: 29

## Patternmaker Certificate

The Patternmaker Certificate requires a total of 17 units of which 15 units are in required courses. An additional 2 units must be chosen from the restricted units listed below. A minimum grade of " $C$ " is required for all courses.

| Required Courses (15) units | Units |  |
| :--- | :--- | ---: |
| FASH 088 F | CAD for Apparel | 2 |
| FASH 101 F | Clothing I | 2 |
| FASH 108AF | Flat Pattern Methods and Design I | 2 |
| FASH 108BF | Flat Pattern Methods and Design II | 2 |
| FASH 188 F | Apparel Production | 2 |
| FASH 190 F | Pattern Grading | 1 |
| FASH 201 F | Clothing II | 2 |
| FASH 209AF | Draping | 2 |
|  |  |  |
| Restricted Electives (2 units) | 2 |  |
| FASH 201 F | Clothing II | 3 |
| FASH 206 F | Textiles | $\mathbf{1 7}$ |
| Total Units: |  | $\mathbf{1 7}$ |

## Product Development Apparel Certificate

The Product Development Apparel Certificate requires a total of 17 units of which 14 units are in required courses. An additional 3 units must be chosen from the restricted units listed below. The curriculum leads to a certificate that prepares students to work in the fashion design or merchandising fields developing apparel design and/or lines of apparel for specific target customers. The certificate can be completed in a single school year and the courses can be applied to the more advanced Fashion Merchandising Certificate or Associate in Arts degree.

| Required Courses: (14 units) | Units |  |
| :--- | :--- | ---: |
| FASH 107 F | Apparel Analysis | 3 |
| FASH 145 F | Field Studies in Fashion | 1 |
| FASH 186 F | Workroom Sketching | 2 |
| FASH 152 F | Ready-To-Wear Evaluation | 3 |
| FASH 284AF | Fashion Design | 2 |
| FASH 220 F | Retail and Fashion Buying | 3 |
|  |  |  |
| Restricted Electives: (3 units) | Units |  |
| FASH 150 F | Intro to the Fashion Industry | 3 |
| FASH 183 F | Fashion Marketing | 3 |
| FASH 284BF | Fashion Design - Advanced | $\underline{2}$ |
| Total Units: | $\mathbf{1 7}$ |  |

## Textiles and Clothing Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units chosen from the courses listed below.
Select 18 units from the following: ..... Units
FASH 101 F Clothing I ..... 2
FASH 107 F Apparel Analysis ..... 3
FASH 201 F Clothing II ..... 2
FASH 206 F Textiles ..... 3
IDES 215 F Interior Design Studio II ..... 2
IDES 130 F Applied Color and Design Theory ..... 4PHYS 130 F Elementary Physics4
Total Units:18

## FOODS AND NUTRITION

## Associate in Arts Degree

Curriculum leads to an Associate in Arts Degree and/or employment in the field of nutrition and foods. This program includes coursework that is applicable to a transfer program at selected universities and colleges in the field of dietetics, food and nutrition. This degree requires completion or 18 or more units of which 9 are in required courses. An additional 9 units must be chosen from the restricted electives listed below.

## Required Courses (9 units)

Units
FOOD 101AF Introduction to Foods
3
FOOD 101BF Introduction to Food Service Management 3
NUTR 210 F Human Nutrition
3

| Restricted Electives (9 units) | Units |  |
| :--- | :--- | ---: |
| ANAT 231 F | General Human Anatomy | 4 |
| ANAT 240 F | Human Physiology | 5 |
| CHEM 111AF | General Chemistry | 5 |
| CHEM 111BF | General Chemistry | 5 |
| CHEM 200 F | Elementary Organic Chemistry | 3 |
| CIS 100 F | Intro to Personal Computers | 3 |
| MATH 142 F | Trigonometry | 4 |
| MICR 262 F | General Microbiology | 5 |
| PHYS 130 F | Elementary Physics | 4 |
| Total Units: |  | $\mathbf{1 8}$ |

## FOREIGN LANGUAGE

## Humanities Division

Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: humanities.fullcoll.edu
Associate in Arts Degree

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units chosen from the courses listed below.


## GEOGRAPHY

## Associate in Arts Degree

The Geography Associate in Arts Degree program requires a total of 19 units of which 10 units are in required courses. An additional 9 units must be chosen from the restricted units listed below.

| Required Courses (10 units) | Units |  |
| :--- | :--- | ---: |
| GEOG 100 F | Global Geography | 3 |
| GEOG 102 F | Physical Geography | 3 |
| GEOG 102LF | Physical Geography Lab | 1 |
| GEOG 160 F | Cultural Geography | 3 |
|  |  | Units |
| Restricted Electives (9 units) | 3 |  |
| ANTH 101 F | Physical Anthropology | 3 |
| ANTH 102 F | Cultural Anthropology | 3 |
| ENVS 105 F | Environmental Biology | 3 |
| ESC 100 F | Physical Geology | 3 |
| GEOG 120 F | Global Environmental Problems | 2 |
| GEOG 131 F | Intro to Desktop GIS | 3 |
| GEOG 170 F | Urban Geography: Intro to the City | 3 |
| GEOG 241 F | Basic Crime Mapping | 3 |
| GEOG 242 F | Advanced Crime Mapping | 3 |
| GEOG 281AF | Intro to Geographic Information Systems | 3 |
| GEOG 281BF | Advanced GIS Applications | $1-5$ |
| GEOG 295 F | GIS Internship | 3 |
| HIST 113 F | World Civilizations II | 3 |
| HIST 160BF | Modern China and Japan | 3 |
| PHIL 105 F | World Religions | 3 |
| POSC 216 F | Government and Politics of the Middle East | 3 |
| POSC 230 F | Introduction to International Relations | 3 |
| SOC 102 F | Social Problems | 3 |
| Total Units: |  | 19 |

## GEOLOGY

## Natural Sciences Division

Office: Bldg 400
714.992.7105

Dean: Bruce Cordell
Website: natsci.fullcoll.edu

## Associate in Arts Degree

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units of which 8 are in required courses; an additional 10 units must be chosen from the restricted electives listed below.

| Required Courses (8 units) | Units |  |
| :--- | :--- | ---: |
| ESC 100 F | Physical Geology | 3 |
| ESC 100LF | Earth Science Survey Lab | 1 |
| ESC 103 F | Historical Geology | 4 |

Restricted Electives (10 units) ..... Units
BIOL 170 F Organismal Biology or ..... 5
BIOL 266 F General Zoology ..... 5
CHEM 111AF General Chemistry ..... 5
CHEM 111BF General Chemistry ..... 5
ENGR 101AF Surveying ..... 4
ESC 104 F Geology of National Parks and Monuments ..... 3
ESC 190 F Environmental Geology ..... 3
MATH 150AF Calculus I ..... 4
MATH 150BF Calculus II ..... 4
MATH 250AF Intermediate Calculus ..... 4
MATH 250BF Linear Algebra and Differential Equations ..... 4
PHYS 205 F Physics for the Life Sciences I ..... 4
PHYS 206 F Physics for the Life Sciences II or ..... 4
PHYS 221 F General Physics I ..... 4
PHYS 222 F General Physics II ..... 4
PHYS 223 F General Physics III ..... 4
Total Units: ..... 18

## HISTORY

## Associate in Arts Degree

The History Associate in Arts Degree program requires a total of 18 units of which 6 units are in required courses. An additional 12 units must be chosen from the restricted units listed below.
Required Courses: (6 units) Units
HIST 110 F Western Civilization I and ..... 3
HIST 111 F Western Civilization II or ..... 3
HIST 110HF Honors Western Civilization I and ..... 3
HIST 111HF Honors Western Civilization II or ..... 3
HIST 110 F Western Civilization I and ..... 3
HIST 111HF Honors Western Civilization II or ..... 3
HIST 110HF Honors Western Civilization I and ..... 3
HIST 111 F Western Civilization II or ..... 3
HIST 112 F World Civilizations I and ..... 3
HIST 113 F World Civilizations II or ..... 3
HIST 112HF Honors World Civilizations I and ..... 3
HIST 113HF Honors World Civilizations II or ..... 3
HIST 112 F World Civilizations I and ..... 3
HIST 113HF Honors World Civilizations II or ..... 3
HIST 112HF Honors World Civilizations I and ..... 3
HIST 113 F World Civilizations II or ..... 3
HIST 160AF Asia: Basic Heritage and ..... 3
HIST 160BF Modern China and Japan or ..... 3
HIST 162AF History of the Americas I and ..... 3
HIST 162BF History of the Americas II or ..... 3
HIST 170 F History of the United States I and ..... 3
HIST 171 F History of the United States II or ..... 3
HIST 170HF Honors History of the United States I and ..... 3

| Restricted Electives (3 units) | Units |  |
| :--- | :--- | ---: |
| HIST 151 F | Survey of British History I | 3 |
| HIST 152 F | Survey of British History II | 3 |
| HIST 154 F | Ancient Egypt | 3 |
| HIST 165 F | Introduction to the Middle East | 3 |
| HIST 270 F | Women in United States History | 3 |
| HIST 275 F | History of California and the Pacific Coast | 3 |
|  |  | Units |
| Restricted Electives (9 units) | 3 |  |
| ANTH 101 F | Physical Anthropology | 3 |
| ANTH 102 F | Cultural Anthropology | 3 |
| ECON 101 F | Principles of Economics — Micro | 3 |
| ECON 102 F | Principles of Economics - Macro | 3 |
| ETHS 101 F | American Ethnic Studies | 3 |
| ETHS 130 F | African-American History I | 3 |
| ETHS 141 F | Chicana/Chicano History | 3 |
| ETHS 160 F | History of the Native Americans | 3 |
| GEOG 100 F | Global Geography | 3 |
| GEOG 160 F | Cultural Geography | 3 |
| PHIL 100 F | Introduction to Philosophy | 3 |
| PHIL 105 F | World Religions | 3 |
| PHIL 160 F | Introduction to Ethics | 3 |
| PHIL 165 F | Business and Professional Ethics | 3 |
| PHIL 170 F | Logic and Critical Thinking | 3 |
| POSC 100 F | American Government | 3 |
| POSC 215 F | Comparative Politics | 3 |
| POSC 230 F | Introduction to International Relations | 3 |
| PSY 101 F | General Psychology | 3 |
| SOC 101 F | Introduction to Sociology | 3 |
| Total Units: |  | $\mathbf{1 8}$ |

## HORTICULTURE

## Greenhouse \& Nursery Production

## Certificate

The Greenhouse \& Nursery Production Certificate program requires 30 units of which 12 units are in required courses. An additional 9 units must be chosen from restricted electives group A and at least 9 units from restricted electives group A or B.
Required Courses (12 units) ..... Units
HORT 160 F Plant Identification (Ornamental Trees) ..... 3
HORT 161 F Plant Identification (Ornamental Shrubs) ..... 3
HORT 164 F Plant Ident. (Annuals/Perennials/House) ..... 3
HORT 173 F Greenhouse and Nursery Production ..... 3
Restricted Electives - Group A (9 units) ..... Units
HORT 155 F Soils
HORT 156 F Plant Nutrition ..... 33
HORT 174 F Plant Propagation
HORT 205 F Applied Entomology

HORT 205 F Applied Entomology 3

| Restricted Electives - Group B (9 units) | Units |  |
| :--- | :--- | ---: |
| HORT 152 F | Applied Botany | 4 |
| HORT 162 F | Landscaping for Dry Climates | 3 |
| HORT 177 F | Turfgrass Management | 3 |
| HORT 200 F | Landscape Design | 3 |
| HORT 207 F | Plant Pathology | 3 |
| Total Units: | $\mathbf{4 0}$ |  |

## Landscape Management Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in parks, golf courses, landscape contracting, and landscape gardening.

Complete 18 or more units from the following list: Units
HORT 001 F Principles of Horticulture I 4
HORT 002 F Principles of Horticulture II 4
HORT 005 F Basic Landscape Plants I 3
HORT 006 F Basic Landscape Plants II 3
HORT 152 F Applied Botany 4
BIOL 268 F General Botany 5
HORT 153 F Landscape Irrigation 3
HORT 155 F Soils 3
HORT 156 F Plant Nutrition 3
HORT 160 F Plant Identification (Ornamental Trees) 3
HORT 161 F Plant Identification (Ornamental Shrubs) 3
HORT 162 F Landscaping for Dry Climates 3
HORT 165 F Landscape Management 4
HORT 168 F Landscape Construction 3
HORT 177 F Turf Grass Management 3
HORT 200 F Landscape Design 3
HORT 215 F Diseases/Pests of Ornamental Plants 4
Total Units:

## Landscape Design/Management Certificate

The Landscape Design/Management Certificate program requires completion of 30 units of which 16 units are in required courses. An additional 7 units must be chosen from restricted electives group A, and at least 7 units from restricted electives group B.

[^2]| Restricted Electives - Group A (7 units) | Units |  |
| :--- | :--- | ---: |
| HORT 155 F | Soils | 3 |
| HORT 156 F | Plant Nutrition | 3 |
| HORT 168 F | Landscape Construction | 3 |
| HORT 169LF | Landscape Construction Lab | 1 |
| HORT 170 F | Landscaping Contracting | 3 |
| HORT 201 F | Advanced Landscape Design | 3 |
| HORT 215 F | Diseases/Pests of Ornamental Plants | 4 |
|  |  |  |
| Restricted Electives - Group B (7 units) | Units |  |
| HORT 162 F | Landscaping for Dry Climates | 4 |
| HORT 164 F | Plant Ident. (Annuals/Perennials/House) | 3 |
| HORT 185 F | Arboriculture | 2 |
| HORT 205 F | Applied Entomology | 3 |
| HORT 207 F | Plant Pathology | 4 |
| Total Units: |  | $\mathbf{3 0}$ |

## Landscape Horticulture Certificate

The Landscape Horticulture Certificate of Completion program is intended for students who desire an intermediate certification in horticulture. This certificate can be completed within a single school year. Courses used here can be applied toward the more advanced Certificates of Proficiency in Horticulture. The Landscape Horticulture Certificate of Completion program requires a total of 18 units of which 7 units are in required courses. An additional 11 units must be chosen from the restricted units listed below.
Required Courses (7 units) ..... Units
HORT 001 F Principles of Horticulture I or ..... 4
HORT 002 F Principles of Horticulture II ..... 4
HORT 160 F Plant Identication (Ornamental Trees) or ..... 3
HORT 161 F Plant Ident. (Ornamental Shrubs) or ..... 3
HORT 162 F Landscaping for Dry Climates or ..... 3
HORT 164 F Plant Ident. (Annuals/Perennials/House) or ..... 3
HORT 005 F Basic Landscape Plants I or ..... 3
HORT 006 F Basic Landscape Plants II ..... 3
Restricted Electives (11 units) ..... Units
HORT 008AF Landscape Pruning Techniques ..... 1
HORT 008BF Basic Turf Care ..... 1
HORT 008CF Home Pest Control ..... 1
HORT 058 F Irrigation Controller Program ..... 2
HORT 153 F Landscape Irrigation ..... 3
HORT 155 F Soils ..... 3
HORT 156 F Plant Nutrition ..... 3
HORT 157 F Irrigation Principles ..... 3
HORT 165 F Landscape Management ..... 3
HORT 168 F Landscape Construction ..... 3
HORT 169LF Landscape Construction Lab ..... 1
HORT 170 F Landscaping Contracting ..... 3
HORT 173 F Greenhouse and Nursery Production ..... 3
HORT 174 F Plant Propagation ..... 3
HORT 177 F Turf Grass Management ..... 3
HORT 185 F Arboriculture ..... 2
HORT 200 F Landscape Design ..... 3
Total Units: ..... 18

## Landscape Irrigation Certificate

The Landscape Irrigation Certificate program requires a total of 31 units of which 19 units are in required courses. An additional 12 units must be chosen from the restricted units listed below, 6 units from Category A, and 6 units from Category B.

| Required Courses (19 units) | Units |  |
| :--- | :--- | ---: |
| HORT 153 F | Landscape Irrigation | 3 |
| HORT 154 F | Irrigation Design | 3 |
| HORT 155 F | Soils | 3 |
| HORT 157 F | Irrigation Principles | 3 |
| HORT 162 F | Landscaping for Dry Climates | 4 |
| HORT 218 F | Landscape Hydraulics | 3 |
|  |  | Units |
| Restricted Electives - group A (6 units) | 3 |  |
| ACG 100 F | Intro: Computer Graphics/MAC | 3 |
| ARCH 113 F | Architectural Drawing I | 2 |
| CSTR 006 F | Residential Plumbing/Mech. Systems | 3 |
| HORT 177 F | Turf Grass Management | 4 |
| HORT 200 F | Landscape Design | 3 |
| HORT 219 F | CAD Applications in Horticulture |  |
|  |  | $4 n i t s$ |
| Restricted Electives - group B (6 units) | 4 |  |
| HORT 165 F | Landscape Management | 1 |
| HORT 169LF | Landscape Construction Lab | 3 |
| HORT 170 F | Landscaping Contracting | 4 |
| HORT 201 F | Advanced Landscape Design | 31 |
| Total Units: |  |  |

## Nursery Management Associate in Arts Degree

Curriculum leads to a Nursery Management Associate in Arts Degree and entry-level positions in retail and wholesale nurseries, parks departments, and landscape contracting.

| Complete 18 units from the following list: | Units |  |
| :--- | :--- | ---: |
| HORT 001 F | Principles of Horticulture I | 4 |
| HORT 002 F | Principles of Horticulture II | 4 |
| HORT 152 F | Applied Botany | 4 |
| HORT 153 F | Landscape Irrigation | 3 |
| HORT 155 F | Soils | 3 |
| HORT 156 F | Plant Nutrition | 3 |
| HORT 160 F | Plant Identification (Ornamental Trees) | 3 |
| HORT 161 F | Plant Identification (Ornamental Shrubs) | 3 |
| HORT 162 F | Landscaping for Dry Climates | 3 |
| HORT 164 F | Plant Ident. (Annuals/Perennials/House) | 3 |
| HORT 173 F | Greenhouse and Nursery Production | 3 |
| HORT 174 F | Plant Propagation | 3 |
| HORT 200 F | Landscape Design | 3 |
| HORT 215 F | Diseases and Pests of Ornamental Plants | 4 |
| Total Units: |  | $\mathbf{1 8}$ |

## Ornamental Horticulture Associate in Science Degree

Curriculum leads to the Ornamental Horticulture Associate in Science Degree. This degree requires completion of 21 units of which 9 units are in required courses. An additional 12 units must be chosen from the restricted electives listed below.

## Required Courses (9 units)

Units
HORT 153 F Landscape Irrigation or 3
HORT 157 F Irrigation Principles 3
HORT 155 F Soils 3
HORT 160 F Plant Identification (Ornamental Trees) or 3
HORT 161 F Plant Identification (Ornamental Shrubs) or 3
HORT 162 F Landscaping for Dry Climates or 3
HORT 164 F Plant Ident. (Annuals/Perennials/House) 3

## Restricted Electives (12 units)

Units
HORT 156 F Plant Nutrition
3
HORT 165 F Landscape Management 4
HORT 173 F Greenhouse and Nursery Production 3
HORT 174 F Plant Propagation 3
HORT 177 F Turfgrass Management 3
HORT 200 F Landscape Design 3
HORT 201 F Advanced Landscape Design
HORT 219 F CAD Application in Horticulture
Total Units:

## Ornamental Horticulture Certificate

The Ornamental Horticulture Certificate program requires 30 units of which 9 units are in required courses. An additional 12 units must be chosen from restricted electives group A, and at least 9 units from restricted electives group A or B.

| Required Courses (9 units) | Units |  |
| :--- | :--- | ---: |
| HORT 005 F | Basic Landscape Plants | 3 |
| HORT 006 F | Basic Landscape Plants or | 3 |
| HORT 160 F | Plant Identification (Ornamental Trees) | 3 |
| HORT 161 F | Plant Ident. (Ornamental Shrubs) and | 3 |
| HORT 155 F | Soils | 3 |
|  |  |  |
| Restricted Electives - Group A (12 units) | 4 |  |
| HORT 001 F | Principles of Horticulture I | 4 |
| HORT 002 F | Principles of Horticulture II | 4 |
| HORT 152 F | Applied Botany | 3 |
| HORT 153 F | Landscape Irrigation | 3 |
| HORT 156 F | Plant Nutrition | 3 |
| HORT 164 F | Plant Ident. (Annuals/Perennials/House) | 3 |
| HORT 173 F | Greenhouse and Nursery Production | 3 |
| HORT 174 F | Plant Propagation | 3 |
| HORT 177 F | Turfgrass Management | 3 |
| HORT 200 F | Landscape Design | 3 |
| HORT 205 F | Applied Entomology | 3 |
| HORT 207 F | Plant Pathology | 4 |
| HORT 215 F | Diseases and Pests of Ornamental Plants | 4 |

Restricted Electives - Group B (9 units) Units
HORT 008AF Landscape Pruning Practices ..... 1
HORT 008BF Basic Turf Care ..... 1
HORT 008CF Home Pest Control ..... 1
HORT 045 F Training Pest Control Professionals ..... 3
HORT 162 F Landscaping for Dry Climates ..... 3
HORT 165 F Landscape Management ..... 4
HORT 168 F Landscape Construction ..... 3
HORT 170 F Landscape Contracting ..... 3
HORT 185 F Arboriculture ..... 2
HORT 201 F Advanced Landscape Design ..... 3
Total Units:30

## Pest Management Certificate

The Pest Management Certificate program prepares students for licensing and employment as pest control applicators and advisors. The Pest Management Certificate program requires a total of 30 units of which 10 are in required courses. An additional 8 units must be chosen from restricted units from restricted electives group A, and at least 12 units from restricted electives group A or B.

| Required Courses (10 units) | Units |  |
| :--- | :--- | ---: |
| HORT 045 F | Training Pest Control Professionals | 3 |
| HORT 188 F | Integrated Pest Management | 2 |
| HORT 205 F | Applied Entomology | 3 |
| HORT 207 F | Plant Pathology | 3 |
|  |  | Units |
| Restricted Electives — Group A | 4 |  |
| HORT 001 F | Principles of Horticulture I | 4 |
| HORT 002 F | Principles of Horticulture II | 3 |
| HORT 005 F | Basic Landscape Plants I | 3 |
| HORT 006 F | Basic Landscape Plants II | 2 |
| HORT 046 F | Pest Safety for Landscape Workers | 4 |
| HORT 152 F | Applied Botany | 2 |
| HORT 156 F | Plant Nutrition | 3 |
| HORT 160 F | Plant Identification (Ornamental Trees) | 3 |
| HORT 161 F | Plant Identification (Ornamental Shrubs) | 3 |
| HORT 215 F | Diseases and Pests of Ornamental Plants | 4 |

Restricted Electives - Group B Units
HORT 155 F Soils
HORT 165 F Landscape Management 4
HORT 177 F Turf Grass Management 3
HORT 185 F Arboriculture 2
HORT 200 F Landscape Design
Total Units:

## INDUSTRIAL ARTS

Technology and Engineering Division
Office: Bldg 700
714.992.7211

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units chosen from the courses listed below.

| Select 18 units from the following: | Units |  |
| :--- | :--- | ---: |
| AUTO 131 F | Automotive Fundamentals | 4 |
| DRAF 171 F | Fundamentals of Drafting | 2 |
| MACH 116 F | Machine Tools | 2 |
| PHOT 101 F | Intro to Photography | 3 |
| PRNT 130 F | Graphics | 2 |
| TECH 127 F | Industrial Safety | 1 |
| WELD 121AF | Intro to Welding | 2 |
| WOOD 110 F | Fundamentals of Woodwork | 3 |
| Total Units: | $\mathbf{1 8}$ |  |

## Industrial Laboratory Technician (Chemistry) Associate in Arts Degree

Curriculum leads to an Industrial Laboratory Technician Associate in Arts Degree for employment in the research and product-testing departments of petroleum companies, soil laboratories, food processing plants, chemical plants, etc. It is not intended to fulfill requirements to transfer for a Bachelor's Degree in Chemistry.

High School Preparation: Three years of college-preparatory mathematics, chemistry, further mathematics, biology, and physics recommended.

This degree requires completion of 18 units of which 10 units are in required courses. An additional 8 units must be chosen from the restricted electives listed below.

## INDUSTRIAL TECHNOLOGY

Technology and Engineering Division
Office: Bldg 700
714.992.7211

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units from the courses listed below.

| Required Courses (18) | Units |
| :--- | ---: |
| MATH 150AF | Calculus I |
| PHYS 205 F | Physics for the Life Sciences I |
| PHYS 206 F | Physics for the Life Sciences II or |
| PHYS 221 F | General Physics I |
| PHYS 222 F | General Physics II |
| PHYS 223 F | General Physics III |
| CHEM 107 F | Elementary Chemistry or |
| CHEM 111AF | General Chemistry |
| CHEM 111BF | General Chemistry |
| Total Units: | 4 |

For specialized technical courses in construction, electronics or manufacturing, see your counselor.

## INTERDISCIPLINARY STUDIES

## Associate in Arts Degree

Interdisciplinary Studies with an Emphasis in Science and Mathematics: These courses emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on human experience. This emphasis includes lower-division coursework that prepares students for majors in science, math, and health related fields.

## Interdisciplinary Studies cont'd.

Choose at least one course from each category ( $A$ and $B$ ) and then complete additional courses in categories $A$ and/or B to total 18 units:
A) Sciences Units

ANAT 231 F
ANAT 240 F Human Physiology
ANTH 101 F Physical Anthropology or
ANTH 101HF Honors Physical Anthropology
ANTH 101LF Physical Anthropology Lab
BIOL 100 F Principles of Biology
BIOL 101 F General Biology or
BIOL 101HF Honors General Biology
BIOL 102 F Human Biology
BIOL 102LF Human Biology Laboratory
BIOL 104 F Biology of Insects and Spiders
BIOL 108 F Plants and People
BIOL 109 F Genetics and Biotechnology in Society
BIOL 141 F Marine Mammal Biology and Conservation
BIOL 170 F Organismal Biology
BIOL 222 F Marine Biology
BIOL 266 F General Zoology
BIOL 268 F General Botany
BIOL 272 F Cell and Molecular Biology
BIOL 274 F General Ecology
CHEM 100 F Chemistry for Daily Life
CHEM 101 F Introduction to Chemistry
CHEM 103 F Chemistry in a Changing World
CHEM 107 F Elementary Chemistry
CHEM 111AF General Chemistry
CHEM 111BF General Chemistry
ESC 100 F Physical Geology
ESC 100LF Physical Geology Lab
ESC 101 F Earth Science Survey
ESC 101LF Earth Science Survey Lab
ESC 103 F Historical Geology
ESC 104 F Geology of National Parks/Monuments
ESC 105 F Elements of Meteorology
ESC 106 F Geology of the Orange County Area
ESC 116 F Astronomy
ESC 116LF Astronomy Lab
ESC 120 F Geology of California
ESC 130 F Introduction to Oceanography or
ESC 130HF Honors Intro to Oceanography
ESC 130LF Intro to Oceanography Field Experience
ESC 190 F Environmental Geology
ENVS 105 F Environmental Biology
ENVS 105LF Environmental Biology Lab
ENVS 126 F Natural History of California
GEOG 102 F Physical Geography
GEOG 102LF Physical Geography Lab
HED 140 F Health Science
HORT 152 F Applied Botany
HORT 205 F Applied Entomology
HORT 207 F Plant Pathology
MICR 220 F Medical Microbiology
MICR 262 F General Microbiology
NUTR 210 F Human Nutrition

| PHSC 102 F | Physical Science Survey | 4 |
| :--- | :--- | :--- |
| PHSC 103AF | Physical Sciences for Teachers: Physics | 2 |
| PHSC 103BF | Physical Sciences for Teachers: Chemistry | 2 |
| PHYS 130 F | Conceptual Physics | 4 |
| PHYS 205 F | Physics for the Life Sciences I | 4 |
| PHYS 206 F | Physics for the Life Sciences II | 4 |
| PHYS 210 F | Physics with Calculus for the Life Sciences I | 4 |
| PHYS 211 F | Physics with Calculus for the Life Sciences II | 4 |
| PHYS 221 F | General Physics I | 4 |
| PHYS 222 F | General Physics II | 4 |
| PHYS 223 F | General Physics III | 4 |

Choose at least one course from each category ( $A$ and $B$ ) and then complete additional courses in categories $A$ and/or B to total 18 units:
B) Mathematics ..... Units
BUS 151 F Business Mathematics ..... 3
MATH 100 F Liberal Arts Mathematics ..... 3
MATH 120 F Introductory Probability and Statistics or ..... 4
MATH 120HF Honors Introductory Probability and Statistics ..... 4
MATH 129 F College Algebra for Business Calculus ..... 4
MATH 130 F Calculus for Business ..... 4
MATH 141 F College Algebra ..... 4
MATH 142 F Trigonometry ..... 4
MATH 150AF Calculus I ..... 4
MATH 150BF Calculus II ..... 4
MATH 171 F Discrete Mathematics ..... 4
MATH 172 F Graph Theory and Linear Algebra ..... 4
MATH 250AF Multivariable Calculus ..... 4
MATH 250BF Linear Algebra and Differential Equations ..... 4
PSY 161 F Elementary Statistics Behavioral Science ..... 3
SOSC 120 F Intro to Probability and Statistics I ..... 4
SOSC 121 F Intro to Probability and Statistics II ..... 418

## Interdisciplinary Studies with an Emphasis in Arts and

 Human Expression:These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments. This emphasis includes lower division coursework that prepares students for majors in fine arts, foreign languages, literature, and philosophy.

## Interdisciplinary Studies cont'd.

## Choose 18 units of coursework, including two or more disciplines, from the following list:

## Restricted Electives Units

ART 110 F Introduction to Art
3
ART 112 F Art History Ancient/Medieval 3
ART 113 F Art History Renaissance to Modern 3
ART 114 F Art History Impressionism to the Present 3
ART 115 F Museum Survey
ART 116 F Art History - Mexico
ART 117 F History of American Art
ART 118 F Color Theory
ART 119 F Design and Color for Non-Art Majors
ART 120 F Basic Design
ART 121 F Three-Dimensional Design
ART 127 F Painting Concepts - Floral
ART 150AF Ceramics: Beginning Handbuilding
ART 150BF Ceramics: Beginning Throwing
ART 160 F Fundamentals of Sculpture
ART 174AF Jewelry: Fabrication I
ART 179 F Jewelry: Fabrication II
ART 182 F Basic Drawing
ART 184 F Expressive Drawing
ART 186AF Beginning Life Drawing
ART 187 F Watercolor for Non-Art Majors
ART 188 F Watercolor Painting
ART 189AF Beginning Painting
ART 196HF Honors Creative Arts - Art
ART 210 F
ART 212 F Asian Art History
ART 213 F Pre-Columbian Art
CDES 242 F Introduction to Liberal Studies
CRTV 120 F Media Aesthetics
CRTV 121 F The American Cinema
CRTV 126AF World Cinema to 1945
CRTV 126BF World Cinema 1946 to Present
CRTV 131 F Contemporary Cinema
DANC 100 F Intro to Dance
DANC 101 F Introduction to Dance World Culture
DANC 103 F Dance Technique I
DANC 105 F Ballet I
DANC 107 F Modern Dance I
DANC 111 F Jazz I
DANC 120 F Dance History
DANC 210 F Multicultural Dance in the U.S.
ENGL 102 F Introduction to Literature or
ENGL 102HF Honors Intro to Literature
ENGL 105 F Intro to Creative Writing
ENGL 203 F Intro to Dramatic Literature
ENGL 204 F
ENGL 205 F
ENGL 206 F
ENGL 207 F
ENGL 210 F
ENGL 211 F
ENGL 212 F
ENGL 214 F

ENGL 218 F
ENGL 221 F American Literature to the Civil War 3
ENGL 222 F American Literature/Civil War to Present 3
ENGL 224 F World Literature I 3
ENGL 225 F World Literature II 3
ENGL 234 F Intro to Shakespeare or 3
ENGL 234HF Honors Intro to Shakespeare 3
ENGL 239 F Survey of Children's Literature 3
ENGL 243 F Folklore and Mythology or 3
ENGL 243HF Honors Folklore and Mythology 3
ENGL 245 F The Bible as Literature 3
ENGL 246 F The Novel 3
ENGL 247 F Voices of America: Multicultural Literature 3
ENGL 248 F Science Fiction 3
ENGL 249 F Survey of Chicano/a Literature 3
ENGL 250 F Survey of African American Literature 3
ENGL 251 F Survey of Native American Literature 3
ENGL 252 F Women's Literature 3
ENGL 253 F Survey of Asian American Literature 3
ENGL 255 F Intermediate Creative Writing: Fiction 3
ETHS 130 F African-American History I 3
FASH 242 F History of Costume 3
FASH 244 F Ethnic Costume 2
F-LANG 101 F, or 101 HF , 102 F or 102HF, $201 \mathrm{~F}, 203$ F, 204 F, 205 F, 206 F, 207 F
HIST 110 F Western Civilization I or 3
HIST 110HF Honors Western Civilization I 3
HIST 111 F Western Civilization II or 3
HIST 111HF Honors Western Civilization II 3
HIST 112 F World Civilizations I or 3
HIST 112HF Honors World Civilizations I 3
HIST 113 F World Civilizations II or 3
HIST 113HF Honors World Civilizations II 3
HIST 154 F Ancient Egypt 3
HIST 170 F History of the United States I or 3
HIST 170HF Honors History of the United States I 3
HIST 171 F History of the United States II or 3
HIST 171HF Honors History of the United States II 3
HIST 270 F Women in United States History 3
IDES 180 F History of Interior Architecture I 3
MUS 101 F Music Fundamentals 3
MUS 102 F Music Reading 3
MUS 104AF Beginning Musicianship 1
MUS 106 F Intro to Music Theory 3
MUS 107AF Harmony I 3
MUS 110 F Electronic Music I 3
MUS 113 F Jazz History - An Appreciation 3
MUS 114 F Women, Music and Society 3
MUS 116 F Music Appreciation 3
MUS 117 F American Popular Music/Jazz Music Survey 3
MUS 118 F Intro to Opera 3
MUS $119 \mathrm{~F} \quad$ History of Rock Music 3
MUS 120 F Survey of Music History 3
MUS 123 F Concert Hour . 5
MUS 135AF Beginning Piano 1
MUS $180 \mathrm{~F} \quad$ Collegiate Chorale 1
MUS 196HF Honors Creative Arts — Music 3
MUS 271 F Fullerton Symphony 1
MUS 273 F Concert Band 1

## Interdisciplinary Studies cont'd.

MUS 274 F Fullerton College Symphonic Winds
MUS 281 F Concert Choir
MUS 282 F Fullerton Master Chorale
PHIL 100 F Introduction to Philosophy or
PHIL 100HF Honors Introduction to Philosophy
PHIL 101 F Introduction to Religion
PHIL 105 F World Religions or
PHIL 105HF
PHIL 135 F
PHIL 160 F
PHIL 195 F
PHIL 200 F
PHIL 201 F
PHIL 202 F
PHIL 210 F
PHIL 250 F

PHOT 100 F
PHOT 101 F
SPCH 100 F
SPCH 105 F
SPCH 124 F
SPCH 135 F
THEA 100 F
THEA 104 F
THEA 105 F
THEA 109 F
THEA 127 F
THEA 150 F
THEA 160 F
THEA 161 F
THEA 162 F
THEA 196HF
WOOD 110 F

PHIL 270 F Introduction to Asian Religions
Honors World Religions
Social and Political Philosophy
Introduction to Ethics
Women's Issues in Philosophy
Introduction to Christianity
History of Philosophy: Ancient and Medieval
History of Philosophy: Modern \& Contemp.
Introduction to Judaism
The Religion of Islam
Basic Photography
Introduction to Photography
Public Speaking
Interpersonal Communication
Small Group Communication
Essentials of Argumentation
Intro to the Theatre
Intro to Theatre Appreciation
Musical Theatre History
Modern Dramatic Literature
Oral Interpretation
Performance Laboratory
Introduction to Sound Technology
Sound Reinforcement Techniques
Sound Design for the Theatre
Honors Creative Arts - Theater
Fundamentals of Woodwork

Choose 18 units of coursework, including two or more disciplines, from the following list:

| Restricted Electives U |  | Units |
| :---: | :---: | :---: |
| ANTH 101 F | Physical Anthropology or | 3 |
| ANTH 101HF | Honors Physical Anthropology | 3 |
| ANTH 101LF | Physical Anthropology Lab | 1 |
| ANTH 102 F | Cultural Anthropology or | 3 |
| ANTH 102HF | Honors Cultural Anthropology | 3 |
| ANTH 103 F | Intro to Archaeology | 3 |
| ANTH 105 F | Language and Culture | 3 |
| ANTH 107 F | Anthropology/Magic, Witchcraft and Religion | - 3 |
| ANTH 209 F | Cultures of Latin America | 3 |
| BUS 242 F | International Business Law | 3 |
| CDES 120 F | Child Development | 3 |
| COUN 151 F | Career/Life Planning | 3 |
| COUN 163 F | Personal Growth and Life Transitions | 3 |
| ECON 101 F | Principles of Economics - Micro or | 3 |
| ECON 101HF | Honors Principles of Economics - Micro | 3 |
| ECON 102 F | Principles of Economics - Macro or | 3 |
| ECON 102HF | Honors Principles of Economics - Macro | 3 |
| ETHS 101 F | American Ethnic Studies | 4 |
| ETHS 129 F | Introduction to African-American Studies | 3 |
| ETHS 130 F | African-American History I | 3 |
| ETHS 131 F | African-American History II | 3 |
| ETHS 140 F | Introduction to Chicano/a Studies | 3 |
| ETHS 141 F | Chicana/Chicano History | 3 |
| ETHS 142 F | The Chicano-a/Latino-a in Contemp. Society | y 3 |
| ETHS 160 F | History of the Native Americans | 3 |
| ETHS 170 F | Introduction to Asian American Studies | 3 |
| ETHS 171 F | Asian-American History | 3 |
| GEOG 100 F | Global Geography or | 3 |
| GEOG 100HF | Honors Global Geography | 3 |
| GEOG 120 F | Global Environmental Problems | 3 |
| GEOG 160 F | Cultural Geography | 3 |
| HIST 110 F | Western Civilization I or | 3 |
| HIST 110HF | Honors Western Civilization I | 3 |
| HIST 111 F | Western Civilization II or | 3 |
| HIST 111HF | Honors Western Civilization II | 3 |
| HIST 112 F | World Civilizations I or | 3 |
| HIST 112HF | Honors World Civilizations I | 3 |
| HIST 113 F | World Civilizations II or | 3 |
| HIST 113HF | Honors World Civilizations II | 3 |
| HIST 127 F | Survey of American History | 3 |
| HIST 151 F | Survey of British History I | 3 |
| HIST 152 F | Survey of British History II | 3 |
| HIST 154 F | Ancient Egypt | 3 |
| HIST 160AF | Asia: Basic Heritage | 3 |
| HIST 160BF | Modern China and Japan | 3 |
| HIST 162AF | History of the Americas I | 3 |
| HIST 162BF | History of the Americas II | 3 |
| HIST 165 F | Introduction to the Middle East | 3 |
| HIST 170 F | History of the United States I or | 3 |
| HIST 170HF | Honors History of the United States I | 3 |
| HIST 171 F | History of the United States II or | 3 |
| HIST 171HF | Honors History of the United States II | 3 |
| HIST 270 F | Women in United States History | 3 |

ANTH 101 F Physical Anthropology or 3
ANTH 101HF Honors Physical Anthropology 3
ANTH 101LF Physical Anthropology Lab 1
ANTH 102 F Cultural Anthropology or 3
ANTH 102HF Honors Cultural Anthropology 3
ANTH 103 F Intro to Archaeology 3
ANTH 105 F Language and Culture 3
ANTH 107 F Anthropology/Magic, Witchcraft and Religion 3
209 F Cultures of Lain America

CDES 120 F Child Development 3
COUN 151 F Career/Life Planning 3
COUN 163 F $\quad$ Personal Growth and Life Transitions 3
ECON 101 F Principles of Economics - Micro or 3
ECON 101HF Honors Principles of Economics - Micro 3
ECON 102 F Principles of Economics - Macro or 3
ECON 102HF Honors Principles of Economics - Macro 3
ETHS 101 F American Ethnic Studies 4
ETHS 129 F Introduction to African-American Studies 3
ETHS 130 F African-American History I 3
ETHS 131 F African-American History II 3
ETHS 140 F Introduction to Chicano/a Studies 3
ETHS 141 F Chicana/Chicano History 3
ETHS 142 F The Chicano-a/Latino-a in Contemp. Society 3

ETHS 171 F Asian-American History 3
GEOG 100 F Global Geography or 3
GEOG 100HF Honors Global Geography 3
Global Environmental Problems

HIST 110 F Western Civilization I or 3
HIST 110HF Honors Western Civilization I 3
HIST 111 F Western Civilization II or 3
HIST 111HF Honors Western Civilization II 3
HIST 112 F World Civilizations I or 3
HIST 112HF Honors World Civilizations I 3
HIST 113 F World Civilizations II or 3
HIST 113HF Honors World Civilizations II 3
HIST 127 F Survey of American History 3
Survey of British History
Survey of British History II

Interdisciplinary Studies cont'd. $\rightarrow$

## Interdisciplinary Studies cont'd.

HIST 275 F History of California and the Pacific Coast 3
JOUR 110 F Mass Media Survey 3
POSC 100 F American Government or 3
POSC 100HF Honors American Government 3
POSC 110 F Contemporary Issues in American Politics 3
POSC 120 F Introduction to Political Theory
3
POSC 150 F California Government and Politics 3
POSC 200 F Introduction to the Study of Politics 3
POSC 215 F Comparative Politics
POSC 216 F Government and Politics of the Middle East 3
3
POSC 220 F Introduction to Public Administration
POSC 230 F Introduction to International Relations
POSC 275 F Introduction to Public Law
PSY 101 F General Psychology or
PSY 101HF Honors General Psychology
PSY 131 F Cross Cultural Psychology
PSY 145 F Child Psychology
PSY 202 F Research Methods in Psychology
PSY 222 F
PSY 251 F Social Psychology or 3
PSY 251HF Honors Social Psychology 3
SOC 101 F Intro to Sociology or
SOC 101HF Honors Intro to Sociology
SOC 102 F Social Problems
SOC 201 F Dying and Death
SOC 225 F Sociology of Women or
SOC 225HF Honors Sociology of Women
SOC 275 F Marriage and Family or
SOC 275HF Honors Marriage and Family
SOC 285 F Drugs and Society
SOC 292 F Introduction to Criminology
WMNS 100 F Introduction to Women's Studies

Interdisciplinary Studies with an Emphasis in Social Behavior and Self-Development
These courses provide students knowledge and understanding of social behavior and self-development. This area of emphasis is designed to prepare students to use their understanding of themselves and others to communicate and collaborate more effectively. It combines knowledge of theory with attention to personal growth and purpose, as well as health and wellness. Students learn to become citizens who care for themselves and others, ready to work with people in their communities. Participation in group activities and collaborative projects is a central focus of this emphasis, allowing students to experience group interactions in a variety of contexts. This emphasis includes lower division coursework that prepares students for social/ health/human services majors and careers in people/community oriented professions including social, health and recreational services.

Choose at least one course from each category below (A, B, and C), Then complete additional courses from categories $A, B$, and/or $C$ to reach a total of 18 units:

## A) Theory and Knowledge

ANTH 102 F Cultural Anthropology or 3
ANTH 102HF Honors Cultural Anthropology 3
ANTH 105 F Language and Culture 3
BUS 266 F Human Relations in Business 3
CDES 120 F Child Development 3
CDES 140 F Infant/Toddler Development and Observation 3
CDES 173 F The Process of Parenting 3
CDES 201 F Child in the Home and Community 3
ETHS 101 F American Ethnic Studies 4
ETHS 129 F Introduction to African-American Studies 3
ETHS 130 F African-American History I 3
ETHS 131 F African-American History II 3
ETHS 140 F Introduction to Chicano/a Studies 3
ETHS 141 F Chicana/Chicano History 3
ETHS 142 F The Chicano-a/Latino-a in Contemp. Society 3
ETHS 160 F History of the Native Americans 3
ETHS 170 F Introduction to Asian American Studies 3
ETHS 171 F Asian-American History 3
GEOG 160 F Cultural Geography 3
HIST 127 F Survey of American History 3
HIST 170 F History of the United States I 3
HIST 170HF Honors History of the United States I 3
HIST 171 F History of the United States II 3
HIST 171HF Honors History of the United States II 3
HIST 270 F Women in United States History 3
HIST 275 F History of California and the Pacific Coast 3
POSC 100 F American Government 3
POSC 100HF Honors American Government 3
PSY 101 F General Psychology or 3
PSY 101HF Honors General Psychology 3
PSY 110 F Introduction to Applied Psychology 3
PSY 120 F Human Sexuality 3
PSY 131 F Cross Cultural Psychology 3
PSY 139 F Developmental Psychology: Life Cycle 3
PSY 145 F Child Psychology 3
PSY 202 F Research Methods in Psychology 3
PSY 222 F Abnormal Psychology 3
PSY 251 F Social Psychology or 3
PSY 251HF Honors Social Psychology 3
SOC 101 F Intro to Sociology or 3
SOC 101HF Honors Intro to Sociology 3
SOC 102 F Social Problems 3
SOC 201 F Dying and Death 3
SOC 225 F Sociology of Women or 3
SOC 225HF Honors Sociology of Women 3
SOC 275 F Marriage and Family or 3
SOC 275HF Honors Marriage and Family 3
SOC 285 F Drugs and Society 3
SOC 292 F Introduction to Criminology 3
SPCH 100 F Public Speaking 4
SPCH 120 F Intercultural Communication 3

Interdisciplinary Studies cont'd.
SPCH 124 F Small Group Communication 3
SPCH 135 F Essentials of Argumentation 4

WMNS 100 F Introduction to Women's Studies
B) Growth and Purpose

COUN 101 F College Experience
COUN 110 F Teaching as a Career
COUN 135 F Introduction to Leadership Development 3
COUN 136 F Applied Leadership
COUN 140 F Educational Planning
COUN 141 F Career Exploration
COUN 143 F Creative Job Search
COUN 144 F Career Motivation/Self Confidence
COUN 148 F Human Potential
COUN 151 F Career/Life PlanningCOUN 163 F Personal Growth and Life Transitions3

COUN 199 F Counseling/Guidance Independent Study

STSV 223 F Helping Skills in Human Services
C) Health and Wellness

HED 140 F Health Science
NUTR 210 F Nutrition Today
3
PE 248 F Psychology of Sport
PE 266 F Physical Fitness as a Lifelong Concept
PE Activity Classes (units vary)
WELL 230 F The Body-Mind Connection

## INTERIOR DESIGN

## Commercial Design Certificate

Curriculum leads to employment as an Interior Design Assistant. The Commercial Design Certificate program requires the completion of not less than 48 units of which 35 units are in required courses. An additional 13 units must be chosen from the restricted electives listed below.

## Required Courses (35 units)

Units
ARCH 113 F Architectural Drawing I 3
ARCH 124 F Architectural CAD I
IDES 100 F Fundamentals of Interior Design
IDES 105 F Interior Design Studio I
IDES 130 F Applied Color and Design Theory
IDES 147 F Office Planning
IDES 150 F Interior Materials and Products
IDES 190 F History of Interior Architecture II
IDES 210 F Fundamentals of Lighting
IDES 215 F Interior Design Studio II
IDES 230 F Business and Professional Practice
IDES 240 F Interior Design Internship

| Restricted Electives (13 units) | Units |  |
| :--- | :--- | ---: |
| ARCH 924 F | Architectural CAD II | 3 |
| CSTR 030 F | Construction Blueprint Reading | 3 |
| IDES 120 F | Interior Design Careers | 2 |
| IDES 130 F | Applied Color and Design Theory | 4 |
| IDES 180 F | History of Interior Architecture I | 3 |
| IDES 200 F | Interior Illustration | 2 |
| IDES 215 F | Interior Design Studio II | 2 |
| IDES 248AF | Restaurant/Hotel Design | 2 |
| IDES 248BF | Medical/Health Design | 2 |
| IDES 249AF | Studies in International Architecture or | 1 |
| IDES 249BF | Studies in International Architecture or | 2 |
| IDES 249CF | Studies in International Architecture | 3 |
| Total Units: |  | $\mathbf{4 8}$ |

## Interior Design Assistant <br> Associate in Science Degree

Curriculum leads to the Interior Design Assistant Associate in Science Degree and/or employment in the field of interior design assistant. The degree requires completion of the Interior Merchandising - Level I Certificate (27 units) plus the following 21 units. This program does not fulfill requirements for transfer to any four-year state university.

| Completion of Interior Merchandising — Level I Certificate |  |  |
| :--- | :--- | ---: |
| (27 units) Plus the following 21 units: | Units |  |
| ARCH 113 F | Architectural Dwg. I (In lieu of IDES 220F) | 3 |
| IDES 170 F | Space Planning | 3 |
| IDES 180 F | History of Interior Architecture I | 3 |
| IDES 190 F | History of Interior Architecture II | 3 |
| IDES 200 F | Interior Illustration | 2 |
| IDES 210 F | Fundamentals of Lighting | 3 |
| IDES 215 F | Interior Design Studio II | 2 |
| IDES 240 F | Interior Design Internship | 2 |

*Part of the Regional Interior Design Program is not available at Fullerton College at this time. It is available at other schools participating in the program.

## Interior Merchandising - <br> Level I Certificate

The Interior Merchandising - Level I Certificate program requires the completion of 27 units listed below. This certificate is Level I of the Regional Interior Design Program.

Required Courses (27 units)
ARCH 124 F Architectural CAD
ARCH 924 F Architectural CAD II
IDES 100 F Fundamentals of Interior Design
IDES 105 F Interior Design Studio I
IDES 110 F Beginning Drafting for Interior Design
IDES 120 F Interior Design Careers
IDES 130 F Applied Color and Design Theory
IDES 150 F Interior Materials and Products
MKT $208 \mathrm{~F} \quad$ Principles of Selling
Total Units:

## Residential Design Certificate

The Residential Design Certificate program requires a completion of not less than 48 units of which 32 units are in required courses. An additional 16 units must be chosen from the restricted units listed below. A minimum grade of " C " is required for all courses.

## Required Courses (32 units) <br> Units

FASH 206 F Textiles 3
IDES 100 F Fundamentals of Interior Design 3
IDES 105 F Interior Design Studio I 2
IDES 110 F Beginning Drafting for Interior Design 3
IDES 130 F Applied Color and Design Theory 4
IDES 150 F Interior Materials and Products 4
IDES 170 F Space Planning 3
IDES 180 F History of Interior Architecture I 3
IDES 190 F History of Interior Architecture II 3
IDES 215 F Interior Design Studio II 2
IDES 240 F Interior Design Internship 2
Restricted Electives (16 units)
Units
ARCH 113 F Architectural Drawing I 3
ARCH 124 F Architectural CAD I 3
ART 112 F Art History: Ancient and Medieval 3
ART 113 F Art History: Renaissance to Modern or 3
ART 114 F Art History: Impressionism to the Present 3
ART 120 F Basic Design 3
ART 179 F Drawing for Non-Art Majors or 2
ART 182 F Basic Drawing 3
CSTR 006 F Intro to Residential Plumbing/Mech. Systems 3
FASH 202 F Visual Merchandising 2
IDES 085 F Kitchen and Bath Design 2
IDES 120 F Interior Design Careers 2
IDES 200 F Interior Illustration 2
IDES 210 F Fundamentals of Lighting 3
IDES 230 F Business and Professional Practice 3
IDES 249AF Studies in International Architecture or 1
IDES 249BF Studies in International Architecture or 2
IDES 249CF Studies in International Architecture 3

## Total Units:

## JOURNALISM

## Communications: Journalism Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree and/or entrylevel employment in radio and television communications. High School Preparation: typing and speech. This degree requires 18 units chosen from the courses listed below.

| Required Courses (18 units) | Units |  |
| :--- | :--- | ---: |
| CRTV 129 F | Broadcast News | 3 |
| JOUR 101 F | Reporting and Writing | 3 |
| JOUR 102 F | Reporting and Writing | 3 |
| JOUR 110 F | Mass Media Survey | 3 |
| JOUR 225 F | Newspaper Production | 3 |
| PHOT 101 F | Intro to Photography or | 3 |
| PHOT 219 F | Photojournalism | 3 |
| Total Units: | $\underline{\mathbf{1 8}}$ |  |

## Advertising Certificate

The Advertising Certificate program totals 26 units, of which 20 are in required courses. An additional 6 units must be chosen from restricted electives below. A minimum grade of "C" is required in each course taken.

| Required Courses (20 units) | Units |  |
| :--- | :--- | ---: |
| ACG 100 F | Intro: Computer Graphics/MAC | 3 |
| ART 140 F | Intro to Advertising and Graphic Design | 3 |
| ART 146 F | Advertising Design | 3 |
| JOUR 101 F | Reporting and Writing | 3 |
| JOUR 140 F | Public Relations and Publicity | 3 |
| MKT 103 F | Principles of Advertising | 3 |
| MKT 152 F | Internet Advertising | 2 |
|  |  | Units |
| Restricted Electives (6 units) | 3 |  |
| JOUR 135 F | Magazine Production | 3 |
| JOUR 225 F | Newspaper Production | 3 |
| MKT 100 F | Intro to Marketing | 3 |
| MKT 208 F | Principles of Selling | 3 |
| PHOT 101 F | Intro to Photography | 2 |
| PRNT 130 F | Graphics | $\mathbf{2 6}$ |
| Total Units: |  |  |

ACG 100 F Intro: Computer Graphics/MAC 3
ART 140 F Intro to Advertising and Graphic Design 3
ART 146 F Advertising Design 3
JOUR 101 F Reporting and Writing 3
JOUR 140 F Public Relations and Publicity 3
MKT 103 F Principles of Advertising 3
MKT 152 F Internet Advertising 2
Restricted Electives (6 units) Units
JOUR 135 F Magazine Production 3
JOUR 225 F Newspaper Production 3
MKT 100 F Intro to Marketing 3
PKT 208 F Principles of Selling 3
PRNT 130 F Graphics 2
Total Units: 26

## Journalism Certificate

The Journalism Certificate program will provide students with sufficient background for reporting, writing and production jobs on community newspapers and weekly publications. The certificate requires a total of 30 units of which 24 units are in required courses. An additional 6 units must be completed from the restricted electives listed below. A minimum grade of " C " is required in each course taken.

## Required Courses (24 units)

Units
ACG 100 F Intro: Computer Graphics/MAC 3
CRTV 129 F Broadcast News 3
JOUR 101 F Reporting and Writing 3
JOUR 102 F Reporting and Writing 3
JOUR 110 F Mass Media Survey 3
JOUR 135 F Magazine Production 3
JOUR 140 F Public Relations and Publicity 3
JOUR 225 F Newspaper Production 3
Restricted Electives (6 units) Units
ART 145 F Publication Design
3
JOUR 135 F Magazine Production 3
JOUR 199 F Communications Independent Study 1-3
JOUR 225 F Newspaper Production 3
PHOT 101 F Intro to Photography 3
Total Units:

## Public Relations Certificate

The Public Relations Certificate program requires the completion of 27 units of which 21 units are required. An additional 6 units must be selected from the restricted electives. A minimum grade of " C " is required in each course taken.

## Required Courses (21 units) <br> Units

ACG 100 F Intro: Computer Graphics/MAC 3
BUS 270 F Management Communications
3
JOUR 101 F Reporting and Writing
3
JOUR 102 F Reporting and Writing 3
JOUR 110 F Mass Media Survey
3
JOUR 135 F Magazine Production 3
JOUR 140 F Public Relations and Publicity 3
JOUR 225 F Newspaper Production 3
Restricted Electives (6 units)
Units
JOUR 240 F Advanced Public Relations
3
MKT 100 F Intro to Marketing 3
MKT 103 F Principles of Advertising 3
MKT 201 F Small Business Promotions 3
MKT 208 F Principles of Selling 3
PHOT 101 F Intro to Photography 3
PRNT 130 F Graphics
Total Units:

## LATIN-AMERICAN STUDIES

## Social Sciences Division

Office: Bldg 1000
714.992.7011

Dean: Dan Tesar
Website: socsci.fullcoll.edu

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units chosen from the courses listed below.

| Complete 18 units from the following list: | Units |  |
| :--- | :--- | ---: |
| ANTH 101 F | Physical Anthropology | 3 |
| ANTH 102 F | Cultural Anthropology | 3 |
| BUS 131 F | Principles of International Business | 3 |
| ECON 101 F | Principles of Economics — Micro | 3 |
| ECON 102 F | Principles of Economics - Macro | 3 |
| GEOG 100 F | Global Geography | 3 |
| GEOG 160 F | Cultural Geography | 3 |
| HIST 110 F | Western Civilization I | 3 |
| HIST 111 F | Western Civilization II | 3 |
| HIST 162AF | History of the Americas I | 3 |
| HIST 162BF | History of the Americas II | 3 |
| POSC 215 F | Comparative Political Systems | 3 |
| SOC 101 F | Intro to Sociology | 3 |
| SPAN 203 F | Intermediate Spanish III | 4 |
| SPAN 204 F | Intermediate Spanish IV | 4 |
| Total Units: |  | $\mathbf{1 8}$ |

Total Units:

## MACHINE TECHNOLOGY

## CNC Operator Certificate

The CNC Operator Certificate program requires a total of 14 units of which 14 units are in required courses with a minimum grade of " $C$ " in each course taken. At least one-half of the units toward the certificate must be completed at Fullerton College. The goal of this certificate is to prepare students for entry-level employment as CNC (Computer Numerical Control) machine tool operators and to enhance the skills of machinists who are currently employed in the trade.


## Computer Numerical Control (CNC) Certificate

The Computer Numerical Control (CNC) Certificate program requires the completion of 43-44 units of which 35 units are in required courses. An additional 9 units must be chosen from the restricted electives listed below. A minimum grade of "C" is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (34-35 units) | Units |  |
| :--- | :--- | ---: |
| DRAF 070 F | Blueprint Reading for the Metal Trades | 2 |
| DRAF 140 F | AutoCAD for Industry | 2 |
| DRAF 173 F | Geometric Dimensioning and Tolerancing | 2 |
| MACH 050 F | CNC Programming Using Mastercam | 3 |
| MACH 060 F | CNC Programming Using SURFCAM | 3 |
| MACH 052 F | Adv. CNC Programming Using Mastercam or | 3 |
| MACH 062 F | Adv. CNC Programming Using SURFCAM | 3 |
| MACH 086 F | CNC Machine Set-Up and Operation | 3 |
| MACH 087 F | CNC Parts Programming | 3 |
| MACH 091 F | Intro to Machine Tools or | 5 |
| MACH 116 F | Machine Tools | 2 |
| METL 192 F | Fundamentals of Metallurgy | 3 |
| TECH 081 F | Technical Mathematics I | 3 |
| TECH 108 F | Manufacturing Processes | 3 |
|  |  |  |
| Restricted Electives (9 units) | 2 |  |
| DRAF 145 F | CAD/CAM | 3 |
| MACH 040 F | CNC Wire EDM: Programming \& Operation | 3 |
| MACH 052 F | Adv. CNC Programming Using Mastercam or | 3 |
| MACH 062 F | Adv. CNC Programming Using SURFCAM | 3 |
| MACH 088 F | Advanced CNC Machining | 3 |
| MACH 092 F | Intermediate Machine Tools | 5 |
| TECH 088 F | Technical Science | 3 |
| TECH 127 F | Industrial Safety | 1 |
| WELD 121AF | Intro to Welding | 2 |
| Total Units: |  | $43-44$ |
|  |  |  |

## Machine Technology - Level I Certificate

The Machine Technology - Level I Certificate program requires the completion of 17-18 units with a minimum grade of " $C$ " in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.
Required Courses (17-18 units) Units
MACH 086 F CNC Machine Set-Up and Operation ..... 3
MACH 091 F Intro to Machine Tools or ..... 5
MACH 116 F Machine Tools ..... 2+2
MACH 092 F Intermediate Machine Tools ..... 5
MACH 093 F Advanced Machine Tools ..... 5
Total Units:17-18

## Machine Technology - Level II Certificate

The Machine Technology - Level II Certificate program requires the completion of 34 units of which 25 units are in required courses. An additional 9 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

| Required Courses (24-25 units) | Units |  |
| :--- | :--- | ---: |
| DRAF 070 F | Blueprint Reading for the Metal Trades | 2 |
| DRAF 173 F | Geometric Dimensioning and Tolerancing | 2 |
| MACH 086 F | CNC Machine Set-Up and Operation | 3 |
| MACH 091 F | Intro to Machine Tools or | 5 |
| MACH 116 F | Machine Tools | 2 |
| MACH 092 F | Intermediate Machine Tools | 5 |
| MACH 093 F | Advanced Machine Tools | 5 |
| TECH 081 F | Technical Mathematics I | 3 |
|  |  |  |
| Restricted Electives (9 units) | 2 |  |
| DRAF 171 F | Fundamentals of Drafting | $.5-2$ |
| MACH 010 F | Machining Skills Lab | 3 |
| MACH 040 F | CNC Wire EDM: Programming \& Operation | 3 |
| MACH 088 F | Advanced CNC Machining | 3 |
| METL 192 F | Fundamentals of Metallurgy | 3 |
| TECH 108 F | Manufacturing Processes | 1 |
| TECH 127 F | Industrial Safety | 2 |
| WELD 121AF | Intro to Welding | $\mathbf{3 4}$ |
| Total Units: |  |  |

## Mastercam Certificate

The Mastercam Certificate requires a total of 6 units. Both classes must be completed with a grade of " $B$ " or better.

| Required Courses (6 units) | Units |  |
| :--- | ---: | ---: |
| MACH 050 F | CNC Programming Using Mastercam | 3 |
| MACH 052 F | Adv. CNC Programming Using Mastercam | 3 |
| Total Units: | $\mathbf{6}$ |  |

## Surfcam Certificate

The Surfcam Certificate requires a total of 6 units. Both classes must be completed with a grade of " $B$ " or better.

| Required Courses ( $\mathbf{6}$ units) | Units |  |
| :--- | ---: | ---: |
| MACH 060 F | CNC Programming Using SURFCAM | 3 |
| MACH 062 F | Adv. CNC Programming Using SURFCAM | 3 |
| Total Units: | $\mathbf{6}$ |  |

## MANUFACTURING TECHNOLOGY

## Technology and Engineering Division

Office: Bldg 700
714.992.7211

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree. The Manufacturing Technology Major incorporates courses from a number of departments within the Technology and Engineering Division. A student pursuing the Manufacturing Technology Major must take core courses from all of these departments in addition to a concentration in one or more of the major areas. The areas of concentration are: Drafting, Machine Technology, and Welding. Requires 24 units from courses listed.

Complete 24 or more units from the following list: Required CORE Courses (9 units)

Units
DRAF 171 F Fundamentals of Drafting 2
MACH 116 F Machine Tools 2
TECH 108 F Manufacturing Processes 3
WELD 121AF Intro to Welding
Additional (15 units)
Units
Any Drafting course
Any Machine Technology course
Any Welding course except WELD 095 F
METL 192 F Fundamentals of Metallurgy
TECH 127 F Industrial Safety
Total Units:

## MARKETING MANAGEMENT

## Marketing Management Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in an entry-level position in the field of marketing. This degree requires 29-30 units following the requirements listed below.

| Required Courses | Units |  |
| :--- | ---: | ---: |
| CIS 100 F | Intro to Personal Computers | 3 |
| MKT 151 F | Internet Marketing | 2 |
|  |  |  |
| One course from the following |  |  |
| for a total of | 3-4 units: | Units |
| ACCT 001 F | Accounting for Small Business | 3 |
| ACCT 100BF | Financial Accounting Principles | 3 |
| ACCT 101AF | Financial Accounting | 4 |

One course from the following

for a total of 3 units:

Units

BUS 111 F Business Communications 3
BUS 211 F Writing for Business 3
One course from the following
for a total of 3 units:
BUS 100 F Intro to Business 3
BUS 180 F Small Business Management 3
One course from the following
for a total of 3 units: Units
BUS 162 F Business Economics 3
BUS 170 F Principles of E-Business 3
ECON 101 F Principles of Economics — Micro 3
One course from the following for a total of 3 units:
(See counselor for determination of correct course) Units
BUS 240 F Legal Environment of Business 3
BUS 241AF Business Law 3
One course from the following
for a total of 3 units:
Units
BUS 224 F International Marketing 3
MKT 100 F Intro to Marketing 3
One course from the following
for a total of 3 units:
MKT 103 F Principles of Advertising 3
MKT 205 F Multicultural Markets in U.S. 3
One course from the following
for a total of 3 units: Units
MKT 201 F Small Business Promotions 3
MKT 208 F Principles of Selling 3
Total Units: 29-30

## Marketing Management Certificate

The Marketing Management Certificate requires completion of 28-30 units following the requirements listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

## Required Courses <br> Units

CIS 100 F Intro to Personal Computers 3
MKT 151 F Internet Marketing
One course from the following
for a total of 3-4 units:
Units
ACCT 001 F Accounting for Small Business
ACCT 100BF Financial Accounting Principles
ACCT 101AF Financial Accounting
One course from the following
for a total of 3 units:
Units
BUS 111 F Business Communications
BUS 211 F Writing for Business
One course from the following
for a total of 3 units: Units
BUS 100 F Intro to Business3
BUS 180 F Small Business Management ..... 3
One course from the following
for a total of 3 units:
Units
BUS 162 F Business Economics3
BUS 170 F Principles of E-Business ..... 3
ECON 101 F Principles of Economics - Micro ..... 3
One course from the following for a total of 3 units:
(See counselor for determination of correct course) Units
BUS 240 F Legal Environment of Business ..... 3
BUS 241AF Business Law ..... 3
One course from the following
for a total of 3 units
Units
BUS 224 F International Marketing ..... 3
MKT 100 F Intro to Marketing ..... 3
One course from the following
for a total of 3 units:Units
MKT 103 F Principles of Advertising ..... 3
MKT 205 F Multicultural Markets in U.S. ..... 3
One course from the following for a total of 2-3 units:
BUS 269 F Managing Business Projects ..... 2
MKT 090 F Current Issues in Marketing ..... 5-3
(Minimum of 2 units meets requirement)
MKT 201 F Small Business Promotions3
MKT 208 F Principles of Selling ..... 3
Total Units: ..... 28-30

## MATHEMATICS

## Associate in Arts Degree

The Mathematics Associate in Arts Degree program requires 18 units of which 12 units are in required courses. An additional 6 units must be chosen from the restricted electives listed below. A minimum of 10 units in the major must be completed at Fullerton College. A minimum grade of "C" is required in all courses.
Required Courses: (12 units) ..... Units
MATH 150AF Calculus I ..... 4
MATH 150BF Calculus II ..... 4
MATH 250AF Multivariable Calculus

| Restricted Electives: (6 units) | Units |  |
| :--- | :--- | ---: |
| CSCI 123 F | Intro to Programming Concepts in C++ | 4 |
| MATH 120 F | Introductory Probability and Statistics | 4 |
| MATH 171 F | Discrete Mathematics | 4 |
| MATH 172 F | Graph Theory and Linear Algebra | 4 |
| MATH 250BF | Linear Algebra and Differential Equations | 4 |
| MATH 250CF | Additional Topics in Linear Algebra | 2 |
| PHYS 221 F | General Physics I | 4 |
| Total Units: |  | $\mathbf{1 8}$ |

MEDICAL TECHNOLOGY
Natural Sciences Division
Office: Bldg 400
714.992.7105
Dean: Bruce Cordell
Website: natsci.fullcoll.edu
Associate in Arts Degree
The Associate in Arts Degree program requires a total of18 units chosen from the courses listed below.
Select 18 units from the following: ..... Units
ANAT 231 F General Human Anatomy ..... 4
ANAT 240 F Human Physiology ..... 5
BIOL 266 F General Zoology ..... 5
BIOL 272 F Cell and Molecular Biology ..... 4
CHEM 101 F Intro to Chemistry ..... 5
CHEM 107 F Elementary Chemistry ..... 5
General Chemistry ..... 5
CHEM 111BF General Chemistry ..... 5
MATH 141 F College Algebra ..... 4
MATH 142 F Trigonometry ..... 4
MICR 220 F Medical Microbiology ..... 4
PHYS 205 F Physics for the Life Sciences I ..... 5
PHYS 206 F Physics for the Life Sciences II ..... 4
Total Units: ..... 18

## MICROBIOLOGY

## Associate in Arts Degree

The Associate in Arts Degree program requires a total of 18 units of which 9-10 units are in required courses. An additional 8-9 units chosen from the restricted electives listed below.

| Required Courses (9-10) | Units |  |
| :--- | :--- | ---: |
| Choose 2 courses from the following: |  |  |
| BIOL 266 F | General Zoology | 5 |
| BIOL 268 F | General Botany | 5 |
| BIOL 272 F | Cell and Molecular Biology | 4 |
| MICR 262 F | General Microbiology | 5 |

## Units

 554
## Select remaining units from the following:

CHEM 107 F Elementary Chemistry
CHEM 111AF General Chemistry
CHEM 111BF General Chemistry
CHEM 200 F Elementary Organic Chemistry
3
CHEM 211AF Organic Chemistry
CHEM 211BF Organic Chemistry
MATH 141 F College Algebra
MATH 142 F Trigonometry
PHYS 205 F Physics for the Life Sciences I
PHYS 206 F Physics for the Life Sciences II
Total Units:

## MUSIC

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires a total of 32-38 units of which 31 units are in required courses. An additional 3-7 units must be chosen from the restricted electives listed below.

| Required Courses (29*-31 units) | Units |  |
| :--- | :--- | ---: |
| MUS 108 F | Intro to Music Technology | 2 |
| MUS 106 F | Intro to Music Theory | 3 |
| MUS 104AF | Beginning Musicianship | 1 |
| MUS 104BF | Intermediate Musicianship | 1 |
| MUS 107AF | Harmony I | 3 |
| MUS 107BF | Harmony II | 3 |
| MUS 204AF | Advanced Musicianship | 1 |
| MUS 135AF* | Beginning Piano | 1 |
| MUS 135BF* | Piano | 1 |
| MUS 120 F | Survey of Music History | 3 |
| MUS 225 F | Applied Music - Private Study or | 1 |
| MUS 228 F | Advanced Voice or | 1 |
| MUS 237 F | Advanced Piano or | 1 |
| MUS 244 F | Advanced Strings or | 1 |
| MUS 247 F | Advanced Woodwinds or | 1 |
| MUS 250 F | Advanced Brass or | 1 |
| MUS 253 F | Advanced Percussion | 1 |
| MUS 123 F | Concert Hour | 1 |
| Major performance group each semester | $1,1,1,1$ |  |
| Applied Music - Private study or Advanced Instrument study |  |  |
| each semester | $1,1,1,1$ |  |
| Music 123 F | Concert Hour each semester | $1,1,1,1$ |
| Restricted Electives (3-7 units) |  |  |
| MUS 030 F | Music Notation Software | Units |
| MUS 203 F | Counterpoint | 2 |
| MUS 204BF | Pop/Commercial Musicianship | 3 |
| MUS 205 F | Pop/Commercial Music Theory | 1 |
| MUS 207 F | Pop/Commercial Arranging/Composing | 3 |
| Total Units: |  | $32-38$ |
|  |  |  |
| *Proficiency |  |  |
| this requirement. or equialent course work will be accepted for |  |  |
|  |  |  |

## Music: Commercial

## Associate in Arts Degree

Curriculum leads to the Music: Commercial Associate in Arts Degree and provides training for those who do not plan to transfer to a four-year university or college. The emphasis is upon preparation of the performer, composer, or arranger. While most of the courses suggested are transferable, the curriculum does not meet the general education requirements for the lower division of a four-year university or college. This degree requires 22 units of which 19 units are in required courses. An additional 3 units must be chosen from the restricted electives listed below.

## Required Courses (19 units)

| MUS 108 F | Intro to Music Technology | 2 |
| :--- | :--- | ---: |
| MUS 123 F | Concert Hour (4 terms required) | .5 |
| MUS 135BF | Piano (3rd term) | 1 |
| MUS 207 F | Pop/Commercial Arranging/Composing | 3 |
| MUS 224 F | Recording Studio II | 3 |
| Performance group each semester | 1 |  |
| Applied music class each semester (200 level) | 1 |  |

Restricted Electives (3 units) Units
MUS 112 F The Music Business 2
MUS 113 F Jazz History: An Appreciation 3
MUS 119 F History of Rock Music 3
MUS 120 F Survey of Music History 3
MUS 156 F Beg. Jazz Improvisation: Instrumental or 1
MUS 157 F Beg. Vocal Styling and Improvisation 1
MUS 208 F Music Copying 2
MUS 256 F Adv. Jazz Improvisation: Instrumental or 1
MUS 257 F Adv. Vocal Styling and Improvisation
Total Units:

## Certificate in Piano Teaching

The Certificate in Piano Teaching is a two-semester program that is intended for anyone seeking to expand their teaching and playing skills. The certificate program is for potential piano teachers and the sequence of courses is designed to provide the technical skills, theoretical background, musical understanding and historical background needed for effective teaching. This certificate requires completion of 24 units. MUS 021 F and MUS 022 F Teaching of Piano must be completed at Fullerton College.

Required Courses (24 units)
CDES 120 F Child Development
MUS 021 F The Teaching of Piano I
MUS 022 F The Teaching of Piano II
MUS 107AF Harmony I
MUS 107BF Harmony II
MUS 104AF Beginning Musicianship
MUS 104BF Intermediate Musicianship
MUS 120 F Survey of Music History
MUS 225 F Applied Music: Private Study
MUS 265 F Piano Ensemble
Total Units:

## Recording/Production Certificate

The Recording/Production Certificate in Music requires the completion of the 33 units listed below with a minimum grade of " $C$ " in each course taken.

| MUS 108 F | Intro to Music Technology | 2 |
| :--- | :--- | ---: |
| MUS 110 F | Electronic Music I | 3 |
| MUS 112 F | The Music Business | 2 |
| MUS 113 F | Jazz History: An Appreciation or | 3 |
| MUS 119 F | History of Rock Music | 3 |
| MUS 116 F | Music Appreciation | 3 |
| MUS 124 F | Recording Studio I | 3 |
| MUS 135AF | Beginning Piano | 1 |
| MUS 135BF | Piano* | 1 |
| MUS 224 F | Recording Studio II (1st/2nd terms) | 3 |
| MUS 910 F | Electronic Music II* (1st/2nd/3rd terms) | $\frac{3}{3}$ |
| Total Units: |  | 3 |

*Proficiency examination or equivalent curriculum will be accepted for this requirement.

## Music Major General Requirements

As a music major, you are expected to declare a performance area (voice, piano, or other instrument), to participate in at least one large performing group each semester, to be enrolled in Concert Hour each semester, to be enrolled in music theory and musicianship each semester, and to perform for student recitals and faculty juries on your major instrument each semester unless special exemption has been allowed. In addition to studying your major instrument each semester, you are urged to develop as much facility on the piano as possible because of its importance in other areas of your musical training.

APPLIED MUSIC: Four-year colleges vary in the amount of applied music credit that may be applied to the Baccalaureate degree. Students are cautioned to check the catalog of the college they plan to attend for its specific statement on the amount of applied music credit that will count toward the degree.

## OFFICE TECHNOLOGY

## Administrative Office Assistant Associate in Science Degree

Curriculum leads to the Administrative Office Assistant Associate in Science Degree and/or employment in the office management position. This degree requires 60 units of which 26-27 units must be chosen from the following requirements listed below. An additional 5-6 units must be chosen from the restricted electives listed below. *See this catalog for options for the Associate in Science Degree general education requirements.
Required Courses (26-27 units) Units
ACCT 100BF Financial Accounting Principles or ..... 3
ACCT 101AF Financial Accounting ..... 4
BUS 100 F Intro to Business ..... 3
BUS 111 F Business Communications ..... 3
BUS 266 F Human Relations in Business ..... 3
CIS 104 F Presentation Graphics ..... 2
CIS 105 F Spreadsheet I ..... 2
CIS 109 F Personal Computer Security ..... 2
CIS 123AF Word Processing I ..... 2
CIS 123BF Word Processing II ..... 2
CIS 142 F Database I ..... 2
OT 070 F Business Protocol and Ethics ..... 2
OT 080 F Keyboarding - Beginning ..... 1.5
OT 081 F Keyboarding - Speed and Accuracy ..... 1.5
Restricted Electives (5-6 units) ..... Units
BUS $151 \mathrm{~F} \quad$ Business Mathematics ..... 3
CIS 150 F Intro to Internet ..... 2
CIS 048 F Intro to PC Communications ..... 2
CIS 120AF Project Management I ..... 2
CIS 120BF Project Management II ..... 2
CIS 151 F Internet Research ..... 2
Total Units:60

## Administrative Office Assistant Certificate

The Administrative Office Assistant Certificate requires the completion of 33-34 units of which 26-27 must be chosen from the required courses. An additional 5-6 units must be chosen from the restricted electives listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.
Required Courses (26-27 units)ACCT 100BF Financial Accounting Principles or 3
ACCT 101AF Financial Accounting3
BUS 111 F Business Communications ..... 3
BUS 266 F Human Relations in Business ..... 3
CIS 104 F Presentation Graphics ..... 2
CIS 105 F Spreadsheet I ..... 2
CIS 109 F Personal Computer Security ..... 2
CIS 123AF Word Processing I ..... 2
CIS 123BF Word Processing II ..... 2
CIS 070 F Current Computer Topics ..... 1-3
CIS 142 F Database I ..... 2
OT 080 F Keyboarding - Beginning ..... 1.5
1.5

| Restricted Electives (5-6 units) | Units |  |
| :--- | :--- | ---: |
| BUS 151 F | Business Mathematics | 3 |
| CIS 048 F | Intro to PC Communications | 2 |
| CIS 102 F | Intro to Open Source Software | 3 |
| CIS 120AF | Project Management I | 2 |
| CIS 120BF | Project Management II | 2 |
| CIS 150 F | Intro to Internet | 2 |
| CIS 151 F | Internet Research | 2 |
| OT 010 F | Computer Concepts | 1 |
| OT 011 F | College Keyboarding Skills | 1 |
| OT 012 F | College Keyboarding Formatting Skills | 1 |
| OT 013 F | College Keyboard Speed and Accuracy | 1 |
| OT 020 F | Business Career Success Skills | 1 |
| OT 021 F | Business Resume Writing Skills | 1 |
| OT 025 F | Basic Internet Skills | 1 |
| OT 026 F | Basic HTML Skills | 1 |
| OT 027 F | Basic Adobe PageMaker | 1 |
| OT 028 F | Basic Adobe Illustrator | 1 |
| OT 035 F | Basic WordPerfect Skills | 1 |
| OT 036 F | Basic Microsoft Word Skills | 1 |
| OT 037 F | Basic Microsoft Excel Skills | 1 |
| OT 038 F | Basic Microsoft Access Skills | 1 |
| OT 039 F | Basic Microsoft PowerPoint Skills | 1 |
| OT 040 F | Basic Microsoft Publisher Skills | 1 |
| OT 041 F | MS Word for Academic Papers | 1 |
| OT 042 F | MS Word for Academic Papers | $.5-1$ |
| OT 043 F | Creating Promotional Pieces | $.5-1$ |
| Total Units: |  | 1 |

## Legal Office Administration

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in a legal office, governmental agency, or private industry. This degree requires 34 units of which 29 are in required courses. An additional 4 units must be chosen from the restricted electives listed below.

Required Courses (29 units)
Units
BUS 111 F Business Communications
BUS 266 F Human Relations in Business
CIS 123AF Word Processing I
OT 080 F Keyboarding - Beginning
OT 081 F Keyboarding - Speed and Accuracy
PLEG 101 F Intro to Paralegal Studies
PLEG 104 F Legal Research and Terminology
PLEG 201 F Civil Litigation I
PLEG 202 F Civil Litigation II
PLEG 225 F Law Office Management
One of the following for a total of 3 units:
Units
CIS 100 F Intro to Personal Computers
CIS 102 F Intro to Open Source Software

| Restricted Electives (4 units) | Units |  |
| :--- | :--- | ---: |
| BUS 290 F | Managerial Communications | 3 |
| CIS 104 F | Presentation Graphics | 2 |
| CIS 105 F | Spreadsheet I | 2 |
| CIS 109 F | Personal Computer Security | 2 |
| CIS 123BF | Word Processing II | 2 |
| CIS 142 F | Database I | 2 |
| CIS 150 F | Intro to Internet | 2 |
| PLEG 105 F | Intro to Legal Writing | 3 |
| Total Units: |  | $\mathbf{3 4}$ |

## Legal Office Administration Certificate

The Legal Office Administration Certificate requires completion of 32 units of which 29 are in required courses. An additional 6 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.
Required Courses (29 units) ..... Units
BUS 111 F Business Communications ..... 3
BUS 266 F Human Relations in Business ..... 3
CIS 123AF Word Processing I ..... 2
OT $080 \mathrm{~F} \quad$ Keyboarding - Beginning ..... 1.5
OT 081 F Keyboarding - Speed and Accuracy ..... 1.5
PLEG 101 F Intro to Paralegal Studies ..... 3
PLEG 104 F Legal Research and Terminology ..... 3
PLEG 201 F Civil Litigation I ..... 3
PLEG 202 F Civil Litigation II ..... 3
PLEG 225 F Law Office Management ..... 3
One of the following for a total of 3 units: ..... Units
CIS 100 F Intro to Personal Computers ..... 3
CIS 102 F Intro to Open Source Software ..... 3
Restricted Electives (6 units) ..... Units
BUS 290 F Managerial Communications ..... 3
CIS 104 F Presentation Graphics ..... 2
CIS 105 F Spreadsheet I ..... 2
CIS 123BF Word Processing II ..... 2
CIS 142 F Database I ..... 2
CIS 150 F Intro to Internet ..... 2
PLEG 105 F Intro to Legal Writing ..... 32

## Word Processing Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/ or employment in an office where a knowledge of word processing/office technology is required. This degree requires 32 units of which 26 are in required courses. An additional 6 units must be chosen from the restricted electives listed below.

| Required Courses (26 units) |  |
| :--- | :--- |
| BUS 111 F | Business Communications |
| BUS 266 F | Human Relations in Business |
| CIS 104 F | Presentation Graphics |
| CIS 105 F | Spreadsheet I |
| CIS 107 F | Intro to Operating Systems |
| CIS 123AF | Word Processing I |
| CIS 123BF | Word Processing II |
| CIS 142 F | Database I |
| CIS 150 F | Intro to Internet |
| OT 080 F | Keyboarding - Beginning |
| OT 081 F | Keyboarding - Speed and Accuracy |

Units
BUS 111 F Business Communications 3
BUS 266 F Human Relations in Business 3
CIS 104 F Presentation Graphics 2
CIS 105 F Spreadsheet I 2
CIS 107 F Intro to Operating Systems 2
Word Processing 1 2
Word Processing II
2
2
2
1.5

Choose from the following for a total of 3 units:
Units
CIS 100 F Intro to Personal Computers or
CIS 102 F Intro to Open Source Software

## Restricted Electives (6 units) with at least one ACCT course:

ACCT 100BF Financial Accounting Principles or
ACCT 101AF Financial Accounting
BUS 290 F Managerial Communications
CIS 152 F Web Page Design II
Total Units:

## Word Processing Certificate

The Word Processing Certificate requires the completion of 35 units, of which 26 must be chosen from the required courses listed below. An additional 9 units must be chosen from the restricted electives listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

## Required Courses (26 units)

Units
BUS 111 F Business Communications
3
BUS 266 F Human Relations in Business 3
CIS 100 F Intro to Personal Computers
CIS 104 F Presentation Graphics 3

CIS 105 F Spreadsheet I 2
CIS 107 F Intro to Operating Systems 2
CIS 109 F Personal Computer Security
CIS 150 F Intro to Internet
CIS 123AF Word Processing I
2

CIS 123BF Word Processing II
OT 080 F Keyboarding - Beginning
OT 081 F Keyboarding - Speed and Accuracy

| Restricted Electives (9 units) with at least one |  |  |
| :--- | ---: | ---: |
| ACCT course: | Units |  |
| ACCT 100BF | Financial Accounting Principles | 3 |
| ACCT 101AF | Financial Accounting | 4 |
| BUS 290 F | Managerial Communications | 3 |
| CIS 142 F | Database I | 2 |
| CIS 152 F | Web Page Design II | 2 |
| CIS 205AF | Spreadsheet II | 2 |
| CIS 205BF | Macro Programming | 2 |

Total Units:

## PARALEGAL STUDIES

The Fullerton College's Paralegal Studies Program approved by the American Bar Association (ABA) offers an Associate in Science Degree and a Certificate to qualified students. The goal of the program is to educate students to become paralegals who perform effectively in a variety of legal settings and adapt to changes in the ever-evolving field of law. This program prepares the student for a career as a paralegal working under the supervision of an attorney in either the public or private sector.

The objectives of the program are as follows:

- To maintain a program that is dedicated to quality education and occupational competency for the paralegal student in the field of law;
- To ensure that students receive specific instruction and training in the skills necessary to succeed in any legal environment;
- To offer an ever-expanding curriculum which provides not only a broad understanding of the substantive law, but demonstrates and teaches the practical application of this knowledge in today's legal environment;
- To stress the importance of upholding the general principles of ethics, professional responsibility, and the prohibitions against the unauthorized practice of law;
- To periodically review and revise the curriculum in response to the recommendations of the Fullerton College Paralegal Studies' Advisory Committee, the demands of the legal community and the American Bar Association, as well as statutory provisions contained within California's Business and Professions Code;
- To provide the student with the opportunity to apply the skills and knowledge taught in the program by offering the student the ability to enroll and participate in an internship, thereby providing the student with a modicum of legal experience before entering the job market.

Students who wish to transfer course work into the Fullerton College Paralegal Studies Program from another school will be able to transfer in no more than six (6) units of legal specialty classes provided the course is the same as a course offered at Fullerton College and awards exactly the same amount of units. Students who wish to attain an Associate in Science Degree or a Certificate from Fullerton College's Paralegal Studies Program must complete the 18 units of required courses for the major at Fullerton College.

## Associate in Science Degree

The Paralegal Studies Program is approved by the American Bar Association (ABA). Curriculum leads to the Associate in Science Degree and/or employment in a paraprofessional capacity as an assistant to an attorney in private practice, in a governmental agency, or in private industry. Paralegals may perform many tasks under the supervision of a licensed attorney including preparation of forms and pleadings, interviewing clients, researching and writing legal documents, managing a law office, and preparing word processing forms and documents. This program is not intended to prepare students for the practice of law.

This degree requires 27 units, of which 18 are in required courses; an additional 9 units must be chosen from the restrictive electives listed below. A minimum grade of " $C$ " is required in each course taken. Additionally, students must achieve a minimum typing proficiency of 45 wpm before being awarded this degree. See Paralegal Studies Coordinator for more program information.

## Required Courses (18 units)

Units
PLEG 101 F Intro to Paralegal Studies
3
PLEG 104 F Legal Research and Terminology
3
PLEG 105 F Intro to Legal Writing
3
PLEG 116 F Computers in the Law Office
PLEG 201 F Civil Litigation I
3
PLEG 202 F Civil Litigation II

## Restrictive Electives (9 units)

PLEG 090 F Contemporary Issues in the Law
PLEG 203 F Personal Injury
PLEG 204 F Family Law
3

PLEG 205 F Probate, Wills and Trusts
PLEG 206 F Bankruptcy Law and Procedure
PLEG 207 F Computer-Assisted Legal Research
PLEG 208 F Workers' Compensation Law
PLEG 209 F Criminal Law and Procedure
PLEG 210 F Paralegal Internship
PLEG 211 F Real Property Law and Procedure
PLEG 212 F Medical Records Review
PLEG 213 F Employment and Labor Law
PLEG 214 F Contract Law/Procedure
PLEG 215 F Discovery in the Electronic Age
PLEG 216 F Computers in the Law Office II
PLEG 217 F Immigration Law
PLEG 218 F Entertainment and Sports Law
PLEG 219 F Intellectual Property
PLEG 220 F Elder Law
PLEG 225 F Law Office Management
Total Units:

## Paralegal Studies Certificate

The Paralegal Studies Program is approved by the American Bar Association (ABA). The Paralegal Studies Certificate will be awarded to those students possessing an Associate in Science Degree, an Associate in Arts Degree, or a Bachelor's or higher degree from a regionally-accredited college or university. All students with an Associate Degree must have their transcripts evaluated for General Education requirements for the Associate in Science Degree in Paralegal Studies.

This certificate requires the completion of 30 units of which 18 are in the required courses listed below. An additional 12 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. All required courses, and at least one half of the restricted units toward the certificate must be completed at Fullerton College. Additionally, students must achieve a minimum typing proficiency of 45 wpm before being awarded this degree. See Paralegal Studies Coordinator for more program information.

| Required Courses (18 units) | Units |  |
| :--- | :--- | ---: |
| PLEG 101 F | Intro to Paralegal Studies | 3 |
| PLEG 104 F | Legal Research and Terminology | 3 |
| PLEG 105 F | Intro to Legal Writing | 3 |
| PLEG 116 F | Computers in the Law Office | 3 |
| PLEG 201 F | Civil Litigation I | 3 |
| PLEG 202 F | Civil Litigation II | 3 |
|  |  | Units |
| Restrictive Electives (12 units) | 3 |  |
| PLEG 203 F | Personal Injury | 3 |
| PLEG 204 F | Family Law | 3 |
| PLEG 205 F | Probate, Wills and Trusts | 3 |
| PLEG 206 F | Bankruptcy Law and Procedure | 3 |
| PLEG 207 F | Computer-Assisted Legal Research | 3 |
| PLEG 208 F | Workers' Compensation Law | 3 |
| PLEG 209 F | Criminal Law and Procedure | $1-4$ |
| PLEG 210 F | Paralegal Internship | 3 |
| PLEG 211 F | Real Property Law and Procedure | 1.5 |
| PLEG 212 F | Medical Records Review | 3 |
| PLEG 213 F | Employment and Labor Law | 3 |
| PLEG 214 F | Contract Law/Procedure | 3 |
| PLEG 215 F | Discovery in the Electronic Age | 3 |
| PLEG 216 F | Computers in the Law Office II | 3 |
| PLEG 217 F | Immigration Law | 3 |
| PLEG 218 F | Entertainment and Sports Law | 3 |
| PLEG 219 F | Intellectual Property | 3 |
| PLEG 220 F | Elder Law | 3 |
| PLEG 225 F | Law Office Management | 30 |
| Total Units: |  | 3 |

PLEG 101 F Intro to Paralegal Studies 3
PLEG 104 F Legal Research and Terminology 3
PLEG 105 F Intro to Legal Writing 3
PLEG 116 F Computers in the Law Office 3
PLEG 202 F Civil Litigation II 3

Restrictive Electives (12 units) Units
PLEG 203 F Personal Injury 3
PLEG 204 F Family Law 3
PLEG 206 F Bankruptcy Law and Procedure 3
PLEG 207 F Computer-Assisted Legal Research 3
PLEG 208 F Workers' Compensation Law 3
PLEG 209 F Criminal Law and Procedure 3
PLEG 211 F Real Property Law and Procedure 3
PLEG 212 F Medical Records Review 1.5
PLEG 213 F Employment and Labor Law 3
PLEG 214 F Contract Law/Procedure 3
Discovery in the Electronic Age - 3
PLEG 217 F Immigration Law 3
PLEG 218 F Entertainment and Sports Law 3
PLEG 219 F Intellectual Property 3
PLEG 225 F Law Office Management 3
Total Units:

## PHILOSOPHY AND RELIGIOUS STUDIES

## Philosophy Associate in Arts Degree

The Philosophy Associate in Arts Degree program requires 18 units of which 15 units are required courses. An additional 3 units must be chosen from the restricted electives listed below.

| Required Courses (15 units) | Units |  |
| :--- | :--- | ---: |
| PHIL 100 F | Intro to Philosophy | 3 |
| PHIL 160 F | Intro to Ethics | 3 |
| PHIL 170 F | Logic and Critical Thinking or | 3 |
| PHIL 172 F | Critical Thinking/Writing | 3 |
| PHIL 201 F | History of Philosophy: Ancient and Medieval | 3 |
| PHIL 202 F | History of Philosophy: Modern | 3 |
|  |  |  |
| Restricted Electives (3 units) | 3 |  |
| PHIL 101 F | Intro to Religious Studies | 3 |
| PHIL 105 F | World Religions | 3 |
| PHIL 135 F | Social and Political Philosophy | 3 |
| PHIL 195 F | Women's Issues in Philosophy | 3 |
| PHIL 200 F | Intro to Christianity | 3 |
| PHIL 210 F | Intro to Judaism | 3 |
| PHIL 225 F | The American Religious Experience | 3 |
| PHIL 250 F | The Religion of Islam | 3 |
| PHIL 270 F | Intro to the Asian Religions | 3 |
| Total Units: |  | $\mathbf{1 8}$ |

## Religious Studies Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units of which 12 are in required courses. An additional 6 units must be chosen from the restricted electives listed below.

## Required Courses (12 units)

Units
PHIL 101 F Intro to Religious Studies 3
PHIL 105 F World Religions or 3
PHIL 105HF Honors World Religions 3
PHIL 200 F Intro to Christianity 3
PHIL 270 F Intro to the Asian Religions 3
Restricted Electives (6 units) Units
ENGL 243 F Folklore and Mythology ..... 3
HIST 112 F World Civilizations I ..... 3
HIST 113 F World Civilizations II ..... 3
HIST 154 F Ancient Egypt ..... 3
HIST 160AF Asia: Basic Heritage ..... 3
HIST 165 F Intro to the Middle East ..... 3
PHIL 100 F Intro to Philosophy ..... 3
PHIL 100HF Honors Intro to Philosophy ..... 3
PHIL 160 F Intro to Ethics ..... 3
PHIL 170 F Logic and Critical Thinking ..... 3
PHIL 172 F Critical Thinking/Writing ..... 3
PHIL 198AF The Holocaust ..... 3
PHIL 201 F History of Philosophy: Ancient and Medieval ..... 3
PHIL 202 F History of Philosophy: Modern ..... 3
PHIL 210 F Intro to Judaism ..... 3
PHIL 225 F The American Religious Experience ..... 3
PHIL 250 F The Religion of Islam ..... 3
Total Units: ..... 18
PHOTOGRAPHY

## Associate in Arts Degree Photography

(pending State approval)
Curriculum leads to the Associate in Arts Degree. This degree requires a total of 18 units. The degree provides a sound foundation for students interested in photography and could lead to entry-level employment with photo studios, public relation firms, advertising agencies, service bureaus, print shops, and entertainment industry.

| Required | ses (9 units) | Units |
| :---: | :---: | :---: |
| PHOT 101 F | Introduction to Photography | 3 |
| PHOT 221 F | Studio Specialties I | 3 |
| PHOT 290 F | Internship in Photography | 2-4 |
| *Students must complete a minimum of 3 units in PHOT 290 F for this degree |  |  |
| and one course (3 units) from the following: |  | Units |
| PHOT 111 F | Intro to Photography/Analog to Digital or | 3 |
| PHOT 112 F | Intro to Professional Digital Photography | 3 |
| and one course (3 units) from the following: |  | Units |
| PHOT 103 F | Intermediate Photography or | 3 |
| PHOT 216 F | Advanced Digital Photography | 3 |
| and one cou | se (3 units) from the following: | Units |
| PHOT 109 F | Portrait Photography or | 3 |
| PHOT 114 F | Professional Portrait Photography I | 3 |
| Total Units: |  | 18 |

## Professional Photography Certificate

(pending State approval)
The Photography Certificate program requires the completion of 18 units. All courses must be completed with a grade of "C" or better. This certificate is designed to prepare the student for entry-level occupational positions in photo studios, public relation firms, entertainment industry, service bureaus, print shops, and marketing firms.

## Required Courses (9 units) <br> Units

PHOT 101 F Introduction to Photography
3
PHOT 221 F Studio Specialties I
PHOT 290 F Internship in Photography
3
3
and one course ( 3 units) from the following: Units
PHOT 111 F Intro to Photography/Analog to Digital or
3
PHOT 112 F Intro to Professional Digital Photography
3
and one course ( 3 units) from the following: Units
PHOT 103 F Intermediate Photography or
3
PHOT 216 F Advanced Digital Photography
and one course ( 3 units) from the following:
PHOT 109 F Portrait Photography or
Units

PHOT 114 F Professional Portrait Photography I or
PHOT 104 F Wedding Photography
Total Units:

## PHYSICAL EDUCATION

## Associate in Arts Degree Physical Education

Curriculum leads to the Physical Education Associate in Arts Degree. This degree is designed to enable students to complete the requirements for the Associate in Arts Degree. This degree requires 18 units of which 14 units are from required courses. An additional 4 units must be chosen from the restricted electives listed below. Specifically, the degree program provides students the courses that will allow them to develop a comprehensive knowledge of the discipline of Physical Education. All courses are designed to prepare students with skills to enter the workforce.

## Associate in Science Degree Physical Education - Fitness

Curriculum leads to the Physical Education - Fitness Associate in Science Degree for employment in the fitness industry. The Fullerton College Fitness Professional Program is designed to educate students that are entering into the fitness industry or for those that are interested in coaching, exercise training, counseling and fitness training. This industry has a need for trained instructors and exercise test technicians in sports medicine clinics, health clubs, and fitness studios and in the area of coaching.

The Program requires a total of 18 units of which 13 units are in required courses. An additional 5 units must be chosen from the restricted units listed below.
Required Courses (13 Units)

Units
ANAT 231 F General Human Anatomy ..... 4
PE 154 F Fitness Testing with Exercise Prescription ..... 2
PE 235 F First Aid, CPR, and Safety Education ..... 2
PE 248 F Psychology of Sport ..... 3
WELL 200 F Applied Exercise Physiology ..... 2
Restricted Electives (5 Units) ..... Units
ACCT 001 F Accounting for Small Business ..... 3
FOOD 060 F Foods for Fitness ..... 2
PE 150 F Rhythmic Aerobic Exercise ..... 1
PE 182 F Body Building/Body Dev't. \& Weight Lifting ..... 1
PE 236 F Prevention and Care of Athletic Injuries ..... 3
WELL 020 F Fitness Assessment .....  5
WELL 230 F The Body-Mind Connection ..... 3
Total Units: ..... 18

One unit of physical education is required. (For information concerning physical education requirements, see "General Regulations.") Enrollment is limited to four semesters per sport or activity.

The University of California will accept a maximum of 4 units of physical education activity credit. Physical Education Majors see counselor for transfer unit requirements.

## Aquatic Specialist Certificate

The Aquatic Specialist Certificate program requires the completion of 20 units, 19 of which are in required courses. An addi-
Units
4
5
2
3
3
2

Units
$\frac{2-3}{18}$

## Required Courses (19 units)

Units

Total Units:
PE 236 F Prevention and Care of Athletic Injuries
PE 248 F Psychology of Sport
PE 252 F Intro to Physical Education
Restricted Electives (4 units)
PE Different Activity Courses
$\begin{array}{ll}\text { PE } 235 \text { F }^{*} & \text { First Aid, CPR, and Safety Education } \\ \text { PE } 236 \mathrm{~F} & \text { Prevention and Care of Athletic Injuries }\end{array}$
$\begin{array}{ll}\text { PE } 235 \text { F }^{*} & \text { First Aid, CPR, and Safety Education } \\ \text { PE } 236 \text { F } & \text { Prevention and Care of Athletic Injuries }\end{array}$
PE 238 F Water Safety Instruction
PE 239 F Openwater I SCUBA
PE 245 F Lifesaving, Basic Rescue/CPR
PE 199 F Physical Education Independent Study or
PE 299 F Physical Education Independent Study
PE 154 F Fitness Testing with Exercise Prescription
Physical Education Independent Study or
$1-2$
2
tional one unit must be chosen from restricted electives below;

Required Courses (14 units) Units minimum grade of "C" required.
ANAT 231 F General Human Anatomy or

ANAT 240 F Human Physiology

Restricted Elective (1 unit)

Units

PE 134 F Swimming
PE 149 F Swim for Fitness 1
PE 151 F Water Aerobics/Pool Exercise 1
PE 165 F Lifetime Fitness 1
PE 192 F Water Polo 1
PE 248 F Psychology of Sport 3
*American Red Cross certification can be substituted at the discretion of the division. Student must take an additional two units from restricted electives.

## Athletic Coach Certificate

The Athletic Coach Certificate program requires the completion of 19 units, of which 17 are in required courses. An additional two units must be chosen from the restricted electives shown below with a minimum grade of " $C$ " in each course taken.

## Required Courses (16 units)

Units
PE 235 F* First Aid, CPR, and Safety Education $2^{*}$
PE 236 F Prevention and Care of Athletic Injuries 3
PE $240 \mathrm{~F} \quad$ Sports Officiating for Men or 2
PE 241 F Sports Officiating for Women 2
PE 247 F Sports Management 3
PE 248 F Psychology of Sport 3
PE 199 F Physical Education Independent Study $\quad 1-2$
PE 299 F Physical Education Independent Study 1-2
PE 154 F Fitness Testing with Exercise Prescription 2
PE 243 F Stress Mngmt. Through Physical Activity 2

## Restricted Electives (2 units)

Units
PE 152 F ISP Fitness Training Lab (Circuit) .5-2
PE 159 F ISP Strength Training (Olympic Weights) .5-2
PE $165 \mathrm{~F} \quad$ Lifetime Fitness $\quad 1$
PE $280 \mathrm{~F} \quad$ Professional Activ. - Theory of Baseball 2
PE 281 F Professional Activ. - Theory of Basketball 2
PE 282 F Professional Activ. - Theory of Softball 2
PE 283 F Professional Activ. - Theory of Football 2
PE 284 F Professional Activ. - Theory of Soccer 2
PE 285 F Professional Activ. - Theory of Volleyball $\quad 2$
Total Units: 19
*American Red Cross certification can be substituted at the discretion of the Division. Student must take an additional two units from restricted electives.

## Group Fitness Instructor Certificate

The Group Fitness Instructor Certificate program requires a total of 19 units of which 15 units are in required courses. An additional 4 units must be chosen from the restricted units listed below.

| Required Courses: 15 Units | Units |  |
| :--- | :--- | ---: |
| NUTR 210 F | Human Nutrition | 3 |
| PE 110 F | Pilates (Alignment and Correctives) | 1 |
| PE 129 F | Step Aerobics | 1 |
| PE 130 F | Advanced Fitness Training | 2 |
| PE 150 F | Rhythmic Aerobic Exercise | 1 |
| PE 154 F | Fitness Testing w/Exercise Prescription | 2 |
| PE 235 F* | First Aid, CPR, and Safety Education | 2 |
| PE 236 F | Prevention and Care of Athletic Injuries | 3 |

*American Red Cross Certification can be substituted at the discretion of the division

Restricted Electives: (4 units) Units
PE 102 F Yoga 1
PE 147 F Relaxation and Flexibility Fitness 1
PE 151 F Water Aerobics/Pool Exercise 1
PE 161 F Body Conditioning and Fitness 1
PE 163 F Kick Boxing 1
PE 266 F Physical Fitness as a Lifelong Concept 2
WELL 230 F The Body-Mind Connection $\quad 3$
Total Units:

## Outdoor Recreation and Safety Certificate

The Outdoor Recreation and Safety Certificate program is designed to prepare students with necessary entry-level environmental knowledge, technical skill, and safety education for the foundation of employment in guided "adventure" tours or activities. The program requires a total of 15 units of which 12-13 units are in required courses. An additional 2-3 units must be completed from the restricted electives listed below. A minimum of a " $C$ " is required in all required and restricted courses.

| Required Courses (12-13 units) | Units |  |
| :--- | :--- | ---: |
| PE 122 F | Surfing | 2 |
| PE 123 F | Outrigger Canoeing | 2 |
| PE 124 F | Kayaking | 2 |
| PE 132 F | Skiing or | 1 |
| PE 133 F | Snowboarding | 1 |
| PE 235 F | First Aid, CPR, and Safety Education | 2 |
| PE 238 F | Water Safety Instruction or | 3 |
| PE 245 F | Lifesaving, Basic Rescue/CPR | 2 |
| REC 109 F | Camping \& Our Surfing Environment or | 1 |
| REC 111 F | Camping \& Our Bodyboarding Environment | 1 |


| Restricted Electives (2-3 units) |  | Units 1 |
| :---: | :---: | :---: |
| PE 132 F | Skiing |  |
|  | (if not taken as a required course) |  |
| PE 133 F | Snowboarding | 1 |
|  | (if not taken as a required course) |  |
| PE 142 F | Mountaineering/Rock Climbing | 1 |
| PE 149 F | Swim for Fitness | 1 |
| PE $199 \mathrm{~F}^{*}$ | Physical Education Independent Study | 1-2 |
| REC 105 F | Survival Arts | 1 |
| REC 107 F | Wilderness Survival | 1 |
| REC 110 F | Camping and Our Kayaking Environment | 1 |
| Total Units: |  | 15 |

*must have approval from instructor

## Personal Trainer Certificate

The Personal Trainer Certificate program requires a total of 21 units of which 17 units are in required courses. An additional 4 units must be chosen from the restricted units listed below.

## Required Courses: (17 units)

Units
ANAT 231 F General Human Anatomy or 4
BIOL 102 F Human Biology 3
BIOL 102LF Human Biology Lab 1
NUTR 210 F Human Nutrition
3
PE 154 F Fitness Testing with Exercise Prescription 2
PE 235 F* First Aid, CPR, and Safety Education 2
WELL 119 F Applied Biomechanics 2
WELL 200 F Applied Exercise Physiology 2
WELL 221 F Personal Training Internship 2
*American Red Cross certification can be substituted for PE 235 F; current card required

| Restricted Electives (4 Units) | Units |  |
| :--- | :--- | ---: |
| PE 147 F | Relaxation and Flexibility Fitness | 1 |
| PE 152 F | ISP Fitness Training Lab (Circuit) | $.5-2$ |
| PE 159 F | ISP Strength Training (Olympic Weights) | $.5-2$ |
| PE 165 F | Lifetime Fitness | 1 |
| PE 266 F | Physical Fitness as a Lifelong Concept | 2 |
| WELL 230 F | The Body-Mind Connection | 3 |
| Total Units: |  | $\mathbf{2 1}$ |

## Therapeutic and Sports Massage Therapist Level I Certificate

The Therapeutic and Sports Massage Therapist Level I Certificate program requires a total of 26 units ( 528 hours) of which are all in required courses. This certificate is designed to prepare students with the necessary entry level professional skills for employment in the field of massage therapy. All classes must be completed with a " $C$ " or better. Students must present current CPR and First Aid cards to receive certificate.

## Required Courses (26 Units) <br> Units

These courses must be taken at Fullerton College
WELL 110 F Pathology: The Massage Connection 3
WELL 230 F The Body-Mind Connection 3
WELL 232 F Basic Intro to Massage 4
WELL 233 F Intermediate Massage 3
WELL 234 F Advanced Massage 3
WELL 236 F Sports Massage 3
WELL 238 F Massage and Bodywork Lab 2
WELL 239 F Internship Massage and Bodywork 1-4
WELL 265 F Kinesiology 3
*2 units required from WELL 239 F
Total Units:
26
*Students must present current CPR and First Aid cards to receive certificate.

## Therapeutic and Sports Massage Therapist Certificate - Level II

The Therapeutic and Sports Massage Therapist Certificate - Level II program requires a total of 14 required units and 8 units from restricted electives totaling 22 units ( 474 hours). All courses must be completed with a minimum grade of "C." The two certificates together equal 1002 hours. Students must present current CPR and First Aid cards to receive certificate.

| Required Courses: (14 units) | Units |  |
| :--- | :--- | ---: |
| Completion of Technician Level I |  |  |
| BUS 180 F | Small Business Management | 3 |
| NUTR 210 F | Human Nutrition | 3 |
| WELL 239 F | Internship Massage and Bodywork | $1-4$ |
| BIOL 102 F | Human Biology | 3 |
| BIOL 102LF | Human Biology Laboratory | 1 |
| PE 236 F | Prevention and Care of Athletic Injuries | 3 |
|  |  |  |
| *1 unit required from WELL 239 F. |  |  |
| *Students must present current CPR and First Aid cards to |  |  |
| receive certificate. |  |  |

Completion of Technician Level I
BUS 180 F Small Business Management 3
NUTR 210 F Human Nutrition 3
WELL 239 F Internship Massage and Bodywork 1-4
BIOL 102LF Human Biology Laboratory 1
PE 236 F Prevention and Care of Athletic Injuries 3

| Restrictive Electives: (8 units) | Units |  |
| :--- | :--- | ---: |
| ANTH 102 F | Cultural Anthropology | 3 |
| PE 102 F | Yoga | 1 |
| PE 103 F | Aikido | 1 |
| PE 110 F | Pilates (Alignment/Correctives) | 1 |
| PE 270 F | Diet and Exercise for Athletes | 3 |
| WELL 119 F | Applied Biomechanics | 2 |
| WELL 221 F | Personal Training Internship | $1-2$ |
| WELL 239 F | Internship Massage and Bodywork | $1-4$ |
|  |  |  |
| *WELL 239 F Units earned beyond the 1 required will count |  |  |
| towards restricted electives. |  |  |

Total Units:

## PHYSICS

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units of which 12 are in required courses; an additional 6 units must be chosen from the restricted electives listed below.

| Required Courses (12 units) | Units |  |
| :--- | :--- | ---: |
| PHYS 221 F | General Physics I | 4 |
| PHYS 222 F | General Physics II | 4 |
| PHYS 223 F | General Physics III | 4 |
|  |  | Units |
| Restricted Electives (6 units) | 5 |  |
| CHEM 111AF | General Chemistry | 4 |
| CSCI 123 F | Intro to Programming Concepts in C++ | 4 |
| MATH 150AF | Calculus I | 4 |
| MATH 150BF | Calculus II | 4 |
| MATH 250AF | Intermediate Calculus | 4 |
| MATH 250BF | Linear Algebra and Differential Equations | $\mathbf{4}$ |
| Total Units: | $\mathbf{1 8}$ |  |

## POLITICAL SCIENCE

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree program requiring the completion of a total of 18 units of which 12 units are in required courses. An additional 6 units must be chosen from the restricted units listed below.

Required Courses (12 units)
Units
I. Required Class - 3 Units

POSC 100 F American Government
II. Category A - 6 Units from the following:

POSC 110 F Contemporary American Politics
3
POSC 120 F Intro to Political Theory 3
POSC 150 F California Government and Politics 3
POSC 275 F Intro to Public Law 3

| III. Category B -3 Units from the following: |  |  |
| :--- | :--- | ---: |
| POSC 200 F | Intro to the Study of Politics | 3 |
| POSC 215 F | Comparative Political Systems | 3 |
| POSC 216 F | Government and Politics in the Middle East | 3 |
| POSC 230 F | Intro to International Relations | 3 |
|  |  |  |
| Restricted Electives (6 units) | Units |  |
| Select two of the following categories and choose one class |  |  |
| from each category: |  |  |
|  |  |  |
| Category A |  | 4 |
| ETHS 101 F | American Ethnic Studies | 3 |
| ETHS 130 F | African-American History I | 3 |
| ETHS 141 F | Chicano/Chicana History | 3 |
| HIST 270 F | Women in the United States History | 3 |
| SOC 225 F | Sociology of Women |  |
|  |  | 3 |
| Category B |  | 3 |
| HIST 111 F | Western Civilization II | 3 |
| HIST 113 F | World Civilizations II | 3 |
| HIST 127 F | Survey of American History | 3 |
| HIST 152 F | Survey of British History II | 3 |
| HIST 160BF | Modern China and Japan | 3 |
| HIST 170 F | History of the United States I | 3 |
| HIST 171 F | History of the United States II | 3 |
| Category C |  | 3 |
| ANTH 102 F | Cultural Anthropology | 3 |
| GEOG 100 F | Global Geography | 3 |
| GEOG 160 F | Cultural Geography | 3 |
| GEOG 281AF | Intro to Geographic Info. Systems | 3 |
| POSC 180 F | Capital Field Trip: Sacramento Seminar | 3 |
| ECON 102 F | Principles of Economics - Macro | 3 |
| PHIL 160 F | Intro to Ethics | 3 |
| Total Units: |  | 3 |
|  |  | 3 |

## PRE-NURSING

## Natural Sciences Division

Office: Bldg 1000
714.992.7043

Dean: Bruce Cordell
Website: natsci.fullcoll.edu

## Associate in Arts Degree

The Associate in Arts Degree requires a total of 18-19 units to be chosen from the courses listed below.

| ANAT 231 F | General Human Anatomy | 4 |
| :--- | :--- | ---: |
| ANAT 240 F | Human Physiology | 5 |
| CHEM 201 F | Basic Concepts of Organic \& Biochemistry | 5 |
| MICR 220 F | Medical Microbiology or | 4 |
| MICR 262 F | General Microbiology | 5 |
| Total Units: |  | $\mathbf{1 8 - 1 9}$ |

## PRINTING TECHNOLOGY

## Associate in Science Degree

Curriculum leads to the Associate in Science Degree and/or employment in the printing industry.

Complete 24 or more units from the following list: Units

## PRNT 021 F Survey of Graphic Communications

 5-2PRNT 056 F Digital Printing 2.5
PRNT 075 F Electronic and Conventional Pre-Press 6
PRNT 085 F Intro to Flexography
4
PRNT 086 F Advanced Flexography 4
PRNT 101 F Intro to Printing
PRNT 161 F Sheeted Offset Presswork
PRNT 162 F Inter
PRT 162 F Intermediate Sheeted Offset Presswork
4
PRNT 963 F Advanced Sheeted Offset Presswork
PRNT 070 F Quick Printing and In-Plant Graphics 2-8
PRNT 072AF Photo-Silk Screen
2
PRNT 072BF Advanced Photo-Silk Screen 2
PRNT 072CF Advanced Photo-Silk Screen 2
PRNT 075 F Electronic and Conventional Pre-Press 6
PRNT 171 F Offset Presswork 7
PRNT 172 F Offset Presswork 6
PRNT 973 F Advanced Offset Presswork 6
PRNT 151 F Intro to Pre-Press 4

PRNT 152 F Intro to Electronic Pre-Press 4
PRNT 953 F Advanced Electronic Pre-Press
Total Units:

## Advanced Offset Presswork Certificate

The Advanced Offset Presswork Certificate program requires completion of 22 units of which 12-14 units are in required courses. An additional 8-10 units must be chosen from the restricted electives listed below. A minimum grade of "C" is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College. This certificate provides the skills needed to operate large offset presses and enter the commercial printing industry.

## Required Courses (12-14 units)

Units
PRNT 161 F Sheeted Offset Presswork
4
PRNT 162 F Intermediate Sheeted Offset Presswork
PRNT 963 F Advanced Sheeted Offset Presswork or PRNT 171 F Offset Presswork or
PRNT 172 F Offset Presswork
Restricted Electives (8-10 units)
PRNT 070 F Quick Printing and In-Plant Graphics
PRNT 075 F Electronic and Conventional Pre-Press
PRNT 090 F Printing Skills Lab
PRNT 101 F Intro to Printing
PRNT 130 F Graphics 2
PRNT 151 F Intro to Pre-Press
PRNT 973 F Advanced Offset Presswork
Total Units:

## Customer Service Training Certificate

The Customer Service Training Certificate requires a total of 14-15 units in required courses. This certificate provides the skills needed to operate an offset duplicator and enter the commercial printing industry.

| Required Courses (14-15 units) | Units |  |
| :--- | :--- | ---: |
| PRNT 101 F | Intro to Printing or | 3 |
| PRNT 130 F | Graphics | 2 |
| BUS 111 F | Business Communications | 3 |
| BUS 151 F | Business Mathematics | 3 |
| ART 140 F | Intro to Advertising and Graphic Design | 3 |
| ACG 100 F | Intro: Computer Graphics/MAC | 3 |
| Total Units: |  | $\mathbf{1 4 - 1 5}$ |

## Digital Printing Certificate

The Digital Printing Certificate program requires a total of 19.5 units of which 9.5 units are in required courses. An additional 10 units must be chosen from the restricted electives listed below.

| Required Courses (9.5 units) | Units |  |
| :--- | :--- | ---: |
| PRNT 056 F | Digital Printing | 2.5 |
| PRNT 070 F | Quick Printing and In-Plant Graphics | $2-8$ |
|  |  |  |
| (1st and 2nd semesters) | 3 |  |
| PRNT 101 F | Intro to Printing | Units |
|  |  | $2-8$ |
| Restricted Electives (10 units) |  |  |
| PRNT 070 F | Quick Printing and In-Plant Graphics | 6 |
|  | (3rd and 4th semesters) |  |
| PRNT 075 F | Electronic and Conventional Pre-Press | 4 |
|  | (1st semester) or | 4 |
| PRNT 151 F | Intro to Pre-Press | $\mathbf{7}$ |
| PRNT 161 F | Sheeted Offset Presswork or | $\mathbf{1 9 . 5}$ |

## Electronic Imaging Certificate

The Electronic Imaging Certificate program requires completion of 22 units of which 12 units are in required courses. An additional 10 units must be chosen from the restricted electives listed below with a minimum grade of " $C$ " in each course. At least one half of the units toward the certificate must be completed at Fullerton College. This certificate provides students with practical knowledge of the electronic imaging section of the printing industry.

## Required Courses (12 units)

PRNT 075 F Electronic and Conventional Pre-Press (1st and 2nd semesters) or
PRNT 151 F Intro to Pre-Press and Units PRNT 152 F Intro to Electronic Pre-Press and PRNT 953 F Advanced Electronic Pre-Press

| Restricted Electives (10 units) | Units |
| :--- | ---: |
| PRNT 075 F | Electronic and Conventional Pre-Press <br>  <br> (3rd semester) |
| PRNT 085 F | Intro to Flexography |$\quad 4$

## Flexography Certificate

The Flexography Certificate requires a total of 11 units in required courses. This certificate provides the skills needed to operate an offset duplicator and enter the commercial printing industry.

| Required Courses (11 units) | Units |  |
| :--- | :--- | ---: |
| PRNT 101 F | Intro to Printing | 3 |
| PRNT 085 F | Intro to Flexography | 4 |
| PRNT 086 F | Advanced Flexography | 4 |
| Total Units: | $\mathbf{1 1}$ |  |

## Graphic Communications Certificate

The Graphic Communications Certificate program requires a total of 14-15 units in required courses. This certificate provides the skills needed to enter the graphic communications industry.

| Required Courses (14-15 units) | Units |  |
| :--- | :--- | ---: |
| ART 140 F | Intro to Advertising and Graphic Design | 3 |
| ACG 100 F | Intro: Computer Graphics/MAC | 3 |
| BUS 111 F | Business Communications | 3 |
| BUS 151 F | Business Mathematics | 3 |
| PRNT 101 F | Intro to Printing or | 3 |
| PRNT 130 F | Graphics | 2 |
| Total Units: |  | $\mathbf{1 4 - 1 5}$ |

## Offset Duplicator Training Certificate

The Offset Duplicator Training Certificate requires a total of 11 units in required courses. This certificate provides the skills needed to operate an offset duplicator and enter the commercial printing industry.
Required Courses (11 units) ..... Units
PRNT 070 F Quick Printing and In-Plant Graphics ..... 2-8
PRNT 101 F Intro to Printing PRNT 101 F Intro to Printing ..... 3
BUS 051 F Basic Business Mathematics ..... 3
BUS 055 F Business English ..... 3
Total Units: ..... 11

## Printing Technology (General) Certificate

The Printing Technology (General) Certificate program requires the completion of 26 units of which 16 are in required courses. An additional 10 units must be chosen from the restricted electives listed below. A grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College. This certificate provides the student with a basic overall understanding of the printing industry and its allied fields.

| Required Courses (16 units) | Units |  |
| :--- | :--- | ---: |
| PRNT 085 F | Intro to Flexography | 4 |
| PRNT 070 F | Quick Printing and In-Plant Graphics | $2-8$ |
| PRNT 072AF | Photo-Silk Screen | 2 |
| PRNT 075 F | Electronic and Conventional Pre-Press or | 6 |
| PRNT 151 F | Intro to Pre-Press | 4 |
| PRNT 161 F | Sheeted Offset Presswork or | 4 |
| PRNT 171 F | Offset Presswork | 7 |

Restricted Electives (10 units)
Any classes offered by the Printing Department can be used for restrictive electives.
Total Units:
26

## Quick Print/In-Plant Graphics Certificate

The Quick Print/In-Plant Graphics Certificate program requires the completion of 22 units of which 8 units are in required courses. An additional 14 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College. This certificate provides the skills needed to enter the small commercial printing industry.
Required Courses (8 units) Units
PRNT 070 F Quick Printing and In-Plant Graphics (four semesters)
Restricted Electives (14 units) ..... Units
PRNT 075 F Electronic and Conventional Pre-Press ..... 6
(1st semester)
PRNT 085 F Intro to Flexography ..... 4
PRNT 090 F Printing Skills Lab ..... 5-6
PRNT 101 F Intro to Printing ..... 3
PRNT 130 F Graphics ..... 2
PRNT 151 F Intro to Pre-Press ..... 4
PRNT 161 F Sheeted Offset Presswork ..... 4
Total Units: ..... 7
22

## Screen Printing Certificate

The Screen Printing Certificate program requires the completion of 24 units of which 12 units are in required courses. An additional 12 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College. This certificate provides the skills needed to enter the screen-printing industry.

| Required Courses (12) units | Units |  |
| :--- | :--- | ---: |
| PRNT 072AF | Photo-Silk Screen | 2 |
| PRNT 072BF | Advanced Photo-Silk Screen | 2 |
| PRNT 072CF | Advanced Photo-Silk Screen | 2 |
| PRNT 075 F | Electronic and Conventional Pre-Press or | 6 |
| PRNT 151 F | Intro to Pre-Press and | 4 |
| PRNT 152 F | Intro to Electronic Pre-Press | 4 |
|  |  | Units |
| Restricted Electives (12) units | 2.5 |  |
| PRNT 056 F | Digital Printing | $2-8$ |
| PRNT 070 F | Quick Printing and In-Plant Graphics | 6 |
| PRNT 075 F | Electronic and Conventional Pre-Press |  |
|  | (2nd semester) | 3 |
| PRNT 101 F | Intro to Printing | 2 |
| PRNT 130 F | Graphics | 4 |
| PRNT 151 F | Intro to Pre-Press |  |
|  | (if not used as regular course above) | 4 |
| PRNT 161 F | Sheeted Offset Presswork | 7 |
| PRNT 171 F | Offset Presswork | $\mathbf{2 4}$ |
| Total Units: |  |  |

## PSYCHOLOGY

## Associate in Arts Degree

The Associate in Arts Degree program requires a total of 18 units of which 9 units are in required courses. An additional 9 units must be chosen from the restricted units listed below.

| Required Courses (9 units) |  | Units |
| :---: | :---: | :---: |
| PSY 101 F | General Psychology | 3 |
| PSY 161 F | Elem. Statistics in Behavioral Sciences | 3 |
| PSY 202 F | Research Methods in Psychology | 3 |
| Restricted Electives (9 units) |  | Units |
| Select three of the following categories and choose one from each category: |  |  |
| Category A: |  |  |
| PSY 139 F | Developmental Psychology: Life Cycle | 3 |
| PSY 145 F | Child Psychology | 3 |
| Category B: |  |  |
| PSY 110 F | Intro to Applied Psychology | 3 |
| PSY 219 F | The Human Services | 3 |

PSY 101 F General Psychology 3
PSY 161 F Elem. Statistics in Behavioral Sciences 3
PSY 202 F Research Methods in Psychology 3
Restricted Electives (9 units)
Units
Select three of the following categories and choose one from each category:

Category A:
PSY 139 F Developmental Psychology: Life Cycle 3
PSY 145 F Child Psychology
Category B:
PSY 110 F
The Human Services

Category C:
PSY 222 F Abnormal Psychology
PSY 251 F Social Psychology
Category D:
PSY 120 F
PSY 131 F
Human Sexuality

Total Units:

## REAL ESTATE

## Real Estate Management Associate in Science Degree

Curriculum leads to the Associate in Science Degree and prepares students for the real estate salesperson's license test and the practice of real estate. This degree requires 35-36 units following the requirements listed below. (Real Estate courses required may not be offered each semester. For information regarding course offerings, contact the Business and CIS Division Office.)

## Required Courses

All courses below are required
for a total of 18 units:

CIS 100 F Intro to Personal Computers 3
RE $101 \mathrm{~F} \quad$ Principles of Real Estate 3
RE 102 F Legal Aspects of Real Estate 3
RE 201 F Real Estate Practice 3
RE 202 F Real Estate Finance 3
RE 203 F Appraisal — Residential 3
One course from the following
for a total of 3-4 units:
ACCT 001 F Accounting for Small Business 3
ACCT 100BF Financial Accounting Principles 3
ACCT 101AF Financial Accounting 4
One course from the following
for a total of 3 units:
BUS 111 F Business Communications 3
BUS 211 F Writing for Business 3
One course from the following
for a total of 3 units:
Units
BUS 100 F Intro to Business
BUS 180 F Small Business Management
RE 207 F Mortgage Loan Brokering in California
One course from the following
for a total of 3 units:
(See counselor for determination of correct course)
BUS 240 F Legal Environment of Business
BUS 241AF Business Law

| One course from the following |  |
| :--- | ---: |
| for a total of $\mathbf{2}$ units: | Units |
| CIS 150 F | Intro to Internet |
| MKT 151 F | Internet Marketing |
|  |  |
| One course from the following for a total of $\mathbf{3}$ units: | Units |
| BUS 162 F | Business Economics |
| ECON 101 F | Principles of Economics — Micro |
| RE 206 F | Real Estate Economics |
| Total Units: | 3 |

## Real Estate Management Certificate

By completing the Real Estate Management Certificate, the student will meet the educational requirements for the Real Estate Brokers' Licensure. This certificate requires the completion of $35-36$ units following the requirements listed below. A minimum grade of " $C$ " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

## Required Courses

## All courses below are required

for a total of 18 units:
Units
CIS 100 F Intro to Personal Computers 3
RE 101 F Principles of Real Estate 3
RE 102 F Legal Aspects of Real Estate 3
RE 201 F Real Estate Practice 3
RE 202 F Real Estate Finance 3
RE 203 F Appraisal - Residential 3
One course from the following
for a total of 3-4 units:
Units
ACCT 001 F Accounting for Small Business 3
ACCT 100BF Financial Accounting Principles 3
ACCT 101AF Financial Accounting

## One course from the following

for a total of 3 units: Units
BUS 111 F Business Communications 3
BUS 211 F Writing for Business 3
One course from the following Units
for a total of 3 units:
BUS 100 F Intro to Business 3
BUS 180 F Small Business Management 3
RE 207 F Mortgage Loan Brokering in California 3
One course from the following
for a total of 3 units:
Units
(See counselor for determination of correct course)
BUS 240 F Legal Environment of Business
3
BUS 241AF Business Law

| One course from the following |  |
| :--- | ---: |
| for a total of $\mathbf{2}$ units: | Units |
| CIS 150 F | Intro to Internet |
| MKT 151 F | Internet Marketing |
|  | 2 |
| One course from the following | 2 |
| for a total of $\mathbf{3}$ units: |  |
| BUS 162 F | Business Economics |
| ECON 101 F | Principles of Economics — Micro |
| RE 206 F | Real Estate Economics |
| Total Units: |  |

## Real Estate Sales Certificate

The Real Estate Sales Certificate requires the completion of 16-17 units of which 13-14 must be chosen from the required courses listed below. An additional 3 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College. Real Estate courses required may not be offered each semester. For information regarding course offerings, contact the Business and CIS Division Office.

By completing the Real Estate Sales Certificate, the student will meet the educational requirements for the Renewable Salesperson Licensure.
Required Courses (13-14 units) ..... Units
ACCT 001 F Accounting for Small Business or ..... 3
ACCT 100BF Financial Accounting Principles or ..... 3
ACCT 101AF Financial Accounting ..... 4
CIS 050 F Web Page Design I ..... 2
CIS 150 F Intro to Internet or ..... 2
MKT 151 F Internet Marketing ..... 2
RE 101 F Principles of Real Estate ..... 3
RE 102 F Legal Aspects of Real Estate ..... 3
Restricted Electives (3 units) Units
BUS 162 F Business Economics ..... 3
ECON 101 F Principles of Economics - Micro ..... 3
RE 090 F Current Issues in Real Estate ..... 5-3
RE 201 F Real Estate Practice ..... 3
RE 202 F Real Estate Finance ..... 3
RE 203 F Appraisal - Residential ..... 3
RE 204 F Appraisal - Income ..... 3
RE 205 F Property Management ..... 3
RE 206 F Real Estate Economics ..... 3
RE 298 F Advanced Topics in Real Estate ..... 5-3

## SOCIAL SCIENCES

(pending State approval)

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 19 units chosen from the courses listed below.

| Required Courses (16 units): | Units |  |
| :--- | :--- | ---: |
| ECON 101 F | Principles of Economics — Micro or | 3 |
| ECON 101HF | Honors Principles Economics — Micro or | 3 |
| ECON 102 F | Principles of Economics - Macro or | 3 |
| ECON 102HF | Honors Principles of Economics — Macro | 3 |
| GEOG 100 F | Global Geography | 3 |
| HIST 112 F | World Civilizations I or | 3 |
| HIST 112HF | Honors World Civilizations I | 3 |
| SOC 101 F | Intro to Sociology or | 3 |
| SOC 101HF | Honors Intro to Sociology | 3 |
| SOSC 120 F | Intro to Probability and Statistics I | 4 |
|  |  |  |
| Restricted Electives (3 units): | 3 |  |
| ANTH 102 F | Cultural Anthropology | 4 |
| ETHS 101 F | American Ethnic Studies | 3 |
| HIST 113 F | World Civilizations II | 3 |
| HIST 113HF | Honors World Civilizations II | 3 |
| POSC 100 F | American Government | $\mathbf{3}$ |
| Total Units: |  | $\mathbf{1 9}$ |

## SOCIOLOGY

## Associate in Arts Degree

The Associate in Arts Degree program requires a total of 19 units of which 10 units are in required courses. An additional 9 units must be chosen from the restricted units listed below.
Required Courses (10 units): ..... Units
SOC 101 F Intro to Sociology or ..... 3
SOC 101HF Honors Intro to Sociology ..... 3
SOC 102 F Social Problems ..... 3
SOSC 120 F Intro to Probability and Statistics I ..... 4
Restricted Electives (9 units): ..... Units
SOC 133 F Intro to Gerontology ..... 3
SOC 199 F Sociology Independent Study I ..... 1
SOC 201 F Dying and Death ..... 3
SOC 225 F Sociology of Women or ..... 3
SOC 225HF Honors Sociology of Women ..... 3
SOC 275 F Marriage and Family or
SOC 275HF Honors Marriage and Family ..... 3
SOC 285 F Drugs and Society3SOC 292 FIntro to CriminologySOC 299 F Sociology Independent Study II
Total Units:33119

## SPEECH

## Associate in Arts Degree

Curriculum leads to the Associate in Arts Degree. This degree requires 18 units of which 13-15 is in required courses. An additional 3-5 units must be chosen from the restricted electives listed below.
Required Courses (13-15 units) Units
SPCH 100 F Public Speaking ..... 4
SPCH 105 F Interpersonal Communication ..... 3
PHIL 170 F Logic and Critical Thinking ..... 3
Plus select two of the following: ..... Units
CRTV 135 F Radio Announcing ..... 3
SPCH 120 F Intercultural Communication ..... 3
SPCH 124 F Small Group Communication ..... 3
SPCH 135 F Essentials of Argumentation ..... 4
SPCH 138 F Forensics ..... 1
THEA 127 F Oral Interpretation ..... 3
THEA 129 F Beginning Voice for Actors ..... 3
Restricted Electives (3-5 units) ..... Units
CRTV 118 F Intro to Radio, Television and Film ..... 3
ENGL 100 F College Writing ..... 3
THEA 100 F Intro to the Theatre ..... 3
Foreign Language (Level I through Level IV) ..... $\frac{4-5}{18}$

## THEATER ARTS (DRAMA)

## Associate in Arts Degree

This curriculum leads to an Associate in Arts Degree. The Theatre Arts Drama AA Degree program requires 18.5-24 units of which 17.5-21 units are in required courses. An additional 1-3 units must be chosen from the restricted units listed below.
Required Courses: (17.5-21 units) ..... Units
THEA 100 F Introduction to the Theatre or ..... 3
THEA 104 F Introduction to Theatre Appreciation or ..... 3
THEA 105 F Musical Theatre History or ..... 3
THEA 108 F Multicultural Perspectives/American Theatre ..... 3
THEA 120BF** Intermediate Principles of Acting ..... 3
THEA 130 F* $^{*}$ Acting Workshop or ..... 3
THEA $133 \mathrm{~F}^{*}$ Theatre Practicum or ..... 2THEA 135 F Resident Theatre Company orTHEA 136 F Touring Theater Productions3
THEA 141 F Introduction to Technical TheatreTHEA 143 F Stagecraft
THEA $144 \mathrm{~F}^{*}$ Lighting or
THEA $145 \mathrm{~F}^{*}$ Theatrical Costuming or
THEA $146 \mathrm{~F}^{*}$ Scene Painting orTHEA 147AF* Stage MakeupTHEA 149 F Stage Crew Activity0.5-3

[^3]| Restricted Electives: (1-3 units) | Units |  |
| :--- | :--- | ---: |
| THEA 075 F | Theatrical City Tours: New York | 2 |
| THEA 076 F | Theatrical City Tours: London | 2 |
| THEA 106 F | Principles of Playwriting | 3 |
| THEA 109 F | Modern Dramatic Literature | 3 |
| THEA 120CF**Advanced Principles of Acting I | 3 |  |
| THEA 121 F | Movement for Actors | 3 |
| THEA 122 F | Improvisation for Television, Film \& Theatre | 2 |
| THEA 125 F | Musical Theatre Performance Techniques | 2 |
| THEA 127 F | Oral Interpretation | 3 |
| THEA 129 F | Beginning Voice for Actors | 3 |
| THEA 142 F | Theatre Crafts Lab | $1-2$ |
| THEA 151 F | Properties: Design Construction | 3 |
| THEA 160 F | Introduction to Sound Technology | 2 |
| THEA 161 F | Sound Reinforcement Techniques | 2 |
| THEA 162 F | Sound Design for the Theatre | 3 |
| THEA 222 F***Acting for the Camera | 2 |  |
| THEA 225 F | Stage Directing | 3 |
| THEA 235 F | Experimental Theatre | 2 |
| THEA 255 F | Theatrical Costume Construction | 2 |
| THEA 265 F | Theatre Management | 2 |

**Prerequisite and co-requisite (Technical Theatre class) required
***Prerequisite required
Total Units:
18.5-24

## Assistant Costume Designer Certificate

(pending State approval)
This high level certificate provides the student with expertise in order to assist the Costume Designer in costuming for film, television, theme park entertainment and theater. The Assistant Costume Designer should be able to utilize the skills acquired in the Cutter/Draper and Stitcher certificates, be able to illustrate fashion and implement design skills and practices. This certificate is designed to provide the student with a course of study leading to certification and employment in the entertainment industry as an Assistant Costume Designer. The Assistant Costume Designer certificate program requires the completion of 40.5 to 43 units of which 34.5 to 37 units are in required courses. All courses must be completed with a grade of " C " or better.
Required Courses: (34.5-37 units) Units
ART 139 F Fashion Sketching ..... 2
FASH 101 F Clothing I ..... 2
FASH 108AF Flat Pattern Methods \& Design I ..... 2
FASH 188 F Apparel Production ..... 2
FASH 190 F Pattern Grading ..... 1
FASH 201 F Clothing II ..... 2
FASH 209AF Draping ..... 2
FASH 242 F History of Costume ..... 3
FASH 975 F Patternmaking: Collections ..... 2
THEA 100 F Introduction to the Theatre ..... 3
THEA 130 F* Acting Workshop ..... 3
THEA 133 F* Theatre Practicum ..... 2
THEA 145 F Theatrical Costuming ..... 3
THEA 147AF Stage Makeup ..... 3
THEA 149 F Stage Crew Activity ..... 0.5-3
THEA 255 F Theatrical Costume Construction ..... 2
*One semester is required - may be repeated as a restrictedelective
Restricted Electives: (6 units) ..... Units
ART 180 F Perspective Drawing \& Rendering ..... 3
ART 186AF Beginning Life Drawing ..... 3
FASH 205AF Tailoring ..... 2
FASH 206 F Textiles ..... 3
FASH 299 F Fashion Industry Internship ..... 1-4
THEA 075 F Theatrical City Tours: New York ..... 2
THEA 076 F Theatrical City Tours: London ..... 2
THEA 130 F Acting Workshop ..... 3
THEA 149 F Stage Crew Activity ..... 0.5-3
THEA 255 F Theatrical Costume Construction ..... 2
THEA 133 F Theatre Practicum ..... 240.5-43
Total Units:

## Costume Cutter/Draper Certificate

(pending State approval)
This course of study provides the student with training in order to create patterns for costumes using both flat-pattern and draping methods, in addition to cutting and assembling costumes for the entertainment industry. Students also receive training in basic theatrical production process. This certificate is designed to provide the student with a course of study leading to certification and employment in the entertainment industry as a Costume Cutter/Draper. This certificate program requires the completion of 33.5-36 units of which 27.5-30 units are in required courses. All courses must be completed with a grade of "C" or better.

| Required Courses: (27.5-30 units) | Units |  |
| :--- | :--- | ---: |
| FASH 101 F | Clothing I | 2 |
| FASH 201 F | Clothing II | 2 |
| FASH 108AF | Flat Pattern Methods and Design I | 2 |
| FASH 188 F | Apparel Production | 2 |
| FASH 190 F | Pattern Grading | 1 |
| FASH 209AF | Draping | 2 |
| FASH 242 F | History of Costume | 3 |
| THEA 100 F | Introduction to the Theatre | 3 |
| THEA 130 F | Acting Workshop | 3 |
| THEA 133 F | Theatre Practicum | 2 |
| THEA 145 F | Theatrical Costuming | 3 |
| THEA 149 F | Stage Crew Activity | $0.5-3$ |
| THEA 255 F | Theatrical Costume Construction | 2 |
|  |  |  |
| Restricted Electives: (6 units) | Units |  |
| FASH 088 F | CAD for Apparel | 2 |
| FASH 108BF | Flat Pattern Methods \& Design II | 2 |
| FASH 206 F | Textiles | 3 |
| FASH 975 F | Patternmaking: Collections | 2 |
| FASH 976 F | Adv. Patternmaking: Collections | 2 |
| THEA 149 F | Stage Crew Activity | $0.5-3$ |
| THEA 255 F | Theatrical Costume Construction | 2 |
| Total Units: |  | $33.5-36$ |

## Costume Stitcher Certificate

(pending State approval)
This course of study provides the student with training in specialized sewing techniques and other skills necessary to build a variety of costumes required by the entertainment industry. Students also receive training in basic theatrical production practices. This certificate is designed to provide students with a course of study leading to certification and employment in the entertainment industry as a Costume Stitcher. This program requires the completion of 25.5-28 units, of which 19.5-22 units are in required courses. All courses must be completed with a grade of "C" or better.

## Required Courses: (19.5-22) <br> Units

FASH 101 F Clothing I
2
FASH 188 F Apparel Production 2
FASH 201 F Clothing II 2
THEA 100 F Introduction to the Theatre 3
THEA 130 F Acting Workshop 3
THEA 133 F Theatre Practicum 2
THEA 145 F Theatrical Costuming 3
THEA 149 F Stage Crew Activity 0.5-3
THEA 255 F Theatrical Costume Construction

| Restricted Electives: (6 units) | Units |  |
| :--- | :--- | ---: |
| FASH 045 F | Swim and Active Wear | 1 |
| FASH 080AF | Designing and Sewing Leather | 2 |
| FASH 085 F | Bridal and Special Occasion Wear | 2 |
| FASH 090 F | Creative Serging: Overlock Machines | 2 |
| FASH 205AF | Tailoring | 2 |
| FASH 975 F | Patternmaking: Collections | 2 |
| FASH 976 F | Adv. Patternmaking: Collections | 2 |
| THEA 149 F | Stage Crew Activity | $0.5-3$ |
| THEA 255 F | Theatrical Costume Construction | 2 |
| Total Units: | $\mathbf{2 5 . 5 - 2 8}$ |  |

## Costume Wardrobe Certificate

This course of study provides the student with the practical knowledge and experience necessary to work backstage preparing, changing and maintaining costumes before and during performances. Students are trained in basic costume techniques as well as basic theatrical production practices. This certificate is designed to provide the student with a course of study leading to certification and employment in the entertainment industry working in the area of Wardrobe. This program requires the completion of 23.5-26 units of which 19.5-22 units are in required courses. All course work must be completed with a grade of " $C$ " or better.

| Required Courses: (19.5-22 units) | Units |
| :--- | ---: |
| FASH 101 F | Clothing I |
| THEA 100 F | Introduction to the Theatre |
| THEA 145 F* | Theatrical Costuming |
| THEA 149 F | Stage Crew Activity |
| THEA 130 F | Acting Workshop |
| THEA 133 F | Theatre Practicum |
| THEA 147AF | Stage Makeup |
|  | 6 |
| Restricted Electives: (4 units) | 3 |
| FASH 201 F | Clothing II |
| THEA 130 F | Acting Workshop |
| THEA 133 F | Theatre Practicum |
| THEA 149 F | Stage Crew Activity |
| THEA 255 F | Theatrical Costume Construction |
| Total Units: |  |2

THEA 100 F Introduction to the Theatre ..... 3
Theatrical Costuming0.5-3
THEA 130 F Acting Workshop ..... 3
The 133 F Theare Practicum3
Restricted Electives: (4 units)2
THEA 130 F Acting Workshop2THEA 255 F Theatrical Costume Construction23.5-26

## Lighting Technician Certificate

The Lighting Technician Certificate is designed to prepare the student for occupational competency as a Lighting Technician in education, community and resident theatre venues as well as theme parks, television and motion picture studios. This certificate program requires a total of 23.5-26 units of which 17.5-20 units are in required courses. All courses must be completed with a grade of "C" or better.

| Required Courses (17.5-20 units) | Units |  |
| :--- | :--- | ---: |
| ART 110 F | Introduction to Art | 3 |
| THEA 100 F | Intro to the Theatre | 3 |
| THEA 130 F | Acting Workshop | 3 |
| THEA 133 F | Theatre Practicum | 2 |
| THEA 141 F | Introduction to Technical Theatre | 3 |
| THEA 144 F | Lighting | 3 |
| THEA 149 F | Stage Crew Activity | $.5-3$ |
|  |  | Units |
| Restricted Electives (6 units) | 3 |  |
| ACG 106 F | Introduction: Dimensional Design/MAC | 3 |
| DANC 120 F | Dance History | 3 |
| DRAF 171 F | Fundamentals of Drafting | 3 |
| IDES 210 F | Fundamentals of Lighting | 3 |
| MUS 116 F | Music Appreciation | 3 |
| MUS 118 F | Intro to Opera | $\mathbf{3}$ |
| Total Units: |  | $\mathbf{2 3 . 5 - 2 6}$ |

## Musical Theatre Certificate

The Musical Theatre Certificate program totals 25 units of which 23 are in required courses. An additional 2 units must be chosen from the restricted electives shown below.

| Required Courses (23 units) | Units |  |
| :--- | :--- | ---: |
| DANC 105 F | Ballet I | 1 |
| DANC 111 F | Jazz I | 1 |
| DANC 113 F | Tap Dance I | 1 |
| MUS 104AF | Beginning Musicianship and | 1 |
| MUS 104BF | Intermediate Musicianship | 1 |
| MUS 135AF | Beginning Piano and | 1 |
| MUS 135BF | Piano or equal units in MUS 236 F or | 1 |
| MUS 237 F | 1 unit (if qualified) (2 semesters) |  |
| MUS 126 F | 1 unit or equal units in MUS 227 F or |  |
| MUS 228 F | 1 unit (if qualified) (two semesters) |  |
| THEA 120AF | Beginning Principles of Acting and | 3 |
| THEA 120BF | Intermediate Principles of Acting | 3 |
| THEA 121 F | Movement for Actors | 3 |
| THEA 125 F | Musical Theatre Performance Techniques | 2 |
| THEA 133 F | Theatre Practicum | 2 |
|  |  |  |
| Restricted Courses (2 units) | Units |  |
| MUS 180 F | Collegiate Chorale | 1 |
| MUS 281 F | Concert Choir | 1 |
| MUS 282 F | Fullerton College Master Chorale | 1 |
| THEA 075 F | Theatrical City Tours: New York | 2 |
| THEA 076 F | Theatrical City Tours: London | 2 |
| Total Units: |  | $\mathbf{2 5}$ |

## Advanced Musical Theatre Certificate

The Advanced Musical Theatre Certificate program requires a total of 28 units listed below. Completion of the Musical Theatre Certificate program is required before the Advanced Musical Theatre Certificate will be granted.
Required Courses: (28 units) Units
DANC 105 F Ballet I and ..... 1
DANC 113 F Tap Dance I and ..... 1
DANC 114 F Tap Dance II and ..... 1
DANC 111 F Jazz I and ..... 1
DANC 119 F Dance for Theatre ..... 1
MUS 135AF Beginning Piano and ..... 1
MUS 135BF Piano and ..... 1
MUS 236 F Intermediate Piano and ..... 1
MUS 237 F Advanced Piano ..... 1
MUS 227 F Intermediate Voice and ..... 1
MUS 126 F Beginning Voice and ..... 1
MUS 228 F Advanced Voice ..... 1
MUS 288 F Bravo Song/Dance Ensemble ..... 1
THEA 105 F Musical Theatre History ..... 3
THEA 133 F Theatre Practicum ..... 2
THEA 143 F Stagecraft ..... 3
THEA 147AF Stage Makeup ..... 3
THEA 150 F Performance Laboratory ..... 2
THEA 225 F Stage Directing ..... 2
Total Units:28

## Scenic Artist Certificate

The Scenic Artist Certificate is designed to prepare the student for occupational competency as a Scenic Artist in educational, community and resident theatre venues as well as theme park, television and motion pictures studios. This certificate program requires a total of 24.5-29 units of which 19.523 units are in required courses. All courses must be completed with a grade of " $C$ " or better.
Required Courses: (19.5-23 units) ..... Units
ART 118 F Color Theory ..... 3
ART 182 F Basic Drawing ..... 3
THEA 100 F Introduction to the Theatre ..... 3
THEA 141 F Introduction to Technical Theatre ..... 3
THEA 142 F Theatre Crafts Lab ..... 1-2
THEA 143 F Stagecraft ..... 3
THEA 146 F Scene Painting ..... 3
THEA 149 F Stage Crew Activity ..... 0.5-3
Restricted Electives: (5-6 units) ..... Units
ART 110 F Introduction to Art ..... 3
ART 180 F Perspective Drawing and Rendering ..... 3
ART 189AF Beginning Painting ..... 3
ART 197 F Mural and Faux Painting ..... 3
THEA 151 F Properties: Design Construction ..... 3
Total Units: ..... 24.5-29

## Sound Technician Certificate

The Sound Technician Certificate is designed to prepare the student for occupational competency as a sound technician in educational, community and resident theatres as well as theme parks, television and motion picture studios. This certificate program requires a total of 25-27 units of which 20-21 units are in required courses. All courses must be completed with a grade of " $C$ " or better.

## Required Courses: (20-21 units)

Units
MUS 101 F Music Fundamentals or 3
MUS 106 F Intro to Music Theory or 3
MUS 108 F Intro to Music Technology 2
THEA 100 F Introduction to the Theatre 3
THEA 130 F Acting Workshop 3
THEA 133 F Theatre Practicum 2
THEA 141 F Introduction to Technical Theatre 3
THEA 160 F Introduction to Sound Technology 2
THEA 161 F Sound Reinforcement Techniques 2
THEA 162 F Sound Design for the Theatre 3
Restricted Electives: (5-6 units)
Units
CRTV 122 F Audio Production Techniques 3
MUS 124 F Recording Studio I 3
MUS 224 F Recording Studio II 3
THEA 136 F Touring Theater Productions 2
THEA 137 F Summer Theatre Workshop 3
Total Units:

## Stage Management Certificate

The Stage Management Certificate is designed to prepare the student for occupational competency as a State Manager in educational, community and resident theatre venues as well as theme park, television and motion picture studios. This certificate program requires a total of 27.5-30 units of which 21.524 units are in required courses. All courses must be completed with a grade of " $C$ " or better.

## Required Courses (21.5-24 units)

Units
ART 110 F Introduction to Art 3
MUS 116 F Music Appreciation 3
THEA 100 F Intro to the Theatre 3
THEA 130 F Acting Workshop 3
THEA 133 F Theatre Practicum 2
THEA 141 F Introduction to Technical Theater 3
THEA 149 F Stage Crew Activity .5-3
THEA 265 F Theatre Management 2
THEA 900 F Stage Management 2
Restricted Electives (6 units) ..... Units
BUS 262 F Principles of Management ..... 3
CIS 111 F Intro to Information Systems ..... 3
MUS 101 F Music Fundamentals ..... 3
MUS 116 F Music Appreciation ..... 3
MUS 118 F Intro to Opera ..... 3
THEA 104 F Intro to Theatre Appreciation ..... 3
THEA 136 F Touring Theater Productions ..... 2
THEA 137 F Summer Theatre Workshop ..... 3
THEA 235 F Experimental Theatre ..... 2
Total Units: ..... 27.5-30

## Technical Theatre Certificate

The Technical Theatre Certificate is designed to prepare the student for occupational competency as a theatre technician in educational, community and resident theatre venues as well as theme parks, television and motion picture studios. This certificate program requires a total of 27.5-32 units of which 22.526 units are in required courses. All courses must be completed with a grade of " $C$ " or better.
Required Courses: (22.5-26)THEA 100 F Introduction to the Theatre3
THEA 133 F Theatre Practicum ..... 2
THEA 141 F Introduction to Technical Theatre ..... 3
THEA 142 F Theatre Crafts Lab ..... 1-2
THEA 143 F Stagecraft ..... 3
THEA 149 F Stage Crew Activity ..... 0.5-3
THEA 144 F Lighting ..... 3
THEA 160 F Introduction to Sound Technology ..... 2
THEA 161 F Sound Reinforcement Techniques ..... 2
THEA 162 F Sound Design for the Theatre ..... 3
Restricted Electives: (5-6 units) ..... Units
ART 110 F Introduction to Art ..... 3
DRAF 171 F Fundamentals of Drafting ..... 3
THEA 151 F Properties: Design Construction ..... 3
WELD 121AF Introduction to Welding ..... 2WOOD 110 F Fundamentals of Woodwork
Total Units: ..... 27.5-32

## Theatrical Costumer Certificate

The Theatrical Costumer Certificate requires the completion of 34 units of which 28 units are in required courses. An additional 6 units must be chosen from the restricted electives listed below. This certificate leads to employment with regional theatre and performing groups as a technician.

| Required Courses (28 units) | Units |  |
| :--- | :--- | ---: |
| ART 139 F | Fashion Sketching | 2 |
| FASH 101 F | Clothing I | 2 |
| FASH 108AF | Flat Pattern Methods and Design I | 2 |
| FASH 188 F | Apparel Production | 2 |
| FASH 190 F | Pattern Grading | 1 |
| FASH 206 F | Textiles | 3 |
| FASH 209AF | Draping | 2 |
| FASH 242 F | History of Costume | 3 |
| THEA 100 F | 3 units |  |
| THEA 145 F | 3 units (1st semester) |  |
| THEA 149 F | 1 unit |  |
| THEA 255 F | 2 units (1st and 2nd semesters) |  |
|  |  | 2 |
| Restricted Electives (6 units) | 3 |  |
| FASH 085 F | Bridal and Special Occasion Wear | 2 |
| FASH 107 F | Apparel Analysis | 2 |
| FASH 108BF | Flat Pattern Methods and Design II | 2 |
| FASH 186 F | Workroom Sketching | 2 |
| FASH 205AF | Tailoring | 2 |
| FASH 244 F | Ethnic Costume | 2 |
| THEA 075 F | Theatrical City Tours: New York | 3 |
| THEA 076 F | Theatrical City Tours: London | 3 |
| THEA 145 F | Theatrical Costuming (2nd semester) | 3 |
| THEA 147AF | Stage Makeup | 3 |
| Total Units: |  |  |

## Advanced Theatrical Costumer Certificate

In addition to the basic 34 unit requirements of the Theatrical Costumer Certificate, the student must complete 19 more units for an Advanced Theatrical Costumer Certificate, 13 of which are in required courses and an additional 6 units restricted electives.

Required Courses (13 units)
Units
FASH 085 F Bridal and Special Occasion Wear 2
FASH 107 F Apparel Analysis
3
FASH 108BF Flat Pattern Methods and Design II
FASH 244 F Ethnic Costume
FASH 297 F Fashion Design Portfolio
THEA 147AF Stage Makeup
Restricted Electives (6 units)
Units
FASH 186 F Workroom Sketching
FASH 201 F Clothing II
FASH 205AF Tailoring
THEA 255 F Theatrical Costume Construction (3rd semester)
Total Units:

Participation in at least one production is required of each theatre arts major each semester. During residency at Fullerton College, all theatre arts majors are required to perform in as many areas of production as possible. Recommendations by staff for the theatre arts major will be based upon the satisfactory fulfillment of above requirements.

Cost of Classes: Most Theatre Art classes require that equipment and supplies be purchased or supplied by students. The cost of basic materials necessary to begin a class, if the student has none to begin with, is between $\$ 5$ and $\$ 50$ unless otherwise specified in the course description. Equipment can usually be used in several related classes and need not be duplicated for each class.

## WELDING

## Welding Technology Certificate

The Welding Technology Certificate program requires the completion of not less than 24 units of which 19 units are in required courses. An additional 5 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.
Required Courses (19 units) ..... Units
WELD 091AF Industrial Welding Fundamentals or ..... 5
WELD 121AF Intro to Welding and ..... 2
WELD 121BF Fundamentals of Inert Gas Welding ..... 2
WELD 091BF Semi-Automatic Welding Applications ..... 5
WELD 091CF Manual Arc Welding Fundamentals ..... 5
WELD 091DF Structural Welding Certification ..... 5
Restricted Electives (5 units) Units
DRAF 070 F Blueprint Reading for the Metal Trades ..... 2
DRAF 171 F Fundamentals of Drafting ..... 2
MACH 116 F Machine Tools ..... 2
METL 192 F Fundamentals of Metallurgy ..... 3
TECH 081 F Technical Mathematics I ..... 3
TECH 108 F Manufacturing Processes ..... 3Total Units:24


## WOOD TECHNOLOGY

## Cabinetmaking and Millwork Technology Certificate

The Cabinetmaking and Millwork Technology Certificate requires the completion of 35 units of which 26 units are in required courses. An additional 9 units must be chosen from the restricted electives listed below. A minimum grade of " C " is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Required Courses: (26 units)
Units
CSTR 102 F Residential Finish Carpentry 4
WOOD 012 F Cabinetmaking/Millwork 4
WOOD 014 F Cabinetmkg/Millwork (House Project) 4
WOOD 016 F Machine Woodworking/Furniture 4
WOOD 018 F Advanced Machine Woodworking/Furniture 4
WOOD 025 F Cabinet Vision/Planit Solutions 2
WOOD 110 F Fundamentals of Woodwork 4
Restricted Electives: (9 units) Units
BUS 180 F Small Business Management 3
BUS 241AF Business Law 3
CSTR 110 F Residential Estimating 3
IDES 110 F Beginning Drafting for Interior Design 3
IDES 180 F History of Interior Architecture I 3
IDES 190 F History of Interior Architecture II 3
PE 235 F First Aid, CPR, \& Safety Education 2
PHOT 101 F Introduction to Photography 3
TECH 127 F Industrial Safety 1
WOOD 013 F Introduction to 32mm Cabinetmaking 4
WOOD 032 F Advanced Skills Lab 0.5-4
Total Units:

## Wood Technology: Cabinetmaking Specialist Certificate

The Wood Technology: Cabinetmaking Specialist Certificate requires a total of 18 units. All 18 units must be taken from the list of required courses below, and a minimum grade of " C " is required each course taken. This certificate is designed to provide the skills and practical experience for the student who wishes to specialize in cabinetmaking.
Required Courses (18 units) Units
WOOD 110 F Fundamentals of Woodwork ..... 4
WOOD 012 F Cabinetmaking/Millwork ..... 4
WOOD 013 F Introduction to 32 mm Cabinetmaking ..... 4
WOOD 014 F Cabinetmaking/Millwork (House Project) or ..... 4
WOOD 015 F 32 mm Cabinetmaking/Millwork-House ProjectWOOD 025 F Cabinet Vision/Planit Solutions2
Total Units:18

## Wood Technology: Furniture Making Specialist Certificate

The Wood Technology: Furniture Making Specialist Certificate requires a total of 18 units. All 18 units must be taken from the list of required courses below, and a minimum grade of "C" is required each course taken. This certificate is designed to provide the skills and practical experience for the student who wishes to specialize in furniture making.
Required Courses: (18 units) ..... Units
WOOD 016 F Machine Woodworking/Furniture ..... 4
WOOD 018 F Advanced Machine Woodworking/Furniture ..... 4
WOOD 017 F Table Construction or ..... 4
WOOD 019 F Chair Construction ..... 4
WOOD 021 F Tool and Jig Production ..... 2
WOOD 110 F Fundamentals of Woodwork ..... 4
Total Units: ..... 18
Wood Technology: Woodcarving Specialist Certificate

The Wood Technology: Woodcarving Specialist Certificate requires a total of 8 units. All 8 units must be taken from the list of required courses below, and a minimum grade of " C " is required each course taken. This certificate is designed to provide the skills and practical experience for the student who wishes to specialize in woodcarving.

| Required Courses (8 units) | Units |
| :--- | ---: |
| WOOD 041 F Intro to Woodcarving | 2 |
| WOOD 042 F Intermediate Woodcarving | 2 |
| WOOD 043 F Advanced Woodcarving | 2 |
| WOOD 044 F In-the-Round Woodcarving | 2 |
| Total Units: | $\mathbf{8}$ |



## Course Descriptions

NOTE: This publication must be prepared well in advance of the time period it covers; therefore, changes in some programs and policies may occur. Courses as described are subject to change without notice, and some listed courses are not offered each year. In addition, some courses or programs that are offered may have to be canceled because of insufficient enrollment, elimination, or reduction in programs or for any other reason considered sufficient by the College president or designee.

All courses meet the standards and criteria for courses and classes set forth in the California Education Code Title V regulations, Section 55002 and 55806.

Courses fall into one of two categories: (1) an associate degree credit course or (2) a course.

An associate degree credit course is a course which has been designated as college level, which is appropriate to the associate degree in accordance with the requirements of Section 55805.5 and "which has been recommended by the college and/or district curriculum committee and approved by the district governing board as a collegiate course meeting the needs of the students eligible for admission."

Only courses that conform to the standards specified in Section 55002 and that fall into the following categories may be offered for associate degree credit:

1. All lower division courses accepted toward the baccalaureate degree by the California State University or University of California or designed to be offered for transfer.
2. Courses that apply to the major in non-baccalaureate occupational fields.
3. English courses not more than one level below the first transfer level composition course, typically known as English 1A or English 100. Each student may count only one such course as credit toward the associate degree.
4. All mathematics courses above and including Intermediate Algebra.
5. Credit courses in English and mathematics taught in or on behalf of other departments and which, as determined by the local board of trustees require entrance skills at a level equivalent to those necessary for the courses specified in subsections (3) and (4).

Non-degree credit courses are courses that earn credit but are not counted toward the 60 units required for the associate degree. Non-degree courses are intended to assist students in performing the skills needed for college level courses. Nondegree courses do apply toward: residency, athletic eligibility, work study and financial aid, veterans benefits, associated student body office, and full-time status.

## Course Numbering System Defined

Each course is designated by a number, the first number on the line. A descriptive title and the units allowed for the course follow the course number.

The following numbering system governs the applicability of courses toward completion of programs:

100-299 Courses numbered 100 and above are parallel to baccalaureate-level courses and, as such, are offered for transfer to colleges and universities. The California State University system accepts all courses in this number category for credit. The University of California system accepts only those courses that are also designated "UC" to the University of California system. Those courses that are not marked "UC" are not transferable to the University of California system.

As a general rule, numbers 200-299 are used to designate higher level courses and usually require introductory courses as prerequisites.

To expedite transfer acceptance, articulation agreements have been negotiated with several nearby institutions and the student is advised to consult his/her counselor to ensure proper transfer and acceptance of earned credits.

198 A-Z Special Topics Courses formerly known as 198 Special Topics will now be designated Special Topics 198 A-Z. These courses are designed to allow faculty to teach transfer level courses in their particular areas of interest and expertise. These courses can also address special interests and needs of students. The letter following the 198 does not represent repeatability but rather identifies each unique course with a specific title.

900 Courses numbered 900 are unique and currently do not have equivalent lower division courses offered at a California State University or University of California. However, these courses typically have the rigor and content of baccalaureate level courses. The transferability will be determined by the receiving institution. Students are advised to keep their syllabi and all assignments and work completed in class as a means to verify course content. Course outlines are available from the Fullerton College Office of Academic Services.

001-099 Courses numbered less than 100 are not designed for transfer. Courses numbered 001-099 are precollegiate, occupational and/or technical. Some of these courses are college preparatory. Course content is related to both skill development and acquisition of knowledge. Several courses that are typically intended for certificate and associate degree programs are included in this category. Occasionally these courses are accepted for transfer credit by four-year institutions. The determination of acceptance of these courses will be made by the receiving institution.

## Course Prefixes

| ACCT | Accounting |
| :--- | :--- |
| ACG | Art Computer Graphics |
| AJ | Administration of Justice |
| ANAT | Anatomy and Physiology |
| ANTH | Anthropology |
| ARAB | Arabic |
| ARCH | Architecture |
| ART | Art |
| AUTO | Automotive |
| BIOL | Biology |
| BUS | Business Management |
| CDES | Child Development and Education Studies |
| CHEM | Chemistry |
| CHIN | Chinese |
| CIS | Computer Information Systems |
| CISG | Computer Information Systems - Gaming |
| COSM | Cosmetology |
| COUN | Counseling and Guidance |
| CRTV | Cinema-Radio-Television |
| CSCI | Computer Science |
| CSTR | Construction Technology |
| DANC | Dance |
| DRAF | Drafting Technology |
| ECON | Economics |
| ELEC | Electronics |
| ENGL | English |
| ENGR | Engineering |
| ENVS | Environmental Sciences |
| ESC | Earth Sciences |
| ESL | English as a Second Language |
| ET | Environmental Technology |
| ETHS | Ethnic Studies |
| FASH | Fashion |
| FOOD | Foods |
| FREN | French |
| GEOG | Geography |
| GERM | German |
| HED | Health Education |
| HIST | History |
| HORT | Horticulture |
| HUM | Humanities |
| IDES | Interior Design |
| ITAL | Italian |
| JAPN | Japanese |
|  |  |


| JOUR | Journalism |
| :--- | :--- |
| LIB | Library |
| MACH | Machine Technology |
| MATH | Mathematics |
| METL | Metallurgy |
| MICR | Microbiology |
| MKT | Marketing Management |
| MUS | Music |
| NUTR | Nutrition |
| OT | Office Technology |
| PE | Physical Education |
| PHIL | Philosophy and Religious Studies |
| PHOT | Photography |
| PHSC | Physical Sciences |
| PHYS | Physics |
| PLEG | Paralegal Studies |
| PORT | Portuguese |
| POSC | Political Science |
| PRNT | Printing Technology |
| PSY | Psychology |
| RE | Real Estate |
| READ | Reading |
| REC | Recreation |
| RUSS | Russian |
| SOC | Sociology |
| SOSC | Social Sciences |
| SPAN | Spanish |
| SPCH | Speech |
| STSV | Student Support Services |
| TECH | Technology-Related Courses |
| THEA | Theatre Arts |
| VIET | Vietnamese |
| WELD | Welding |
| WELL | Wellness |
| WKEX | Work Experience |
| WMNS | Women's Studies |
| WOOD | Wood Technology |
|  |  |

## Course Prerequisite, Corequisite, Advisory

- Prerequisite When a course has a "prerequisite," it means that a student must have certain documentable skills and/or knowledge before entering the course. This knowledge is considered necessary for a student to succeed in the course. The prior knowledge may be a skill (type 35 words per minute), some experience (has worked as a tax preparer), an ability (speaks and writes Spanish fluently), a test score (475 on the SAT Verbal Examination), or successful completion of a prior course (ENGL 060 F with a grade of Pass [P]). The student must complete the prerequisite successfully, with a grade of " P " or " C " or better, before enrolling in the course; "D," "F" or "NP" grades are not acceptable.
- Corequisite A "corequisite" is just like a prerequisite (see above) with this exception: a student may take the corequisite concurrently with the course for which it is required. For example, with many lab courses in the sciences, students may take the required lecture course either prior to the lab or concurrently with it. When dropping or withdrawing from a course that has a corequisite, both courses must be dropped or withdrawn concurrently.
- Advisory When a course has "advisory," it means that certain preparation is recommended before a student enters the course. The preparation is considered advantageous for a student to succeed in the course. Since the preparation is recommended, the student is advised, but not required, to meet the condition before or in conjunction with enrollment in the course or educational program. For example, an introductory course in design concepts is advised to help give students the skills to succeed in more specialized art courses.
- Challenges or Exceptions Prerequisites and corequisites for all courses will be listed in the college catalog under the entry for each class. Students are obligated to know and meet prerequisites and corequisites. Prerequisites and corequisites will be enforced, and students may be required to show proof of having met them. Challenges and exceptions may be granted only if students follow the appropriate challenge procedures. These procedures are found in the "Matriculation" section of the catalog. Students should go to the Counseling/Matriculation Office for copies of procedures and forms.


## Credit Values

The number in parentheses following the title of the course is the semester credit value of the course.

## Definition of Unit

Coursework at Fullerton College is measured in terms of semester units. A one-unit course requires a minimum of 48 hours of lecture, study and/or lab work on a semester system.

## Open Enrollment Policy

It is the policy of the 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(s) and who meets such prerequisites as may be established pursuant to Chapter 11 Division Two Part VI, Title 5 of the California Administrative Code, commencing with Section 51820.

## Repeatable Activity Courses

A student may enroll more than once in an activity, performance, and/or studio art course that is designated as repeatable in the schedule or catalog. Courses that have a designated skills level (beginning, intermediate, advanced) may be taken for a combined total of four times. Example: A student who has taken beginning volleyball three times and intermediate volleyball once has completed the maximum number of repetitions allowed for the course, despite the different skills level.

## Transfer Designation

All courses marked UC are transferable to the campuses of the University of California system. All courses with numbers of 100 and higher are transferable to the campuses of the California State University system. Those courses that are not marked UC are not transferable to the University of California campuses.

UC Credit Limitation indicates that there is a total maximum credit limitation of several courses. Students need to see the articulation agreement/counselor to determine the specific limitation.

In order to determine if a specific course meets a general education/breadth transfer requirement at a specific institution or if a course meets a specific major requirement at a transfer institution, students are advised to confer with their counselor regarding the transferability of the course to a particular college or university.

Some courses are marked by the following codes, they are defined as follows:
\(\left.$$
\begin{array}{rl}\text { AA GE }= & \begin{array}{l}\text { These courses meet the Fullerton College } \\
\text { General Education Requirement for the } \\
\\
\text { Associate degree }\end{array}
$$ <br>
CSU GE= \& These courses meet the lower division <br>
General Education requirements to the <br>

California State University (CSU) System.\end{array}\right\}=\)| These courses meet the lower division |
| :--- |
| IGETCGeneral Education requirements to <br> either the University of California (UC) or <br>  <br> California State University (CSU) System. |
| MULT CULT REQ =Courses marked MULT CULT REQ, <br> beginning Fall semester 1996 meet the <br> Multicultural Education Requirement for <br> the Associate degree. |

## Accounting (ACCT)

## Business/CIS Division

Office: Bldg 300
714.992.7032

Dean: Ann Hovey
Website: http://bizdiv.fullcoll.edu

## Associate in Science Degree <br> Accounting Certificate

## Accounting Courses

## ACCT 001 F Accounting for Small Business (3)

Three hours lecture per week. This course is ideal for the student who wishes to attain a solid foundation in the basic fundamentals of accounting. This includes business students who are planning more advanced studies of accounting and business at four-year institutions, as well as students who desire knowledge in accounting for small businesses, but do not necessarily intend to major in accounting or transfer to a four-year university. Topics include fundamentals of double entry journals; preparation of trial balances; worksheets and simple financial statements for service or retail types of businesses; use of controlling accounts; special journals; cash journals; accrual and cash basis accounting; cash controls and bank reconciliation; payroll accounting including employee earnings and deductions and employer's taxes and payments. (Degree Credit)

## ACCT 011 F Payroll Accounting (2)

Prerequisite: ACCT 100AF or ACCT 101AF
Three hours of lecture per week. This course is designed to provide an overview of social security, state and federal payroll taxes. The course is of a non-technical nature and is intended to give business students a practical working knowledge of the current tax laws and actual experience in applying the regulations. (Degree Credit)

## ACCT 090 F Current Topics in Taxation (.5-3)

Variable hours of lecture and/or lab. This course offers timely and contemporary income tax law-related topics designed to enhance job skills, expand the student's knowledge of the most current tax practice environment, and increase employment opportunities. Unit credit may vary in any given semester. Consult the class schedule to verify specific topics and credit offered in a particular semester. May be taken for credit four times. (Degree Credit)

## ACCT 100AF Financial Accounting Principles (3)

Four hours lecture per week. This course is the first part of a two-part financial accounting course that is equivalent to ACCT 101AF after the completion of ACCT 100AF and ACCT 100BF. This course covers the entire accounting cycle, cash, bank reconciliations, receivables, temporary investments, and incorporates a practical approach with the use of business papers and computer applications integrated into the homework. Not open to students who have completed ACCT 101AF with a grade of "C" or better. (CSU) (UC Credit Limitation) (Degree Credit)

## ACCT 100BF Financial Accounting Principles (3)

Prerequisite: ACCT 100AF with a grade of " $C$ " or better
Four hours lecture per week. This course is a continuation of 100AF Financial Accounting Principles with emphasis on the basic concepts of accounting for plant assets, intangible assets, payroll, notes payable and other liabilities, partnerships and corporations, long term liabilities and investments in bonds, inventories, statement of cash flow, and analysis of financial statements. The practical approach is continued with the use of business papers and computer applications integrated into the homework. Upon completion of this course, the student will have fulfilled the equivalent of ACCT 101AF requirement. Not open to students who have completed 101AF with a grade of "C" or better. (CSU) (UC Credit Limitation) (Degree Credit)

## ACCT 101 AF Financial Accounting (4)

Five hours lecture per week. A course in beginning accounting meeting all transfer requirements to most four-year colleges and universities and providing a foundation for advanced work in vocational accounting or in other branches of business administration. This course covers accounting concepts and techniques fundamental to the administration of a business enterprise by analyzing and recording financial transactions, measuring and communicating economic information and the preparing, analyzing and interpreting of financial statements. Computer applications are integrated into the homework. This course is required of all accounting and business administration majors. (CSU) (UC) (Degree Credit)

## ACCT 101 BF Managerial Accounting (4)

Prerequisite: ACCT 101AF or ACCT 100BF with a grade of " $C$ " or better
Five hours lecture per week. This course provides a foundation for advanced courses in managerial accounting. The nature of the management process and the essential role of managerial accounting in this process are emphasized. Instructional topics include the application of managerial accounting to a manufacturing environment, job and process accounting systems, cost allocation, common cost classifications and estimation, cost-volume-profit analysis, absorption and variable costing, differential analysis for decision making, capital investment analysis, inventory management and analysis, budgeting, standard costing, responsibility accounting in a decentralized operation, and transfer pricing. Computer applications are integrated into the homework. This course is required of all accounting and business administration majors. (CSU) (UC) (Degree Credit)

ACCT 104 F Computerized Accounting (2)
Letter Grade or Pass/No Pass option
Prerequisite: ACCT 100AF with a grade of " $C$ " or better
Corequisite: ACCT 101AF with a grade of "C" or better
One and one-half hour lecture and one and one-half hour lab per week. This course provides hands-on experience in accounting on a microcomputer. Systems included are the general ledger, accounts receivable and accounts payable, financial statements analysis, depreciation, inventory, and payroll. (CSU) (Degree Credit)

ACCT 107 F QuickBooks (2)
One and one-half hour lecture and one and-one half hour lab per week. This course will introduce students to basic financial record keeping software using the double-entry system for recording transactions. Emphasis will be placed on how to use accounting application software in a small business environment. (CSU) (Degree Credit)

## ACCT 112 F Income Tax Procedure (3)

Three hours lecture per week. This course offers a simple and nontechnical presentation of the information needed in preparing Federal Income Tax returns for individuals whose income is derived from wages and other various sources. Tax deductions and credits are also covered in detail. (CSU) (Degree Credit)

## ACCT 201 AF Intermediate Accounting (4)

## Prerequisite: ACCT 101BF

Five hours lecture per week. A course in second-year accounting dealing with adjustments, working papers, cash and receivables, inventories, plant and equipment, intangibles, deferred charges, liabilities, income tax allocation and accounting for premiums. Required of all vocational accounting majors. (CSU) (Degree Credit)

## ACCT 201BF Intermediate Accounting (4)

## Prerequisite: ACCT 101BF

Five hours lecture per week. This course is a continuation of ACCT 201AF, involving a study of earnings per share, revenue recognition, accounting for pensions and other post-employment benefits, accounting changes and error corrections, cash flow statements, the impact of changing prices, and financial statement analysis. (CSU) (Degree Credit)

## ACCT 202 F Introduction to Cost Accounting (4)

Prerequisite: ACCT 101BF with a grade of "C" or better
Five hours lecture per week. This course covers the theory of cost accounting including job order costs, estimated costs, standard costs, miscellaneous costs, and distribution cost systems as applied to the control and management of business through cost accounting procedures. Parallels cost account courses in four-year colleges. Required of all vocational accounting majors. (CSU) (Degree Credit)

## ACCT 203 F Auditing (3)

## Prerequisite: ACCT 101BF

Three hours lecture per week. This course emphasizes internal auditing with questions and separate cases. Incorporated into the course is one long case for application of auditing principles. (CSU) (Degree Credit)

ACCT 204 F Analysis of Financial Statements (3)
Prerequisite: ACCT 101AF with a grade of "C" or better
Three hours lecture per week. This course deals with characteristics of financial statements and financial statement analysis. A study of goals, methods, and tools for analysis is studied. In addition, accounts receivable, inventories, projected statements, cash budgets, and cash flow are studied. Emphasis is placed on financial analysis from a banking viewpoint. (CSU) (Degree Credit)

# Administration of Justice (AJ) 

Technology \& Engineering Division<br>Office: Bldg 700, Room 730<br>714.992.7115<br>Dean: Scott McKenzie<br>Website: techneng.fullcoll.edu

Associate in Arts Degree<br>Associate in Science Degree<br>Administration of Justice Certificate<br>Crime Analysis Certificate<br>Crime Scene Investigation Certificate<br>P.O.S.T. Law Enforcement Skills Dev Certificate<br>\section*{Administration of Justice Courses}

AJ 059AF Basic Police Academy, Extended Format I (26)
Prerequisite: AJ 094 F or pre-service status with a law enforcement agency. No felony convictions. Valid California Driver's license.

## Advisory: AJ 080 F

Twenty-four hours of lecture and six hours of lab per week. This is the first semester of a course that meets all the requirements set forth by the California Commission on Peace Officer Standards and Training. A course study of statutory and case law relating to arrests, searches, seizures, related legal provisions governing the performance of peace officers, and Spanish for law enforcement. This includes the decision making process and moral and legal aspects of the use of force in making arrests. A study of the most modern firearm safety principles, capabilities and techniques of today's weapons and public and organizational policies involving the use of deadly force, in addition to other updated facets of a peace officer's functions. The academy stresses community oriented policing as a value system, a philosophy or management style that permits equal partnerships between the community and law enforcement to address crime and the fear of crime. Additionally, group discussions are held to increase the student's knowledge of Orange County demographics, the diversity of communities and other aspects of community policing. (Degree Credit)

## AJ 059BF Basic Police Academy, Extended Format II (26)

 Prerequisite: AJ 059AFTwenty-fours hours of lecture and six hours of lab per week. This is the second semester of a course that meets all the requirements set forth by the California Commission on Peace Officer Standards and Training. A course study of statutory and case law relating to arrests, searches, seizures, related legal provisions governing the performance of peace officers, and Spanish for law enforcement. This includes the decision making process and moral and legal aspects of the use of force in making arrests. A study of the most modern firearm safety principles, capabilities and techniques of today's weapons and public and organizational policies involving the use of deadly force, in addition to other updated facets of a peace officer's functions. The academy stresses community oriented policing as a value system, a philosophy or management style that permits equal partnerships between the community and law enforcement to address crime and the fear of crime. There is instruction to enhance the student's perception of law enforcement from a citizen's perspective. Additionally, group discussions are held to increase the student's knowledge of Orange County demographics, the diversity of communities and other aspects of community policing. (Degree Credit)

## AJ 067 F Current Issues in Administration of Justice (.5-3)

## Pass/No Pass only

Variable hours of lecture and/or lab. This course offers timely and current topics in the field of Justice Administration to enhance job skills, expand student knowledge, and increase employment opportunities. Unit credit may range from .5 to 3 units in any given semester. Consult the class schedule to verify specific topic area and credit offered in a particular semester. Course may be taken four times for credit.

## AJ 068 F Parolee Contacts (1.5)

Pass/No Pass only
Prerequisite: Peace Officer Status
Twenty-four hours lecture per semester. This course is designed to improve the police officer's ability to understand and deal with state prison paroles in many types of settings. It covers a basic understanding of the California prison system, typical parolee behavior, communicating with parolees and understanding conditions of parole. It also emphasizes teaching the officer the cognitive skills needed in a law enforcement field environment including proper field interrogation. Investigative recourses within the Department of Corrections are discussed as well as controlled interviews. (Degree Credit)

## AJ 069 F H\&S 11550 Drug Influence (.5)

Pass/No Pass only
Eight hours lecture per semester. This course is designed to improve the police officer's ability to recognize the objective symptoms of drug intoxication, with emphasis placed on the proper application of California Health and Safety Code 11550. The course covers how the peace officer can develop techniques to better identify signs of specific drug ingestion, use proper drug testing methods and write effective reports to aid in successful prosecution. (Degree Credit)

## AJ 070 F Emergency Management (1.5)

Pass/No Pass only
Twenty-four hours lecture per semester. This course is designed to introduce important tactical concepts when planning for natural and technological disasters and other critical incidents that require law enforcement response. It focuses on basic emergency management principles, including disaster preparedness, mitigation, response and recovery. Emphasis is placed on the use of the Standardized Emergency Management (SEMS) and Law Enforcement Incident Command (ICS) Systems. (Degree Credit)

## AJ 071 F Preventing Racial Profiling (.5)

## Pass/No Pass only

Eight hours lecture per semester. This course is designed to familiarize students with the conceptual and legal issues surrounding the unlawful practice of racial profiling. It examines critical cultural, legal and societal factors that ultimately lead to racial profiling as a discriminatory practice. The course emphasizes the need for the student to develop an understanding and respect for racial and cultural differences, and noncombative methods of carrying out law enforcement duties in a racially and culturally diverse environment. (Degree Credit)

## AJ 072 F Investigating Domestic Terrorism (1)

## Pass/No Pass only

Sixteen hours lecture per semester. This course is designed to give the student essential background information about domestic terrorism and demonstrate how law enforcement personnel can properly investigate terrorist crimes. An analysis of the historical, legal and political perspective of terrorist activity as well as assessing philosophical and psychological typologies of terrorists. The curriculum emphasizes how law enforcement can develop investigative and intelligence capabilities to counter terrorist activity as a part of American national security policy.

## AJ 073 F Interview and Interrogation Update (1.5)

Pass/No Pass only
Twenty-four hours lecture per semester. This course is designed to improve a police investigator's ability to legally gather testimonial evidence from victims, witnesses and suspects. It covers basic communication theory, interview/interrogation preparation, behavioral analysis and investigative tactics. The curriculum emphasizes a legal centered approach to the taking of statements from suspects and witnesses by analyzing current state and federal law. It is intended for the full-time investigator. (Degree Credit)

## AJ 074 F Conflict Resolution for Police Officers (.5)

Pass/No Pass only
Eight hours lecture per semester. The class will prepare law enforcement officers, and those interested in a career in law enforcement, to recognize the types of conflict encountered in law enforcement, communication styles that enhance and hinder conflict resolution, various methods of conflict resolution, and the resources available to law enforcement officers to assist in resolving conflict. (Degree Credit)

## AJ 075 F Cultural Diversity (1)

Pass/No Pass only
Sixteen hours lecture per semester. This course is designed to give students a perspective of public safety professionals and their relationship to major cultural, racial, and ethnic groups including persons with disabilities as well as gays and lesbians. This course will also examine law enforcement personnel issues that deal with gender, sexual harassment, diversity, affirmative action, and other contemporary challenges. (Degree Credit)

## AJ 076 F Community-Oriented Policing and Problem Solving (.5) <br> Pass/No Pass only

Eight hours lecture per semester. This course examines the communityoriented policing and problem solving (COPPS) philosophy and its impact on current law enforcement practices. The course explores the concept of police officers and private citizens working together in creative ways to help solve contemporary community problems related to crime, fear of crime and neighborhood decay. Emphasis is placed on how the implementation of the COPPS philosophy influences police planning and operations. (Degree Credit)

## AJ 077 F Organized Crime (1)

## Pass/No Pass only

Sixteen hours lecture per semester. This course will analyze the effects of International Organized Crime Groups in the United States and the American law enforcement effort to combat those criminal organizations. The class will review cooperative efforts between the United States and foreign governments to impact those organizations, the pitfalls encountered, and the success and failures that result. It will also examine the secret world of the "Men of Honor." (Degree Credit)

## AJ 078 F Multi-Agency Task Forces (.5)

Pass/No Pass only
Eight hours lecture per semester. This course will analyze the need, benefits, and procedures in the establishment of federal, state, and local task forces. Emphasis will be placed on working together in a multiagency environment and achieving desired outcomes. (Degree Credit)

## AJ 079 F Law Enforcement Career Preparation (.5)

Pass/No Pass only
Eight hours lecture per semester. This class will assist the student in identifying and utilizing effective performance strategies toward entrylevel law enforcement employment examinations. Emphasis is placed on specific civil service testing procedures, including written exams, physical agility tests, oral board interviews, and the background investigation process. (Degree Credit)

## AJ 080 F Lifetime Fitness for Law Enforcement (2)

Pass/No Pass only
Two hours lecture and two hours lab per week. This course is designed to introduce important wellness concepts to law enforcement personnel. Through the use of lecture, group discussion and practical demonstration, this course discusses how those in law enforcement can develop and maintain successful fitness habits and minimize job related stress. The course design emphasizes proper fitness assessment, effective anaerobic/aerobic fitness principles, the prevention of physical disablers through stress reduction, current nutrition guidelines and proper fitness program design. Course may be taken four times for credit. Intended to meet the basic requirements of Penal Code 13510 in raising the level of competence of California law enforcement officers. (Degree Credit)

## AJ 081 F Use of Force (.5)

Pass/No Pass only
Eight hours lecture per semester. This class will make each student aware of use of force situations in field police activities and demonstrate the necessity for detailed follow-up investigations. In addition the class will cover the involved officer's responsibility when using force and the supervisor's follow-up responsibilities. (Degree Credit)

## AJ 082 F Tactical Awareness (.5)

Pass/No Pass only
Eight hours lecture per semester. The class will aid the student in developing the positive mental awareness together with the physical consideration to handle tactical police situations. The realization is that in most situations officers respond and function as individuals, however, the importance of team work, control and supervision is reinforced. (Degree Credit)

## AJ 083 F Narcotics Training for Field Officers (.5)

Pass/No Pass only
Eight hours lecture per semester. This class will allow the student to be able to identify PCP and cocaine, recognize the objective symptoms of a suspect under the influence, understand the law and what is required in reporting to gain a filing and conviction of the suspect. (Degree Credit)

## AJ 084 F Domestic Violence (.5)

Pass/No Pass only
Eight hours lecture per semester. This class will demonstrate to the student that the intent of the Legislature in domestic violence cases is to stress enforcement of the laws to protect the victim and communicate the attitude that violent behavior is criminal behavior and will not be tolerated. The investigative process, arrest, court protective orders and victim assistance will be stressed. (Degree Credit)

## AJ 085 F Police Vehicle Pursuits (2)

## Pass/No Pass only

Two hours lecture per week. A study of police pursuits in California and the nation. Specific emphasis on California laws, both criminal and civil, affecting public agencies and violators involved in police pursuits. An analysis of officer and violator behavioral patterns both during and after police pursuits. This class will establish a better understanding of the dynamics and contemporary issues associated with high speed police chases.

## AJ 086 F Values, Principles, and Ethics (.5)

Pass/No Pass only
Eight hours lecture per semester. This class will discuss the principles of honesty and morality within an organization and for the individual. Discussion on the acceptable rules of conduct as they relate to a police department are stressed. Practical guidelines will be given to the student concerning their professional on-duty conduct and their personal off-duty conduct. (Degree Credit)

## AJ 087 F Supervisory Response to Officer Involved Shooting (1)

Pass/No Pass only
Prerequisite: Peace Officer status or approval of Department Coordinator with completion of AJ 110AF, AJ 110BF, AJ 137 F, AJ 151 F, AJ 220 F, AJ 223 F, and AJ 252 F required
Sixteen hour lecture per semester. The class will prepare the supervisor to handle the necessary steps to ensure a proper at scene investigation, officer interview, completed report and review process. (Degree Credit)

## AJ 088 F Gang Awareness Update (1.5)

## Pass/No Pass only

Prerequisite: Peace Officer status or approval of Department Coordinator with completion of AJ 110AF, AJ 220 F, AJ 223 F, AJ 226 F, AJ 252 F , and AJ 278 F required
Twenty-four hours lecture per semester. The class will prepare the officer or student to understand the history, dynamics and the problems associated with today's gangs. This class will help the student identify certain gang characteristics and activities. (Degree Credit)

## AJ 089 F Child Abuse/Child Pornography (.5)

Pass/No Pass only
Eight hour lecture per semester. The class will prepare the student to identify, arrest and investigate child abuse and child pornography crimes. (Degree Credit)

## AJ 090 F Weaponless Defense/Baton Training (.5)

Pass/No Pass only
Eight hour lecture per semester. The class will give the officer/student an understanding of the proper methods on use of weaponless defense and baton training. Also, the civil liabilities attached to the use of force will be discussed. (Degree Credit)

## AJ 091 Law Enforcement Instructor Development (2)

Pass/No Pass only
Two hours lecture per week. This course is designed to assist both current and future law enforcement instructors to maximize their instructional skills and improve the learning process. The course will introduce law enforcement instructors to current adult learning techniques and developing instructional technology. The instructors will be required to participate in both group and individual activities designed to enhance instructional skills. (Intended to meet the basic requirements of Penal Code 13510 in raising the level of competence of California law enforcement officers.)

## AJ 092 F Crime Scene Investigation (1)

Pass/No Pass only
Twelve hours lecture and twelve hours lab per semester. This class will give the police officer the knowledge and practical application to collect and preserve evidence at crime scenes. Students are required to supply 35 mm SLR/camera, two rolls of 24 exposure film and the cost of processing the film. (Degree Credit)

## AJ 093 F DNA Genetic Fingerprinting (.5)

## Pass/No Pass only

Eight hours lecture per semester. The class will prepare the officer/ student to properly handle DNA evidence collection and preservation. An understanding of the fundamentals of DNA and the current techniques of analysis will be presented. (Degree Credit)

## AJ 094 F Basic Police Academy Orientation (1)

## Pass/No Pass only

Sixteen hours lecture and eight hours lab. This course is designed to have the student complete a series of competitive tests and evaluations which are a prerequisite to being admitted into the upcoming Police Academy. An in-depth dissemination of the recruit curriculum, which is specifically designed to achieve technical competence and physical proficiency in all areas of police training. (Degree Credit)

## AJ 095 F Preventing Sexual Harassment (.5)

## Pass/No Pass only

Eight hours lecture per semester. To provide the student with a basic understanding of the diverse and changing work force, a brief history and an in-depth study of the current laws which define discrimination/ sexual harassment. (Degree Credit)

## AJ 096 F CAD/Crime Scene Application (.5)

Pass/No Pass only
Eight hours lecture and sixteen hours lab per week. A twenty-four hour short course to provide the student with a working knowledge of CAD functions utilized in crime scene investigation by using computer drafting to draw various applications for criminal and traffic collision investigations. This course is certified by Peace Officer Standards and Training (POST) for continuing education for peace officers.

## AJ 097 F Law Enforcement Supervisory Update (1.5)

 Letter Grade or Pass/No Pass optionTwenty-four hours lecture to provide the student with basic skills utilized in supervising law enforcement personnel. (Degree Credit)

## AJ 100 F Introduction to Law Enforcement (3)

Three hours lecture per week. Acquaints the student with the historical development of the criminal justice system, criminal behavior, the purpose of criminal law, and the advancement of the ethics and professionalism in the justice system. Provides an overview of the organization of local, state, and federal law enforcement agencies and an analysis of professional career opportunities. (CSU) (UC) (Degree Credit)

## AJ 102 F Introduction to Probation and Parole (3)

Three hours lecture per week. This course examines the organization and operations of correctional, probation and parole agencies as part of the United States criminal justice system. It introduces the learner to the basic principles of parole and probation at the federal, state and local levels of government. Emphasis is placed on how the parole and probationary functions impact the justice process, particularly at the law enforcement and court levels. (CSU) (Degree Credit)

## AJ 110AF Criminal Law (3)

Three hours lecture per week. A legal orientation of crime and the nature of criminal responsibility. Legal philosophy, processes and institutions are examined. Leading principles of law are explored with special emphasis given to laws of arrests, including an examination of the United States Constitution and the Bill of Rights. (CSU) (UC Credit Limitation) (Degree Credit)

## AJ 110BF Advanced Criminal Law (3) <br> Prerequisite: AJ 110AF

Three hours lecture per week. A study of the elements of crimes against persons, property, and the State as they are recognized in the Penal Code and General Laws of California. Parties in crime, culpability, and incomplete offenses are presented from the point of view of the peace officer and the courts. (CSU) (UC Credit Limitation) (Degree Credit)

## AJ 111 F Traffic Enforcement (3)

Three hours lecture per week. A study of the California Vehicle Code with emphasis on those sections which are most violated. Special study is made of traffic enforcement procedures, policies and issues which affect highway safety in today's society. (CSU) (Degree Credit)

## AJ 128 F Police-Community Relations (3)

Three hours lecture per week. Relationship between law enforcement agencies, ethnic groups, news media, and other segments of the public. Areas of conflict and cooperation are explored. Public-relations programs and their effect upon law enforcement are studied. (CSU) (UC Credit Limitation) (Degree Credit)

## AJ 135 F Weaponless Defense (1)

One hour lecture and one hour lab per week. Provides the student an opportunity to develop proficiency in the utilization of the police baton, the control of combative individuals, and the handling of passive, uncooperative, or armed-aggressive individuals. Meets one semester of physical education requirement. Course may be taken four times for credit. (CSU) (Degree Credit)

## AJ 137 F Firearms (1)

Prerequisite: AJ 110AF
One hour lecture and one hour lab per week. The moral aspects, legal provisions, safety precautions and restrictions covering the use of firing of the sidearm and shotgun. Course may be taken four times for credit. (CSU) (Degree Credit)

## AJ 140 F Juvenile Procedures (3)

Three hours lecture per week. A study of juvenile crime, laws and social issues relating to youthful offenders. Examination of child abuse, domestic violence and gang membership. Law enforcement responses to issues relating to juveniles, including the courts, probation and the California Youth Authority. (CSU) (Degree Credit)

## AJ 151 F Report Writing (3)

Three hours lecture and three hours lab per week. This course examines the proper writing of police crime reports and their importance in the successful prosecution of cases. Emphasis is placed on developing the students' ability to accurately take notes, employ appropriate methods of obtaining information from victims, witnesses, and suspects, formulate investigative techniques, and recognize proper report language. (CSU) (Degree Credit)

## AJ 220 F Criminal Procedure (3)

Three hours lecture per week. Provides a background of operational procedures in California law. Sets forth those procedures necessary for the understanding of legal proceedings pertaining to laws of arrest, search and seizure, admissibility of evidence, and jurisdiction of the courts. (CSU) (Degree Credit)

## AJ 222 F Rules of Evidence (3)

Three hours lecture per week. An introduction to the basic rules of evidence admissibility in criminal proceedings. Explains legal principles on how courts determine reliable, relevant and probative evidence in a court of law. Assesses how courts categorize and type evidence into a working framework for use in a criminal trial. Emphasis is placed on developing the law enforcement officers' skills in courtroom evidentiary presentation. (CSU) (Degree Credit)

## AJ 223 F Criminal Investigation (3)

Three hours lecture per week. Involves preliminary investigation, followup investigation, and courtroom presentation relating to criminal offenses and includes specialist lectures on the scientific elements. Emphasis is placed on the investigative process and the legal requirements of criminal inquiry. (CSU) (Degree Credit)

## AJ 226 F Narcotics and Vice Control (3)

Three hours lecture per week. Types of narcotics and their uses, with resultant law enforcement problems. Covers narcotics and vice enforcement, cures, and rehabilitation programs. (CSU) (Degree Credit)

## AJ 230 F Crime Scene Techniques (3)

Three hours lecture per week. This class will introduce the student to field techniques for the collection and preservation of physical evidence at the scene of the crime. The course will cover physical and testimonial evidence, scene responsibilities, processing the scene, fingerprint evidence, trace evidence, blood and bodily fluids, impression evidence, firearms evidence, dangerous drugs and clandestine laboratories, sexual assaults, domestic abuse, elder abuse, burglaries and homicide crime scenes. (CSU) (Degree Credit)

## AJ 252 F Police Patrol (3)

Three hours lecture per week. The fundamentals of proper patrol procedures and techniques, with particular emphasis on officer safety, public relations, and crime prevention. Designed to develop competency in handling frequently encountered police problems through the analysis of actual situations. The course will focus on developing officer survival skills through threat-based decision making. (CSU) (Degree Credit)

## AJ 276 F Investigation of Homicidal Behavior (3)

Three hours lecture per week. This course is a historical perspective of homicide in America today. Topics include motives for murder, psychology of murder, criminal investigation into homicide, victims of murder, those who murder and various methods of murder. The course will also examine the phenomena of serial and mass murderers. (CSU) (Degree Credit)

## AJ 277 F PC832 Arrest, Control and Firearms Training <br> (4.5) <br> Pass/No Pass only

Sixty-four lecture and twelve lab hours are required in professional orientation, law, evidence, investigation, community relations, communications, arrest and control and firearms safety and range training. This training is certified by the Commission on Peace Officer Standards and Training and will lead to employment in both the public and private sector. Such jobs as safety and security officers are available to those that satisfactorily complete the training. (CSU) (Degree Credit)

## AJ 278 F Multicultural Issues Within Administration of Justice (3)

Three hours lecture per week plus a series of practical exercises. A theoretical and conceptual overview of multicultural concepts and issues; an application of those concepts and issues to Administration of Justice; identification of problems related to our increasingly diverse population; examination of strategies to overcome those problems, particularly in relation to the maintenance of social order. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) MULT CULT REQ

## AJ 279 F Contemporary Issues in Law Enforcement (3)

Three hours lecture per week. This course explores major legal, societal and organizational issues affecting the law enforcement profession as it moves into the 21st century. Topics include ethics, police use of force, high-speed vehicle pursuits, cultural awareness, workplace diversity, and community-oriented policing and problem solving. The course emphasizes the development of problem solving strategies as a way to effectively deal with the challenges that police face. (CSU) (Degree Credit)

## AJ 901 F Organized Crime and the Criminal Justice System (3)

Three hours lecture per week. This course will analyze the effects of international Organized Crime Groups on the United States and the American law enforcement effort to combat those criminal organizations. The class will review cooperative efforts between the United States and foreign governments to impact those organizations, the pitfalls encountered, and the successes and failures that result. It will also look into the secret world of the mafia "Men of Honor." (Degree Credit)

## Anatomy and Physiology (ANAT)

Natural Sciences Division<br>Office: Bldg 1000 - 714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

## Anatomy and Physiology Courses

## ANAT 231 F General Human Anatomy (4)

Three hours lecture and three hours lab per week. This course includes a logical analysis of body tissues, organs and systems. It stresses the microscopic, developmental and gross anatomy of mammals, with special emphasis on human anatomy. Special attention is given to pathological as well as normal conditions. The lab work includes study of the developmental, microscopic and gross anatomy of preserved specimens and models. This course is designed primarily for physical education and allied health majors, but is also available for interested students of various liberal arts majors who desire or require an understanding of basic anatomy. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ANAT 240 F Human Physiology (5)

Prerequisite: ANAT 231 F and CHEM 101 F or equivalent, both with a grade of "C" or better
Three hours of lecture and six hours of lab per week. This course provides an in-depth study of human function. The focus of the course is maintenance of homeostasis. Organ systems are studied with respect to their interactions under normal and abnormal conditions. Lab experiences reinforce concepts studied in lecture and introduce students to clinical techniques. The course is designed for pre-health profession majors and other students that require a one semester course in physiology. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## Anthropology (ANTH)

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

Associate in Arts Degree

## Anthropology Courses

## ANTH 101 F Physical Anthropology (3)

Three hours lecture per week. This course is a study of the theories of human origin and evolutionary development using genetic, fossil evidence, plus a comparison of humankind anatomically and behaviorally with the higher primates. This field includes current research on the intellectual and cultural equality of the human races. At a number of California State universities and other four-year institutions, this course may be used for social sciences or biological science credit. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ANTH 101HF Honors Physical Anthropology (3)

Three hours lecture per week. This course is a study of the theories of human origin and evolutionary development using genetic, fossil evidence, plus a comparison of humankind anatomically and behaviorally with the higher primates. This field includes current research on the intellectual and cultural equality of the human races. At a number of California State colleges and other four-year institutions, this course may be used for social sciences or biological science credit. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments and a higher level of critical thinking. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ANTH 101LF Physical Anthropology Lab (1)

Corequisite: ANTH 101 F
Three hours lab per week. This course provides an introduction to lab methods used in research in physical (biological) anthropology. Topics include the classification, biology, and behavior of living primates, human skeletal and physiological anatomy, human genetics, methods of phylogenetic reconstruction, and evidence for the evolutionary history of humans and other primates. Emphasis is on practical experience. Students will examine skeletal materials from living and extinct primates, participate in experiments to illustrate analytical techniques used in modern physical anthropology, and observe the behavior of living primates through field trip and/or audio visual resources. In addition to lab exercises, one short research paper will be required. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ANTH 102 F Cultural Anthropology (3)

Three hours lecture per week. This course is an introduction to the cultural aspects of man's behavior and the nature of culture. It includes the uniformities and variabilities of culture, social organization, family structure, religion, language, and other basic topics. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## ANTH 102HF Honors Cultural Anthropology (3)

Three hours lecture per week. This course is an introduction to the cultural aspects of man's behavior and the nature of culture. It includes the uniformities and variabilities of culture, social organization, family structure, religion, language, and other basic topics. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and a higher level of critical thinking. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## ANTH 103 F Introduction to Archaeology (3)

Three hours lecture per week. Anthropological archaeology is a specialized branch of anthropology that studies cultural and physical anthropological evolutionary development; archaeology uses scientific methods and theories to trace human ecology from the past to the present. Archaeologists deal with remains of past societies such as tools, shelter, remains of animals eaten for food, and other objects that have survived. These remains, termed artifacts, are used to reconstruct past behavior. (CSU) (UC) (Degree Credit) CSU GE, IGETC

ANTH 105 F Language and Culture (3)
Three hours lecture per week. Students explore the nature of language in relation to culture and how language processes develop and change. Students will examine how cultural knowledge is linguistically organized and how language shapes our perception of the world, and how it acts as a guide, both symbolic and practical, to understanding human actions. A basic introduction into the primary concepts of the discipline help students to understand what language reveals about human beings as bearers of culture. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## ANTH 107 F The Anthropology of Magic, Witchcraft and Religion (3)

Three hours lecture per week. An anthropological survey of systems of magic, witchcraft, and religion from the past and the present, from societies around the world. It examines beliefs and practices in cultural settings with respect to the role of the supernatural. Special topics include myth, religious healing, witchcraft and sorcery, ritual and millenarian movements. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## ANTH 109 F Primate Behavior (3)

A survey of primates from around the world, with in-depth examinations of their behavior, ecology, taxonomy and anatomy. Students will gain experience in the collection and analyzation of behavioral data. Current issues in primate conservation will also be explored. Specific primate species will be used as case studies to further enhance students' knowledge of prosimians, monkeys, and apes. (CSU) (UC) (Degree Credit)

## ANTH 199 F Anthropology Independent Study (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken four times for credit. (CSU) (UC credit limitation depending upon course content; UC review required.) (Degree Credit)

## ANTH 209 F Cultures of Latin America (3)

Three hours lecture per week. The scope of this course focuses on the exploration of the diverse cultures of Ancient Latin America or Mesoamerica, from the origins of civilization, to the period of the Spanish conquest and some of the current issues indigenous people face in Latin America. The study would be done by integrating an anthropological holistic approach using all five fields of anthropology. The study of ancient Latin American cultures will be based on fields of anthropology. The study will be based on archeological investigations, ethnographical research and various theoretical frameworks to enhance the understanding of the human experience in Latin America. The course will attempt to recreate the lifestyle, social structures, agricultural methods, religious practices and other various culture aspects of Mesoamerican civilizations in order to have a better understanding of the current conditions and aspects of the various diverse cultural groups from Latin America. The focus will be on Mesoamerican civilization as well as the Inca and other indigenous groups from South America. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ANTH 211 F Celtic Cultures (3)

Three hours lecture per week. This course will utilize data from archeology, genetics, historical linguistics and classical Greek and Roman texts to explore the origins, conquests and migrations of the ancient Celts. The complex whole that encompasses Celtic society and culture, from the past to the present, and in different geographic areas will be studied including Celtic religion, myth and ritual, roles of females and males, art, warfare, ways of life, as well as current struggles for social, linguistic and political rights. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ANTH 231 F Field Course in Archaeology (3)

Thirty-six hours plus fifty-four hours lab per semester. First five weeks of lecture in the classroom; remainder of lecture and lab hours in the field at a selected archaeological site. This class is designed to provide a basic understanding of archaeological scientific field methods used in the investigation of an archaeological site. Field trips to local archaeological sites are a required part of instruction and will emphasize surveying and/or excavation. Site mapping, photography and other recordation techniques will be utilized. Cataloging, appropriate preservation, and the interpretation of surface and/or sub-surface artifacts will be completed. Students will begin the process of proper site survey report writing. Students repeating the course (second semester of 231 F ) will be expected to perform survey and excavation tasks at a higher skill level and to have rudimentary skills in tasks not expected of students taking the course for the first time (first semester of 231 F). Course may be taken twice for credit. (CSU) (Degree Credit)

# Arabic (ARAB) 

Humanities Division<br>Office: Bldg 500, Room 522-O<br>714.992.7036<br>Dean: Dan Willoughby<br>Website: www.humanities.fullcoll.edu

## Arabic Courses

## ARAB 101 F Elementary Arabic I (5)

Advisory: Reading clearance is recommended
Five hours lecture plus one arranged hour lab per week. This course focuses on the four major skills of language learning - listening comprehension, speaking, reading, and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Arabic-speaking countries. This course is conducted primarily in Arabic. (CSU) (UC) (Degree Credit) AA GE, CSU GE

ARAB 102 F Elementary Arabic II (5)
Prerequisite: ARAB 101 F with a grade of " $C$ " or better OR one year of high school Arabic with a grade of "C" or better.
Five hours lecture per week plus one arranged lab hour per week. This course continues to focus on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. A continued emphasis on the acquisition of vocabulary, structures and grammatical patterns necessary for comprehension of classical Arabic in conjunction with Modern Standard Arabic as spoken in the Eastern Arabic countries and in Egypt. This course includes an expanded discussion of Arabic world, culture and daily life. This course is conducted primarily in Arabic. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## Architecture (ARCH)

## Technology \& Engineering Division

Office: Bldg 700, Room 700
714.992.7578

Dean: Scott McKenzie
Website: techneng.fullcoll.edu
Associate in Science Degree
Architectural CAD Technology Certificate

## Architecture Courses

## ARCH 111 F Introduction to Architecture (3)

Three hours lecture per week. This course is designed for architecture majors as well as people interested in learning more about the architectural profession. The focus is split into two areas of emphasis. Architectural theory and history are explored from ancient civilizations to the present trends in design. The practical/business side of architecture is discussed; the topics include education requirements and job opportunities as well as the architect's perceived role in our society. (CSU) (UC) (Degree Credit)

## ARCH 113 F Architectural Drawing I (3)

Two hours lecture and four hours lab per week. An introductory course designed to develop graphic and visualization skills, and its link as a means of externalizing, evaluating and communicating ideas. It will include both freehand and mechanically constructed type of orthographic, axonometric, oblique and lineal perspective drawings on twodimensional surfaces. It is intended to develop the use of instruments, lettering, line weights, graphics and presentation layout. The media to be used will include pencil, ink, colored pencil and markers. (CSU) (UC) (Degree Credit)

## ARCH 124 F Architectural CAD I (3)

Two hours lecture and three hours lab per week. This is a beginning course in using the CAD system for architectural applications. The course covers elementary principles associated with the various menu and command structures in computer-assisted drafting. Topics included are file management, layering, symbol libraries, orthographic projection, dimensioning, line types and the generation of text. (CSU) (Degree Credit)

## ARCH 125 F Design Studio I (4)

Prerequisite: ARCH 113 F
Three hours lecture and three hours lab per week. This course introduces the student to the formal and spatial language of architecture. Assignments will be explored in the form of studio projects. Such projects will be the analysis of case studies, and their integration in the design process. (CSU) (Degree Credit)

## ARCH 215 F Design Studio II (4)

Prerequisite: ARCH 125 F
Three hours lecture and three hours lab per week. The course is a continuation of Design Studio I to further enhance skills in the development of a personal theory of design. Students will extend their understanding in such areas as visualization, decision making, and evaluation. (CSU) (Degree Credit)

## ARCH 225 F Design Studio III (4)

Prerequisite: ARCH 215 F
Three hours lecture and three hours lab per week. This course is a continuation of Design Studio II to further enhance skills in understanding the organization of design and emphasis on the means of architecture. Site analysis and building orientation will be explored. Two and three-dimensional drawings and model building will be produced. (CSU) (Degree Credit)

## ARCH 227 F Internship in Architecture (1-4)

One hour lecture per week and five hours of supervised employment per week in an architectural office. An additional five hours per week of supervised employment is to be completed for each additional unit of credit. This course is designed to provide learning opportunities through employment in an architectural firm or related type of business. No more than three units may be applied toward the degree or certificate. (CSU) (Degree Credit)

## ARCH 924 F Architectural CAD II (3)

Prerequisite: ARCH 124 F
Two hours lecture and three hours lab per week. This is an intermediate course that utilizes the CAD system for architectural applications. The course incorporates principles associated with the various menu and command structures in computer-assisted drafting to develop solutions to 2-D and 3-D design problems. (Degree Credit)

## ARCH 934 F Architectural CAD III (3) <br> Prerequisite: ARCH 924 F

Two hours lecture and three hours lab per week. This is an advanced course utilizing the CAD system to produce a set of construction documents. This course deals with two-story residential construction as applicable to the present professional standards in terms of technical drafting and 2-D and 3-D computer drafting. (Degree Credit)

## ARCH 944 F Architectural CAD IV (3)

## Prerequisite: ARCH 934 F

Two hours lecture and three hours lab per week. This course covers applied usage of computer-assisted drafting (CAD) to special problems in architecture. The student will learn various techniques in the generation of architectural projections such as isometric, oblique, one and two point perspective. Three-dimensional solids modeling will also be explored. (Degree Credit)

# Art Computer Graphics (ACG) 

Fine Arts Division<br>Office: Bldg 1100<br>714.992.7034<br>Website: acg2.fullcoll.edu<br>\section*{Computer Animation/Multimedia Certificate<br><br>Computer Graphics Certificate<br><br>Desktop Publishing Certificate<br><br>3D Animation Certificate - Level II}

## Art Computer Graphics Courses

## ACG 100 F Intro: Computer Graphics/MAC (3)

Two hours lecture and three hours lab per week. This class teaches the fundamentals of computer graphics to input, create, manipulate and output a variety of images. Students learn and use a varied selection of visual arts software while gaining insights into the basic principles of digital computers and digital graphics. Extensive hands-on use of computers and other hardware allows students to build a portfolio and acquire the experience levels necessary to advance in this field. (CSU) (Degree Credit)

## ACG 102 F Intro: Web Graphics/MAC (3)

Two hours lecture and three hours lab per week. This is a study of page development, navigation, graphics, animation, video, and sounds media for use on the Internet. During the course of the semester, the student builds an assigned web site and a personal Web site. This class is intended as a gateway to a web certificate. Students can pursue additional in-depth study on the topics(s) that most attracted them during the semester. (CSU) (Degree Credit)

## ACG 104 F Intro: 3-D Graphics/Mac (3)

Two hours lecture and three hours lab per week. The course emphasis is on the introduction of three dimensional computer modeling and animation with a program that uses standard industry tools and techniques. The course evolves from typical three-dimensional concepts, varied modeling techniques, texture mapping, lighting, basic motion control, parenting, to the use of FK and IK structures, and other modeling and animation skills. Additional open lab work may be needed to complete assignments. (CSU) (Degree Credit)

ACG 105 F 2-D Computer Graphics and Paint for DOS (3)
Two hours lecture and three hours lab per week. This course focuses on computer generated 2-D drafting and design techniques, employed as a tool by graphic designers, through use of micro-computer based design and paint programs. Open lab work may be required to complete assignments. (CSU) (Degree Credit)

## ACG 106 F Intro: Dimensional Design/MAC (3)

Two hours lecture and three hours lab per week. An introduction to 3D modeling and drafting where the final result is scaled drawings. A focus on design presentation techniques includes colored output in static, animated, and virtual reality forms, making this an ideal course for scene designers, architects and other dimensional designers whose final presentation must be of the highest quality. Open lab work may be required to complete assignments. (CSU) (Degree Credit)

ACG 108 F Survey of Graphics Software (3)
Two hours lecture and three hours lab per week. This is a survey of the many uses of computer multimedia. Lectures and demonstrations show how to use a number of computer programs to create Internet-ready works. In the course of the semester, the students build a personal web page enriched with such audiovisual elements as animation, sound, video, 3-D and different types of still images. This class is intended as a gateway into the varied offerings of the Art Computer Graphics program where students can pursue more in-depth study on the topic(s) that most attracted them during this initial exploration. (CSU) (Degree Credit)

## ACG 112 F Electronic Illustration (3)

Two hours lecture and three hours lab per week. The study of digital tools to make visual art intended for publication. Demonstrates the resolution of artistic and conceptual problems faced by professional illustrators, using vector graphics programs as visual medium. Vector graphics is the technology of choice for adaptable artwork suitable for traditional print formats as well as new electronic media such as Web pages on the Internet. Vector images are often characterized by a stylized, hard-edge appearance. These programs are less appropriate for photographic or painterly material. The course covers leading vector graphics software with plenty of hands-on use of the computer to build a portfolio and acquire the experience levels demanded by employers and clients. (CSU) (Degree Credit)

## ACG 120 F 3-D Modeling (3)

Two hours lecture and three hours lab per week. This course is a study of digital tools to represent objects in 3D space. Learn the basics of 3D computer graphics. This is the foundation for special effects in movies and computer games. The course covers leading 3D graphics software with plenty of hands-on use of the computer to build a portfolio and acquire the experience levels demanded by employers and clients. (CSU) (Degree Credit)

## ACG 132 F Electronic Paint for Macintosh (3)

Two hours lecture and three hours lab per week. This course teaches students how to make pictures using raster graphics programs. Raster graphics is the technology of choice for continuous-tone artwork, suitable for traditional print formats as well as new electronic media such as Web pages on the Internet. Visually, raster images are often characterized by a photographic or painterly appearance. These programs are less appropriate for stylized, hard-edge material. The course covers leading raster graphics software, with plenty of hands-on use of the computer to build a portfolio and acquire the experience levels demanded by employers and clients. (CSU) (Degree Credit)

## ACG 140 F Desktop Publishing I for Macintosh (3)

Two hours of lecture and three hours of lab per week. This course focuses on the use of computers as a design aid to general "camera ready" page layouts, integrating graphics and text. Emphasis is on design of the page, use of the computer programs, and printing skills required for a finished product. Open lab work may be required to complete assignments. (CSU) (Degree Credit)

## ACG 146 F Desktop Publishing II (3)

Two hours of lecture and three hours of lab per week. This course focuses on the use of advanced options of desktop publishing programs as a design aid to generate "camera ready" page layouts. Emphasis is on developing experience in varied types and sizes of commercial projects. Open lab work may be required for completing assignments. (CSU) (Degree Credit)

ACG 150 F 3-D Computer Animation for Macintosh (3-3)
Two hours of lecture and three hours of lab per week. This course is a study of digital tools to represent moving objects in 3-D space. Learn the basics of 3-D computer animation. This is the most widely used technique for special effects in movies and computer games. The course covers leading 3-D graphics software, with plenty of hands-on use of the computer to build a demo reel and acquire the experience levels demanded by employers and clients. Course may be taken twice for credit. (CSU) (Degree Credit)

ACG 162 F Multi Media for Macintosh (3)
Two hours of lecture and three hours of lab per week. This course is a study of digital tools to represent moving objects in 2D space. Learn how to create 2D computer animation. Final output may integrate additional media (sound, text, graphics and video), and find distribution as CD-ROMs, web pages, complete websites, videos, cartoons, animated shorts, games, education, instructional training and creative selfexpression. (CSU) (Degree Credit)

## ACG 164 F Multimedia Authoring (3)

Two hours lecture and three hours lab per week. This course focuses on designing interactive multimedia presentations by integrating a variety of programs and media (sound, text, graphics, and video). Final output may take the form of DVDs, CD-ROMs, websites, videos, cartoons, animated shorts, games, educational software, and creative self-expression. Open lab work may be required to complete assignments. (CSU) (Degree Credit)

## ACG 170 F Digital Photography (3)

Two hours lecture and three hours lab per week. This course will focus on digital photography and the advanced usage of software for the manipulation of raster images for the development of fine art and photographic images appropriate for advertising design. Digital cameras, scanners, photo CDs, and video images provide the basis for image manipulation pushing to the extreme of digital photography. Course topics include camera selection, image enhancement editing, compositing, retouching, photomontages, pre-press, color management, color separations and service bureaus. (CSU) (Degree Credit)

## ACG 180 F Digital Video (3)

Two hours of lecture and three hours of lab per week. The course includes the study and hands-on use of computers, assorted software, CD-ROMs, video cameras, and other tools and techniques used for digitizing, editing, and composition of video and audio sources. The course provides an in-depth introduction to the world of desktop video used in the fields of multimedia, video editing (both online and offline) and the creation of engrossing websites. (CSU) (Degree Credit)

## Art (ART)

Fine Arts Division<br>Office: Bldg 1100<br>714.992.7034<br>Dean: Bob Jensen<br>Website: finearts.fullcoll.edu

Advertising and Graphic Design - Associate in Arts Degree Advertising and Graphic Design Certificate<br>Art - Associate in Arts Degree<br>Illustration Certificate

## Art Courses

## ART 110 F Introduction to Art (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week. This course provides an introduction to art from prehistoric times to the present. While examining the role that the visual arts have played in the development of the world's cultures, the student is exposed to a wide variety of artistic media. Classroom presentations are supplemented by gallery and museum visits. In a full semester course an additional 15 minutes per week will be spent in the art gallery, pro-rated per semester for short-term courses. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ART 112 F Art History - Ancient and Medieval (3)

Three hours lecture per week. This course presents a study of Western art, including architecture, sculpture and painting from Prehistory through the Middle Ages. Art history courses may be taken in any sequence; at least two semesters are required of art majors. In a full semester course an additional 15 minutes per week will be spent in the art gallery, prorated per semester for short-term courses. (CSU)(UC)(Degree Credit) AA GE, CSU GE, IGETC

## ART 113 F Art History - Renaissance to Modern (3)

Three hours lecture per week. This course is a survey of architecture, sculpture and painting from the Renaissance through the Twentieth century. Art history courses may be taken in any sequence; at least two semesters are required of art majors. (CSU)(UC)(Degree Credit) AA GE, CSU GE, IGETC (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

ART 114 F Art History - Impressionism to the Present (3) Three hours lecture per week. The development of modern architecture, sculpture and painting from their origins in the 19th century to the present. Art history courses are open to all students and may be taken in any sequence; at least two semesters are required for art history majors. (CSU)(UC)(Degree Credit) AA GE, CSU GE, IGETC

## ART 115 F Museum Survey (3)

Three hours lecture per week. This is a basic course in the study of museums and their collections. The course includes on-site lectures pertaining to the function of museums, the history of the art collections, the analysis and interpretation of the art in each collection and exhibition design. (CSU) (Degree Credit) AA GE

ART 116 F Art History - Mexico (3)
Three hours lecture per week. This course is a survey of the visual arts of Mexico from the earliest civilizations to contemporary Mexican and Chicano art. Both traditional and popular art forms are studied in the context of the cultures that produced them. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ART 117 F History of American Art (3)

Three hours lecture per week. This course is a survey of American art and architecture from the 17th century to the present. Lectures will present an overview of painting, sculpture, photography, and architecture from Colonial beginnings through recent Post-Modern developments. Emphasis will be placed on discovering what is American in American art. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ART 118 F Color Theory (3)

Two hours lecture and 4 hours lab per week. Introduction to fundamentals of color theory through lecture and applied exercises in paint and collage. Includes discussion of cultural differences in color symbolism and the historical development of conceptual models of color usage in both science and art. Theoretical focus will be on the Brewster, Munsell and Ostwald systems of color organization and the emphasis of the studio exercises is on practical applications of color theory in the visual arts professions. The course concludes with an introduction to digital color as used in computer graphics. (CSU) (UC) (Degree Credit) CSU GE

## ART 119 F Design and Color for Non-Art Majors (2)

One hour lecture and three hours lab per week. This course covers the elements of art, principles of design and color theory with emphasis on creative experiences in two-dimensional design. Media include pencil, ink, paint, and collage. Recommended for non-art majors. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## ART 120 F Basic Design (3)

Two hours lecture and four hours lab per week. This course includes an introduction to the art elements of line, shape, value, texture, pattern, color, and the principles of composition. These design elements and principles will be used to create two-dimensional visual images. Various media are used. (CSU) (UC credit) (Degree Credit) AA GE, CSU GE

## ART 121 F Three-Dimensional Design (3)

## Advisory: ART 120 F

Two hours lecture and four hours lab per week. An introduction to three-dimensional design. This course defines the contrast of threedimensional form to the two-dimensional format. The focus is on 360 degree design, in materials selected to best depict this contrast. This course involves the use of hand tools and some power equipment. Course may be taken one time for credit. (CSU) (UC) (Degree Credit) CSU GE

## ART 122 F Gallery Design and Exhibition (3)

Two hours lecture and four hours lab per week. This course provides an introduction to all elements of designing and installing art exhibitions in the Fullerton College Art Gallery. This course includes the basic skills of installing art, lighting, labeling, advertising and includes field trips to museums and galleries. In a full semester course, an additional 15 minutes per week will be spent in the art gallery, prorated per semester for short-term courses. Recommended for Art Majors. Course may be taken three times for credit. (CSU) (Degree Credit)

## ART 123 F Business Practices in Art (3)

Three hours lecture per week with field trips and guest speakers. This course examines the basic business and professional practices needed to begin or continue a career in the visual arts. The class will require portfolio presentation, creation of resume and self-promotional pieces in addition to an understanding of proposals, contracts, and personal business practices. Also, a personal business notebook is to be kept by the students for future use. (CSU) (Degree Credit)

## ART 127 F Painting Concepts - Floral (2)

One hour lecture and three hours studio per week. This course covers a conceptual approach to organic form including floral compositions and various visual plant elements. The students will deal with classic symbolism and contrasts, employing fundamentals of color harmony and structure. Work is from nature, still life and photography in various painting media. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## ART 128 F Oil Portrait Painting (2)

## Prerequisite: ART 129 F

One hour lecture and three hours studio per week. The development of portraiture through schematic studies and observational methods using models and plaster busts. Representational observation of facial features and varied facial types and expressions will be developed into oil portrait paintings. Costume, setting, color harmony and historic and contemporary portraiture concepts to be studied. Production hours outside of class time are required. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## ART 129 F Portrait Drawing and Painting (2)

Advisory: ART 182 F and 186AF
One hour lecture and three hours studio per week. An exploration course in portrait drawing and painting based upon the study of the human head. Facial structure and the representation of many types of people in various art media are explored. Growth of individual expression and development of personal style is encouraged. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## ART 131 F Printmaking (3)

Advisory: ART 120 F or ART 182 F, both with a grade of "C" or better Two hours lecture and four hours lab per week. This course provides experience with materials and processes involved in non-toxic approaches to relief, intaglio, screen-print and lithography, including the exploration of digital print processes. Designed to encourage graphic creativity and professional skill in the development of plates and their printing augmented by an awareness of traditional and contemporary methods and styles. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## ART 139 F Fashion Sketching (2)

One hour lecture and three hours studio per week. Designed for the student interested in a fashion career or the graphic design or illustration major wanting to develop fashion sketching skills. The course will include refinement of basic skills in drawing of the clothed figure as well as rendering of fabrics and patterns. Media used includes graphite, ink, marking pens, charcoal, colored pencils, photocopy, and mixed media. Development of a personal sketching style will be encouraged. Course may be taken three times for credit. (CSU) (Degree Credit)

## ART 140 F Introduction to Advertising and Graphic Design (3)

Two hours lecture and four hours lab per week. This is a basic course in advertising and graphic design with an emphasis on communication through use of concepts, type and images. Includes development of layout and computer skills, style and an introduction to logotype design. (CSU) (Degree Credit)

## ART 144 F Fundamentals of Cartooning (2)

Advisory: ART 182 F or ART 179 F
One hour lecture and three hours lab per week. An introduction to basic cartooning techniques. Includes sketching, inking, and the development of characters. Projects include gag line cartooning, political cartooning, and the development of a weekly cartoon strip. In addition, there will be an analysis of the elements of both the humorous and the dramatic in cartoon art. This analysis will include a review of historically significant Sunday funnies and comic book characters, as well as an examination of major trends in comic art from 1895 to the present. May be taken two times for credit. (CSU) (Degree Credit)

## ART 145 F Publication Design (3)

Advisory: ART 140 F and ACG 100 F
Two hours lecture and three hours lab per week. This is an advanced course with emphasis on the design of publications such as brochures and magazines layouts to simulate real world assignments. Finished comprehensive projects will be created on the computer to a professional quality suitable for inclusion in a student's portfolio. (CSU) (Degree Credit)

## ART 146 F Advertising Design (3)

Advisory: ART 140 F and ACG 100 F
Two hours lecture and three hours lab per week. This is an advanced course with emphasis on design for advertising. The assignments are intended to simulate real world experience and may include advertising campaigns, posters, and billboards. Finished comprehensive projects will be created on the computer to a professional quality suitable for inclusion in a student's portfolio. (CSU) (Degree Credit)

## ART 147 F Production Techniques for Graphic Designers (3) <br> Advisory: ART 140 F

Two hours lecture and three hours of lab per week. A study of methods and techniques necessary in preparing artwork for reproduction. Areas emphasized are: computer-generated preparation of mechanical art, electronic pre-press, typography, paper specification, and commercial printing methods. This course is oriented specifically to the needs of graphic design students. (CSU) (Degree Credit)

## ART 148 F Packaging Design (3)

Advisory: ART 140 F and ACG 100 F
Two hours lecture and three hours lab per week. This is an advanced level course with emphasis on design for packaging. The assignments are intended to simulate real world experience and will include designing for a range of 3D surfaces. Finished comprehensive projects will be created on the computer to a professional quality. Students will be introduced to basic digital photography concepts for recording their work and creating images suitable for portfolio inclusion. (CSU) (Degree Credit)

## ART 150AF Ceramics, Beginning Handbuilding (3)

Two hours lecture and four hours lab plus one hour arranged per week. This class is a survey course dealing with three-dimensional design in clay as an entry in appreciation of the creative process and its physical execution using ceramic handbuilding techniques. Emphasis is placed on imagining, designing, creating, and evaluating vessel and sculptural form using the coil, slab and pinch processes, and on textural and sculptural embellishment of surface. In addition, review of historical and traditional models, glazing techniques, kiln loading, and basic technology of clay, glazes and firing are included. Approximately 100 hours class time. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## ART 150BF Ceramics, Beginning Throwing (3) Prerequisite: ART 150AF

Two hours lecture and four hours lab plus one hour arranged per week. Developing technique in the use of the potter's wheel is emphasized. An introduction to design, decoration, and glazing of wheel-thrown utilitarian forms. Kiln loading and basic technology of clay, glazes, and firing are included. (CSU) (UC) (Degree Credit) CSU GE

## ART 150CF Ceramics, Advanced (3)

## Prerequisite: ART 150AF or ART 150BF

Two hours lecture and four hours lab plus one hour arranged per week. This course is advanced study of handbuilding and/or throwing techniques, design of forms, and surface decoration. Kiln operation is also emphasized. Development of further skills, knowledge, and conceptual ability is accomplished through individually determined projects. Approximately 100 hours class time. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## ART 151 F Technical Ceramics (2)

One hour lecture and three hours studio and one hour open studio per week. An investigation of clay, glazes, and oxides commonly used in the craft of ceramics. Materials covered will include sources of base, neutral and acid oxides, and an investigation of colorants for clays and glazes of various types. Basic glaze calculation will be stressed. FIRST SEMESTER: emphasizes clay materials and formulation. SECOND SEMESTER: emphasizes glaze material and formulation. Course may be taken three times for credit. (CSU) (UC) (Degree Credit)

## ART 152 F Ceramics Lab (1)

Pass/No Pass only
Corequisite: ART 150AF, ART 150BF, ART 150CF, ART 151AF, ART 261F, or completion of ART 150AF, ART 150BF, ART 150CF
Forty-eight hours lab per unit in the Ceramics Lab doing studio ceramics activities including handbuilding techniques, slab, coil, pinch construction, glaze preparation and application, throwing on the potters wheel, sculptural and combined building techniques and other studio activities. For each 48 hours that the student spends working in the Ceramics Lab beyond the Ceramics Lab requirements of the concurrent course, one unit of credit will be granted. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## ART 159 F Master Potters (2)

Letter Grade or Pass/No Pass option
One hour lecture and three hours studio per week. This course offers the experienced student an expanded knowledge of the Ceramic Arts through an in-depth study of the work of a featured Master Potter. Each semester the work of a different Master Potter will provide inspiration for the students to analyze and emulate in their own work. Course may be taken four times for credit. (CSU) (Degree Credit)

## ART 160 F Fundamentals of Sculpture (3)

Two hours lecture and four hours studio and one hour arranged per week. An introduction to sculpture using basic concepts, materials, techniques and terminology. This course focuses on modeling, casting and mold-making. This course is appropriate for the beginning student and those with limited sculpture experience. May be taken twice for credit. (CSU) (UC) (Degree Credit) AA GE

## ART 161 F Advanced Sculpture (3) <br> Advisory: ART 160 F

Two hours lecture and analysis and four hours studio and one hour arranged per week. An introduction to the support processes of sculpture, to expand the development of techniques, materials and processes. Class requirements are arranged by contract to allow a wide diversity of projects. Emphasis is on development on individual style and the ability to plan and direct a semester of sculpture. May be taken twice for credit. (CSU) (UC) (Degree Credit)

## ART 162 F Sculpture - Cast Metal (3)

## Advisory: ART 160 F or ART 185 F

Two hours lecture and analysis and four hours studio per week plus one hour open studio per week. An introduction to the lost wax bronze casting process, investment, vacuum sand casting. This class includes wax model production and mold making. Metal chasing and patination complete the cast bronze sculpture. In consecutive semesters, the complexity of the projects require alternative skills, techniques and materials. Course may be taken four times for credit. (CSU) (Degree Credit)

## ART 163 F Sculpture Open Studio (1)

Pass/No Pass only
Corequisite: Enrollment or completion of any one of these courses: ART 160AF, ART 160BF, ART 161AF, ART 161BF, ART 162AF, ART 162BF, ART 162CF, ART 162DF, ART 173AF, ART 173BF, ART 173CF, ART 173DF, ART 174AF, ART 174BF, ART 174CF, ART 174DF, ART 176AF, ART 176BF, ART 176CF, ART 176DF or ART 121 F
Fifty-four hours of studio time in the sculpture and three-dimensional design facility. The lab course gives access to the facility and equipment. For each 54 hours that students spend in the studio beyond their class hours, one unit of credit will be earned. A sign-in sheet must verify all hours. Course may be taken four times for credit. (CSU) (Degree Credit)

## ART 164 F Sculpture: Metal Fabrication (3)

Two hours lecture and four hours studio and one hour arranged per week. An introduction to the support processes of sculpture, to expand the development of techniques, materials and processes. This course will focus on basic techniques and processes used for fabricating metal sculpture. The primary methods that will be explored for the purpose of sculpture are oxyacetylene and MIG welding. This course is not a substitute for any welding course. Course may be taken four times for credit. (CSU) (Degree Credit)

## ART 173 F Jewelry Casting (3)

Two hours lecture and four hours studio per week. This course is an introduction to basic concepts and techniques in designing and casting jewelry including reproduction techniques and wax models. The focus of this class is originality in jewelry design relating to contemporary and historical aesthetics. The additional semesters involve advanced problems in jewelry casting. Course may be taken four times for credit. (CSU) (Degree Credit)

## ART 174AF Jewelry: Fabrication (3)

Two hours lecture and four hours studio per week. This class is an introduction to the concepts and techniques in the design and construction of jewelry and small metal objects. Fabrication techniques will require the cutting, forming, and soldering techniques of sheet metals. The focus of this course is on original design in fine art jewelry in previous metals. (CSU) (Degree Credit) CSU GE

## ART 174BF Jewelry: Fabrication (3) <br> Prerequisite: $A R T$ 174AF

Two hours lecture and four hours studio per week. This class is a continuation of ART 174AF. Further development of jewelry fabrication techniques are explored which include hollow form, articulation, surface treatment, repousse, patina and inlay. This class discusses advanced concepts and techniques in the design and construction of jewelry and small metal objects. Fabrication techniques will require the cutting, forming, and soldering techniques of sheet metals. The focus of this course is on original design of fine art jewelry in previous metals. (CSU) (Degree Credit)

## ART 176 F Stained Glass (Architectural Fabrication for Residential and Commercial) (3)

Two hours lecture and four hours studio per week. SECTION 1: Students learn the basics of designing and constructing both two- and three-dimensional stained glass projects using the "Tiffany Foil" technique and other cold glass processes such as mosaic. Proper use of tools, materials and vocabulary will be emphasized. Project emphasis will be in the design and fabrication of residential and commercial pieces. SECTION 2: Students continue developing skills learned in prior semester in addition to learning alternative processes such as overlay, sandblasting, and fusing. Project emphasis will be in the design and fabrication of residential and commercial pieces. SECTION 3: Students are involved in three-dimensional and large scale projects; also independent, instructor-approved fabrications of real world commission-type projects utilizing all processes and vocabulary learned in first and second semesters. Project emphasis will be in the design and fabrication of residential and commercial pieces. Course may be taken a total of four times with Section 1 and two taken once each and Section 3 taken two times. Production hours outside of class time are required. (CSU) (Degree Credit)

## ART 179 F Drawing for Non-Art Majors (2)

One hour lecture and three hours studio per week. Beginning course in traditional and contemporary drawing techniques and terminology with an emphasis on representational drawing accomplished with a variety of media, including, but not limited to, graphite, charcoal, conte, ink, oil and/or chalk pastel, and colored pencil. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## ART 180 F Perspective Drawing and Rendering (3)

## Prerequisite: ART 182 F

Two hours lecture and four hours studio per week. The main objective of this class is creating the illusion of three dimensions on a twodimensional drawing surface. The lectures cover the basics of the visual perception of space, and the artistic techniques based on it. Perspective topics include its use as a descriptive and compositional device, and a discussion of the limits of linear perspective and of alternative ways to represent space. Rendering topics include explanations of the surface qualities of various materials, and the accurate depiction of the materials' interaction with light. This course also meets student needs in advertising, illustration, and industrial design. Course may be taken three times for credit. (CSU) (Degree Credit)

## ART 181 F Drawing from the Masters (2)

One hour lecture and three hours lab per week. The lecture portion of this class covers working methods and media of master draftsmen from previous centuries. The lab consists of analyzing and copying master drawings in a variety of media. Emphasis is placed on the traditional approach to drawing as practiced by masters such as Durer, Michelangelo, Da Vinci, Raphael, Rubens and others. Course may be taken three times for credit. (CSU) (UC) (Degree Credit)

## ART 182 F Basic Drawing (3)

Two hours lecture and four hours studio per week. An introduction to the fundamentals of representational drawing. Media used may include pencil, ink, charcoal, conte, pastels, watercolor, and mixed media. Designed for art majors. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## ART 183 F Representational Drawing (2)

Prerequisite: ART 182 F
One hour lecture and three hours studio per week. This course is a study in contemporary and traditional realism in the area of drawing. Media may include pencil, ink, charcoal, conte, pastel, watercolor, and/or mixed media. Recommended for art majors. (CSU) (UC) (Degree Credit)

## ART 184 F Expressive Drawing (2)

Advisory: ART 182 F or ART 186AF
One hour lecture and three hours studio per week. Surveys a variety of drawing styles introduced by artists whose mark-making itself communicates emotion, whether or not recognizable objects are depicted. Starting with Van Gogh and continuing through German Expressionism and Abstract Expressionism, the course leads toward the development of a personal, contemporary drawing style. Media covered include ink, pastel, watercolor, collage, and mixed media. (CSU) (UC) (Degree Credit) CSU GE

## ART 185 F Life Sculpture (3)

Two hours lecture and four hours studio per week. This class is an introduction to figurative sculpture with emphasis on accurate anatomical training in sculpture. Designed to develop an understanding of the human form, this class focuses on structure, gesture and detail. The skeleton, plaster casts, and the life model are used in this process. May be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## ART 186AF Beginning Life Drawing (3)

Two hours lecture and four hours studio per week. This course is an introductory course in drawing from the human figure. Course emphasis is on the development of a basic understanding of structure, anatomy and movement. The focus of this course is the accurate anatomy study through continued use of the skeleton and life models. Required for all art majors. (CSU) (UC) (Degree Credit) AA GE

## ART 186BF Intermediate Life Drawing (3)

Prerequisite: ART 186AF
Two hours lecture and four hours studio per week. An intermediate course in drawing the human figure. The course emphasis is on the refinement of basic skills, exercises and anatomy. Complex techniques reinforce the understanding gesture, structure and anatomy, through the continued use of the skeleton and life models. Recommended for all art majors. (CSU) (UC) (Degree Credit)

## ART 186CF Advanced Life Drawing (3) Prerequisite: ART 186BF

Two hours lecture and four hours studio per week. An advanced course in drawing the human figure, the emphasis of this course is a focused review of previous drawing exercises and the refinement of techniques. Advanced studio problems will be addressed, with historical and contemporary examples. Recommended for all art majors. (CSU) (UC) (Degree Credit)

## ART 187 F Watercolor for Non-Art Majors (2)

Letter Grade or Pass/No Pass option
One hour lecture and three hours studio per week. This is an introductory course in watercolor painting with emphasis on a wide variety of traditional and contemporary techniques and skills. Creative selfexpression is encouraged in still life, landscape, figurative, and abstract approaches. Media includes both transparent and opaque watercolor and related materials. May be taken twice for credit. (CSU) (UC) (Degree Credit) AA GE

## ART 188 F Watercolor Painting (3)

Two hours of lecture and four hours of studio per week. This course is designed specifically for the art major. This course will provide a better understanding of the structure, techniques, and vocabulary of transparent watercolor painting as well as encourage the student to develop conceptual, perceptual, and technical knowledge of all the design elements. A variety of traditional and contemporary methods are presented through demonstration, lecture, videotapes, individual instruction, critiques, class discussions, and field trips. Advanced students are encouraged to develop their own style and means of expression through a creative, experimental approach to watercolor painting. This class may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## ART 189AF Beginning Painting (3)

Two hours lecture and four hours studio per week. This course approaches painting as a creative process while developing the elementary skills of painting as a means of self-expression. In this course emphasis is upon the fundamentals of composition, color theory, and craftsmanship as applied to painting. Required by art majors. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## ART 189BF Intermediate Painting (3) Prerequisite: ART 189AF

Two hours lecture and four hours studio per week. This course is a continued study of painting techniques and media. As a creative process, emphasis is placed upon individual experimentation with multi-media application as well as continued skills development and conceptual application to issues in painting. Recommended for art majors. (CSU) (UC) (Degree Credit)

## ART 189CF Advanced Painting (3)

## Prerequisite: ART 189BF

Two hours lecture and four hours studio per week. This course constitutes a study of advanced painting problems stressing experimentation, traditional and contemporary painting composition and methods. Course may be taken twice for credit. The second semester of the class, emphasis is upon a body of work demonstrating individual conceptualism and material exploration. (CSU) (UC) (Degree Credit)

## ART 190 F Art Seminar (.5-2) <br> Prerequisite: ART 189AF

Lecture/Lab hours may vary with credit given. Various classes may be offered from semester to semester, which are designed to meet the interests and needs of students and faculty. Students may enroll up to a maximum of four semesters. (Not currently being offered - if interested, contact Division Office.) (UC credit limitation depending on course content) (CSU) (Degree Credit)

ART 194 F Studio Painting Lab (1-2)
Pass/No Pass only - Open Entry/Open Exit
Prerequisite: ART 189AF
Fifty-four hours of lab in the painting studio. The lab course provides the opportunity for the painting student to work on new or ongoing projects; to learn to operate studio equipment; to have available the supervision of a painting instructor for advice and guidance; to work with a peer group; and to expand and complete work for a portfolio. May be taken four times for credit. (CSU) (Degree Credit)

## ART 195 F Anatomical Figure Drawing (2)

One hour lecture and three hours studio per week. The course explains and demonstrates how a specific area of the human body is constructed, how it moves and how it looks in different positions. A full size human skeleton, plaster casts and slides of master's anatomy studies are used as reference. The lab consists of copying and analyzing a variety of anatomical studies to compile a note book representing all the components of the figure. This class serves the needs of the student in drawing, painting and sculpting the human figure. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## ART 196HF Honors Creative Arts - Art (3)

Three hours lecture plus one hour per week arranged in the attendance at museums, concerts, and theatrical performances. This course explores the nature of creativity through exposure to the performing arts, literature, and the fine arts. Honors students will make independent investigations into the various art forms and apply aesthetic theory to discover interrelationships between genres. Students who receive credit in this course may not receive credit in MUS 196HF or THEA 196HF. (CSU) (UC credit limitation) (Degree Credit) AA GE, CSU GE, IGETC

## ART 197 F Mural and Faux Painting (3)

Two hours lecture and four hours of studio lab per week. This course is for the beginning through advanced student intended to teach the fundamentals of faux (fake) finishes and mural painting. Students will learn how to execute a variety of finishes and create murals, how to bid jobs and how to work with a variety of materials. May be taken three times for credit. (CSU) (Degree Credit)

## ART 210 F Life Painting (3)

Prerequisite: ART 189 F and ART 186 F, or a portfolio review by the instructor
Two hours lecture and four hours lab per week. This course is an introduction to painting the human figure, nude and clothed. The emphasis is on realistic representation of the human form in oils using structure, color, value, lighting and composition. Historical and contemporary uses of the figure in art as well as various styles of painting will be explored. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## ART 212 F Asian Art History (3)

Three hours lecture and slide presentation per week. This course surveys the arts of China and Japan from Prehistory through the 19th century. It examines the role of the visual arts in relation to society, religion, and history, while identifying major themes and techniques in these arts. Classroom presentations are supplemented by gallery and museum visits. In a full semester course an additional 15 minutes per week will be spent in the art gallery, pro-rated per semester for short-term courses. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ART 213 F Pre-Columbian Art (3)

Three hours lecture per week. This course surveys the architecture, sculpture, painting and ceramics of Pre-Columbian Mexico, Central, North and South America from formative through post-classic times. Slide lectures, videos and museum visits will supplement the course. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ART 244 F Illustration (3)

Advisory: ART 182 F and ART 120 F
Two hours lecture and four hours lab per week. The lecture portion of the class covers problems of creating finished illustrations from thumbnail sketches to final art. Emphasis in this course is on illustration for printed media such as books, newspapers, and magazines, as well as conceptual design for industrial products, and illustration for the electronic entertainment, theme park, and motion picture industries. Projects are designed to prepare the student for the professional skills necessary in creating an industry appropriate portfolio of work. Course may be taken four times for credit. (CSU) (Degree Credit)

## ART 261 F Sculpture - Ceramics (2)

Prerequisite: ART 160 F or ART 150AF
One hour lecture and three hours studio per week. An exploration of the methods, limitations, and characteristics of various clays when used to create sculpture in the round and bas-relief. (CSU) (UC) (Degree Credit)

## ART 290 F Portfolio Preparation and Artwork

 Presentation (3)

Prerequisite: ART 120 F or ART 182 F, both with a grade of " $C$ " or better
Three hours lecture per week. This course will help Studio Arts and Design majors in the creation of a portfolio that will assist in the transfer to a BA or BFA University Art program. In addition, major emphasis is placed on the development of a professional portfolio and the quality of the artwork in it. Course may be taken twice for credit. (CSU) (Degree Credit)

## ART 299 F Art Independent Study (1-2)

One unit of credit will be awarded for each 54 hours of lab time. For advanced students who wish to pursue a particular area of art through individual study. Instructor approval needed. Course may be taken four times for credit. NOTE: Students must sign up with an instructor in the Art Dept before registering for this class. Completed forms must be in the Art Dept office by the second week of class. (CSU) (UC Credit Limitation depending on course content) (Degree Credit)

# Automotive Technology (AUTO) 

Technology \& Engineering Division

Office: Bldg 900, Room 910
714.992.7119

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

Associate in Science Degree<br>Automatic Transmission Specialist Certificate<br>Automotive Chassis Specialist Certificate<br>Automotive Maintenance Specialist Certificate<br>Automotive Management Certificate<br>Automotive Service Advisor Certificate<br>Automotive Technology Certificate<br>Emission Control Specialist Certificate<br>Engine Performance Specialist Certificate<br>Fabrication Specialist Certificate<br>Light Repair Specialist Certificate<br>Manual Drive Specialist Certificate

## Automotive Courses

## AUTO 131 F Automotive Fundamentals (4)

Four hours lecture and two hours demonstration and lab per week. Emphasis is placed on the basic operating principles, nomenclature, car care, inspection, preventive maintenance and minor repair procedures. (CSU) (Degree Credit) (For Industrial Arts Vocational Majors)

## AUTO 050 F Automotive Specialty Practice (2)

Corequisite: Concurrent enrollment in any automotive technology course
One hour lecture and up to six hours lab practice per week. Emphasis is placed on the development of skill in the specialty areas of the students' preparation. Lectures cover service department organization, job analysis and information relative to the employer, employee and customer relations. Course may be taken four times for credit. (Degree Credit)

## AUTO 051 F Internship in Automotive (1-4)

Corequisite: Any vocational automotive class
One hour lecture per week and five hours of supervised employment per week in an automotive dealership or independent service facility. An additional five hours per week of supervised employment is to be completed for each additional unit of credit. This course is designed to provide vocational learning opportunities through employment in an automotive servicing/repair business. No more than three units may be applied toward the degree or certificate. Course may be taken four times for credit. (Degree Credit)

## AUTO 055 F Automotive Business Management (5) Advisory: AUTO 131 F

Four hours lecture and three hours lab per week. The course covers the automotive service management operations of an automotive business/ dealership as related to service advisor/manager by focusing on the repair order as a legal document. It also covers the appointment system, telephone skills, warranties, communications strategies, product knowledge, selling skills, proactive customer handling, and multiple ways to reduce costs and improve profits. (Degree Credit)

## AUTO 060 F Automotive Powertrains (5)

## Advisory: AUTO 131 F

Four hours demonstrated lecture and four hours lab per week. Repair of the manual Rear Wheel Drive (RWD)/Front Wheel Drive (FWD) powertrains including the study of principles of operation, gears, bearings, drive lines, universal joints, CV joints, drive train electrical/electronic systems, and rear axles. The student will perform hands-on lab assignments. (Degree Credit)

## AUTO 065 F Automotive Electrical and Electronic Systems (5) <br> Advisory: AUTO 131 F

Four hours lecture and four hours lab per week. An introductory course in the concepts of the electrical system and the electronic control of the automobile. Course instruction will include lecture, demonstration and student application in the use of test equipment on simulator board and in-car diagnosis and repair with electrical diagrams and charts. Instruction for this class will closely parallel topics addressed on the National Institute for Automotive Service Excellence (ASE) Electrical Systems (A6) examination. (Degree Credit)

## AUTO 070 F Engine Reconditioning (7)

## Advisory: AUTO 131 F

Six hours demonstrated lecture and three hours lab per week. This course covers operating principles, nomenclature, design, diagnostic inspection and reconditioning procedures on contemporary high-tech automotive engines. Use of a computer database and engine improvement software is also covered. (Degree Credit)

## AUTO 072 F Automotive Engine Performance (7)

## Advisory: AUTO 131 F

Six hours demonstrated lecture and three hours lab per week. Instruction is given on engine tune-up, diagnosis, and repair of the electronic ignition system, emissions control system, and electronic powertrain management systems, including electronic fuel injection. Instruction will be given to prepare the student for the National Institute of Automotive Service Excellence (ASE) Engine Performance (A8) test. Modern test equipment will be utilized in the lab sessions. (Degree Credit)

## AUTO 073 F Brake Systems Repair (7)

## Advisory: AUTO 131 F

Six hours demonstrated lecture and three hours lab per week. Operation, nomenclature, diagnosis, adjustment and repair procedures of automotive brake components, including electronically controlled anti-lock braking systems. Course instruction will include lecture, demonstration, and student application on vehicles in the lab. Instruction for this class will closely parallel topics addressed on the National Institute for Automotive Service Excellence (ASE) Brake Systems (A5) examination. (Degree Credit)

## AUTO 081 F Engine Rebuilding and Repair (8)

Advisory: AUTO 131 F
Six hours demonstrated lecture and six hours lab per week. Operating principles, nomenclature, design, and repair procedures on the modern automotive engines. Emphasis is upon procedures of rebuilding an engine while out of the chassis and repairing while in the chassis. Instruction for this class will closely parallel topics addressed on the National Institute for Automotive Service Excellence (ASE) Engine Repair (A1) examination. (Degree Credit)

## AUTO 082 F Automotive Engine Performance and Drivability (8) <br> <br> Advisory: AUTO 131 F

 <br> <br> Advisory: AUTO 131 F}Six hours demonstrated lecture and six hours lab per week. Engine tune-up, diagnosis, and repair of the ignition system (electronic, distributor-less, and electromechanical), fuel injection system, including the computer control system, and the emission control system. Diagnosis of engine performance and drivability problems is emphasized. Instruction is provided on domestic and imported vehicles. Modern test equipment will be utilized in lab sessions where live cars are repaired. Instruction for this class will closely parallel topics addressed on the National Institute for Automotive Excellence (ASE) Engine Performance (A8) examination. Course may be taken twice for credit. First semester students will concentrate on General Motors electronic control systems; those repeating the course will concentrate on Ford, Chrysler and import vehicle electronic control systems. (Degree Credit)

## AUTO 083 F Brake and Suspension Systems Repair (8)

Advisory: AUTO 131 F
Six hours demonstrated lecture and six hours lab per week. Operation, nomenclature, adjustment and repair procedures of automotive brake, suspension, and steering systems. Instruction will closely parallel topics addressed on the National Institute for Automotive Service Excellence (ASE) Suspension and Steering (A4) and Brakes (A5) examinations. (Degree Credit)

## AUTO 084 F Automatic Transmission (8)

## Advisory: AUTO 131 F

Six hours demonstrated lecture and six hours lab per week. Technical principles of automatic transmissions. Theory and principles of operation of planetary gear systems and hydraulic systems of automatic transmission. Operating principles, overhaul and adjustment and servicing procedures of automatic transmissions. Design and operation of fluid couplings of torque converters. Students to perform testing, diagnosis, maintenance, and overhaul on various types of automatic transmissions including electronically controlled transmissions and transaxles. Instruction for this class will closely parallel topics addressed on the National Institute for Automotive Service Excellence (ASE) Automatic Transmission/Transaxle (A2) examination. (Degree Credit)

## AUTO 086 F Automatic Transmission Fundamentals (3) Advisory: AUTO 131 F

Two hours lecture and three hours lab per week. Fundamentals of automatic transmissions, theory and operation of planetary gears and related gear systems, principles of hydraulic systems, design and operation of torque converters and lock-up type converters, and operation of electronic controls. Emphasis will be on rear wheel drive transmissions. Diagnosis and maintenance fundamentals, along with service, adjustment and overhaul procedures, also will be emphasized. Instruction for this class will closely parallel topics addressed on the National Institute for Automotive Service Excellence (ASE) Automatic Transmission and Transaxle (A2) examination. The course may be taken twice for credit. First semester students will study hydraulic controlled transmission; students repeating the course will study electronically controlled transmissions. (Degree Credit)

## AUTO 088 F Fuel Systems and Advanced Drivability Diagnosis (4) <br> Advisory: AUTO 131 F

Three hours demonstrated lecture and three hours lab per week. Instruction includes the theory and principles of engine control systems diagnosis and automotive emission control systems. This course prepares students for the National Institute of Automotive Service Excellence (ASE) A8 and L1 tests. Modern diagnostic equipment including the exhaust gas analyzer, digital meters, scan tools, and digital oscilloscope will be used in lab sessions. (Degree Credit)

## AUTO 089 F Automotive Air Conditioning (4)

Advisory: AUTO 131 F
Four hours demonstrated lecture and two hours lab per week. Theory and principles of automotive air conditioning. Study of design features of various type systems. Demonstrated lectures on servicing, maintenance, diagnosis, and repair procedures. Students to perform on lab units or on other vehicles. (Degree Credit)

## AUTO 090 F Emission Control Systems and Advanced Diagnosis (6)

## Advisory: AUTO 131 F

Six hours lecture and two hours lab per week. Instruction includes the theory and principles of automotive emission control systems. This course prepares students for the State of California Smog Check Mechanic Test and for the National Institute for Automotive Service Excellence (ASE) A8 and L1 examinations. Modern diagnostic equipment including the exhaust gas analyzer, digital meters, and engine oscilloscope will be used in lab sessions. (Degree Credit)

## AUTO 091 F Cylinder Head Repair (4)

Three hours demonstrated lecture and three hours lab per week. Covers operating principles, nomenclature, design and repair procedures on modern cylinder heads. Emphasis is on cylinder head repair procedures that are performed by small garages, including diagnosis, bench work and removal and installation. (Degree Credit)

## AUTO 096 F Performance Technology (4)

## Advisory: AUTO 131 F

Three hours lecture and three hours lab per week. Practical applications of performance and durability pertaining to motorized vehicles. Covers areas of engine, drivelines, brakes, and suspension necessary for better performance and increased safety and durability. (Degree Credit)

# Biology (BIOL) 

Natural Sciences Division<br>Office: Bldg 1000<br>714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

## Associate in Arts Degree <br> Biological Technician — Associate in Science Degree <br> Biology Courses

## BIOL 060 F Fundamentals of Biology (3)

Four hours lecture/discussion per week for twelve weeks. This course is intended to provide an introduction to the fundamental concepts and terminology necessary for the basic understanding of science and especially biology. This class is designed for students with limited high school background in science that wish to take college level biology classes. Topics covered will include scientific method, taxonomic system, basic chemistry, cells, energetics, heredity, ecology, and evolution.

## BIOL 100 F Principles of Biology (4)

Four hours lecture or equivalent per week. This course is an introductory non-majors course that will 1) emphasize the fundamental understanding of basic biological principles, 2) illustrate the structure and function of living organisms and their relationship to the physical world, and 3) develop the student's ability to make effective decisions regarding contemporary issues in natural sciences. Topics include 1) the structure and function of life at the cellular and organismic levels, 2) metabolism, photosynthesis and energetics, 3) cell division and animal development, 4) classical and molecular genetics, 5) biotechnical development and applications, 6) evolution and adaptations of living organisms, and 7) ecological relationship and environmental conservation. (CSU) (UC Credit Limitation: BIOL 100 F and 101 F combined: maximum credit one course) (Degree Credit) CSU GE, IGETC

## BIOL 101 F General Biology (5)

Four hours lecture and three hours lab per week. This integrated lecturelab course will 1) emphasize the fundamental understanding of basic biological principles, 2) illustrate the structure and function of living organisms and their relationship to the physical world, and 3) develop the student's ability to make effective decisions regarding contemporary issues in natural sciences. Lecture topics include 1) the structure and function of life at the cellular and organismic levels, 2) metabolism, photosynthesis and energetics, 3) cell division and animal development, 4) classical and molecular genetics, 5) biotechnical development and applications, 6) evolution and adaptations of living organisms, and 7) ecological relationships and environmental conservation. (CSU) (UC; no UC credit if taken after a 200 level Biology) (Degree Credit) AA GE, CSU GE

## BIOL 101HF Honors General Biology (5)

Four hours lecture and three hours lab per week. This integrated lecturelab course will 1) emphasize the fundamental understanding of basic biological principles, 2) illustrate the structure and function of living organisms and their relationship to the physical world, and 3) develop the student's ability to make effective decisions regarding contemporary issues in natural sciences. Lecture topics include 1) the structure and function of life at the cellular and organismic levels, 2) metabolism, photosynthesis and energetics, 3) cell division and animal development, 4) classical and molecular genetics, 5) biotechnical development and applications, 6) evolution and adaptations of living organisms, and 7) ecological relationships and environmental conservation. The honors section will include extra computer simulations, reading, writing assignments and field trips. (CSU) (UC; no UC credit if taken after a 200 level Biology) (Degree Credit) AA GE, CSU GE, IGETC

## BIOL 102 F Human Biology (3)

Three hours lecture per week. Integrated lectures, discussions and films are designed to study modern biological chemistry, cellular basis of life, energetics, demography, ecology and evolution. Included in the course are discussions of current topics on environmental, nutritional and public health issues as they relate to the human condition. (CSU) (UC; no UC credit if taken after BIOL 101 F or 101HF) (Degree Credit) AA GE, CSU GE, IGETC

## BIOL 102LF Human Biology Lab (1)

## Corequisite: BIOL 102 F

Three hours lab per week. This lab supplements the BIOL 102 F Human Biology lecture. This is a general education course for non-biology majors providing direct participation in experiments, demonstrations, and discussions. Topics include: elements of human anatomy and physiology, fitness, nutrition, disease, elements of human heredity and environmental adaptations. (CSU) (UC; no UC credit if taken after BIOL 101 F or 101 HF ) (Degree Credit) CSU GE, IGETC

## BIOL 104 F Biology of Insects and Spiders (3)

Three hours lecture per week. This course familiarizes students with basic biological principles as illustrated by insects and spiders. Special emphasis is placed on their relations to plants and animals including humans. Living and preserved insects and spiders and many other visual aids will be used to help describe in detail life cycles, evolution, adaptations to local environment and the major taxonomic groups. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## BIOL 108 F Plants and People (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week. This class introduces the history, uses of plants and plant products that have played major roles in the molding of civilization. Plants used by native Americans will be observed and studied. Lectures are integrated with discussion, demonstration and handson learning activities. Specific topics include plant structure, function, origins of agriculture and domestication. Historical and contemporary uses of important plant products such as drugs, medicines, oils, resins, beverages, foods and industrial products are included. The nutritional values of major food plants are evaluated. (CSU) (UC) (Degree Credit) CSU GE, IGETC

BIOL 109 F Genetics and Biotechnology in Society (3)
Three hours lecture per week. This introductory survey course will cover the basic concepts of heredity and current advanced in biotechnology, such as cloning, recombinant DNA technology, DNA fingerprinting and gene therapy. This course will emphasize the applications, social consequences and ethical implications of biotechnology in medicine and agriculture. (CSU) (UC; no UC credit if taken after a 200 level Biology) (Degree Credit) AA GE, CSU GE, IGETC

## BIOL 109LF Genetics and Biotechnology in Society Lab (2)

Six hours lab per week. A semester course introducing students to the modern biological lab. Various instruments used to sample, measure, and collect data under lab and natural conditions. Course includes units on lab safety; basic microbiology; culture techniques; molecular analysis; and applications of the computer. Class emphasizes practical hands-on experience and an understanding of the basic principles behind the technologies. (CSU) (Degree Credit)

BIOL 141 F Marine Mammal Biology and Conservation (3)
Three hours lecture per week. This course will provide an overview of the diversity of marine mammal species, along with their natural history, behavior, physiology, and ecology. It will introduce students to the techniques used to study marine mammals, and their applications to conservation and management issues. Required field trips are included. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## BIOL 170 F Organismal Biology (5)

Prerequisite: High School Biology with a grade of " $B$ " or better and MATH 040 F with a grade of " $C$ " or better
Advisory: BIOL 101 F with a "C" or better or advanced placement high school biology with a grade of 3 or better on the placement exam Three hours lecture, three hours lab, and one hour of discussion per week. This course is designed to familiarize students with the diversity and biology of living organisms. Integrated lab and lecture sessions emphasize the classification of organisms with respect to the evolution of anatomical and physiological adaptations. There are required field trips for this class. This class is designed for Biological Science majors in transfer programs. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## BIOL 222 F Marine Biology (3)

Prerequisite: A biological science lab course with a grade of " $C$ " or better
Two hours lecture and three hours lab and field work per week. This course presents an overview of life in the sea. Lectures, labs and fieldwork provide an introduction to the diversity of marine organisms and the physical and biological processes that influence their structure, life history, behavior, and distribution. An emphasis is placed on the interactions of these organisms and processes in a variety of marine habitats. Marine ecology and conservation are also discussed. Both lab and field exercises will be used to provide hands-on experience with marine organisms, habitats, and research techniques. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## BIOL 266 F General Zoology (5)

Three hours lecture and six hours lab per week. This course is designed to familiarize students with the animal kingdom. Integrated lab and lecture sessions emphasize the evolution of anatomical, physiological and behavioral adaptations. This class is designed for Biological Science majors in transfer programs. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## BIOL 268 F General Botany (5)

Prerequisite: A biological science lab course with a grade of "C" or better
Three hours lecture and six hours lab/field work per week. Study of structure and function of roots, stems, leaves, flowers, fruits, and seeds of the flowering plants. Characteristics and life cycles of some of the algae, fungi, mosses, ferns, club mosses, and cone-bearing plants are covered. Environmental relationships, classification, genetics, propagation, and the applications of these to agriculture and forestry are included. (CSU) (UC) (Degree Credit) CSU GE, IGETC

BIOL 272 F Cell and Molecular Biology (4)
Prerequisite: BIOL 170 F and one semester of college chemistry with a grade of "C" or better
Three hours of lecture/discussion and three hours of lab per week. Integrated lectures and laboratories are designed to 1) develop a strong foundation in biological facts, concepts, and theoretical models, 2) extend the student's ability to solve scientific problems through data collection and analysis, and 3) provide training in a variety of lab techniques and instrumentation used in modern biology. Discussion topics which are supported by lab experiences include (a) the molecular basis of life, (b) tissue, (c) enzyme kinetics, (d) gene expression, (e) development, and (f) immunology. Designed for Biological Sciences majors in transfer programs. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## BIOL 274 F General Ecology (4)

## Prerequisite: BIOL 170 F

Three hours classroom lecture, and three hours of lab/field work per week. Two weekend field trips are required. Field trips, including an overnight trip, are required. This course is designed to familiarize students with basic principles governing interactions between organisms and the environment. Integrated lectures, field trips, and lab sessions emphasize basic ecological principles and relationships. These include identification of plants and animals, community analysis, environmental survey techniques, laws of thermodynamics, behavioral and physiological adaptations of organisms, and ecological models. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## BIOL 276 F Genetics and Evolutionary Biology (4)

Prerequisite: BIOL 272 F or equivalent
Three hours lecture and three hours lab per week. This course is a comprehensive survey of the processes and products of genetics. Through a review of experimental evidence, students evaluate the basic tenets of molecular, transmission and population genetics, and use the science of genetics to appraise the relationship of genetics to the processes and products of microevolution and macroevolution. Lab topics include DNA replication/repair, transcription and translation and regulation of gene expression. The philosophy and methods of science, as well as the theory of evolutionary thought are integrated throughout. Field trips may be required. (CSU) (UC) (Degree Credit)

BIOL 299 F Biological Science Independent Study (1)
Prerequisite: A 200-level course in the Biological Sciences Division with a grade of " $B$ " or better
Lab and/or field investigations with the guidance of members of the Life Sciences faculty. Hours to be arranged. Primarily for majors in Life Sciences who wish to increase their knowledge of the sciences through individual study and small group conferences. Independent lab research problems with staff supervision may be approved. Outside reading and written report required. Elective credit in the sciences area. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

# Business (BUS) 

## Business \& CIS Division

Office: Bldg 300
714.992.7032

Dean: Ann Hovey
Website: http://bizdiv.fullcoll.edu

Business Administration Associate in Arts Degree Business Management Associate in Science Degree Business and Technology Skills Certificate<br>Business Management Certificate<br>E-Business Development Certificate<br>Entrepreneurship Associate in Science Degree<br>Entrepreneurship Certificate<br>International Business Management Associate in Science Degree<br>International Business Certificate<br>International Business Management Certificate<br>Managerial Communications Certificate<br>Marketing Management Associate in Science Degree<br>Project Management Certificate

## Business Courses

## BUS 021 F The Securities Market (1)

Pass/No Pass only
One hour lecture per week. This course provides an overview of the securities market. Topics to be discussed include types of markets, economic benefits, regulation, types of securities, participants in the market, brokerage houses, types of trades and orders, sources of investment information, and services offered by various types of investment professionals. (Degree Credit)

## BUS 022 F Common Stock (1)

Pass/No Pass only
One hour lecture per week. This course is an introduction to fundamental and technical analysis as it relates to common stock. Topics to be discussed include total return concept, return-risk characteristics, rights of stockholders, advantages and disadvantages of stock ownership, and basic valuation methods. An introduction to technical analysis with emphasis on chart patterns and technical indicators is also covered. (Degree Credit)

## BUS 023 F Fixed Income Securities (1)

Pass/No Pass only
One hour lecture per week. This course covers the different types of fixed-income securities and their characteristic features, the rights of security holders, and basic valuation approaches. (Degree Credit)

## BUS 024 F Stock Options (1)

Pass/No Pass only
Advisory: BUS 021 F
One hour lecture per week. This course provides an introduction to put and call options. Topics to be discussed include the options market, mechanics of investing in options, basic options strategies, and returnrisk characteristics. (Degree Credit)

## BUS 025 F Investment and Retirement Plans (1)

## Pass/No Pass only

One hour lecture per week. This course provides the fundamental concepts of mutual fund investing. The different types of investment companies, unique features, and advantages and disadvantages are covered. An overview of tax-deferred retirement plans is presented. Focus will be on managing self-directed IRA's and Keogh Plans. (Degree Credit)

## BUS 055 F Business English (3)

Three hours lecture per week. A basic business English review course intended for the vocational business student. Practice is provided in essentials of grammar, punctuation, English usage, capitalization, number usage, sentence structure, and spelling. Basic principles of letter writing are introduced. (This course does not meet English requirements for transfer to CSU)

## BUS 061 F Business Skills Internship (1-4)

Pass/No Pass only
One hour lecture per week and five hours of supervised employment or volunteer work per week in business or industry for each unit for a maximum of 4 units ( 20 hours). This course provides vocational learning opportunities for a student through employment in business or industry. Students must have completed 7 units or 20 percent of the Business and Technology Skills Certificate prior to enrolling in this course. Students must be enrolled in at least 6 units of required or restricted courses, which may include the internship course, in the Business and Technology Skills Certificate. (Degree Credit)

## BUS 090 F Current Issues in Business (.5-3)

Zero to three hours lecture plus 0-9 hours lab. This course offers timely business-related topics designed to enhance job skills, expand the student's knowledge of the business world, and increase employment opportunities. Unit credit may range from .5 to 3 units in any given semester. Consult the class schedule to verify specific topic area and credit offered for a particular semester. May be taken for credit four times.

## BUS 100 F Introduction to Business (3)

Three hours lecture per week. An introductory business course designed to give an understanding and appreciation of the American business/ economic system. The course surveys the nature of business, ownership, physical factors, personnel relations, marketing, finance, corporate ownership, management control, business regulations, law, taxation, and the international business environment. (CSU) (UC) (Degree Credit)

## BUS 101 F Personal Financial Management (3)

Three hours lecture per week. This basic course covers the proper management of personal incomes and expenditures. The course includes a study of inflation and business cycles; 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. (CSU) (Degree Credit)

BUS 111 F Business Communications (3)
Three hours lecture per week. This course provides instruction and practice in writing in English usage, writing business letters, interoffice memoranda, and reports, Business English, mechanics, and appearance. Included are letters of inquiry, order and acknowledgement, sales, application, claims and adjustment and collection. One original research report is required. Meeting the needs of the readers underlies each section of study. (CSU) (Degree Credit) AA GE

## BUS 131 F Principles of International Business (3)

Three hours lecture per week. This course provides an overview of the global business environment by examining the similarities and differences in comparison with the United States of doing business in various contemporary foreign cultural settings. It focuses on the differences of the economic, political, financial, and legal systems. It also discusses the ways of managing these differences through understanding the principles of marketing, exporting, financing, production, and human resource management in the context of a multicultural business environment. This course is recommended for all business management/international business majors. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (Degree Credit) AA GE, MULT CULT REQ

## BUS 132 F Principles of Import/Export (3)

Three hours lecture per week. This course provides a thorough and practical treatment of the importing and exporting activities involved in international trade. The course is designed to acquaint the student through a comprehensive approach to import/export as a continuous activity. It allows gaining firsthand how-to knowledge for those seeking to either get familiarized or work in the international trade industry, contemplating to start an import/export activity, or for managers wishing to expand their company's market opportunities. Special emphasis is placed on agencies involved, terms and conditions, documentation requirements and formalities, transportation, insurance, banking and finance, marketing, and sources of information. (CSU) (Degree Credit)

## BUS 151 F Business Mathematics (3)

Prerequisite: MATH 020 F or math skills clearance
Three hours lecture per week. Reviews the essentials of business arithmetic in fundamental computation and problem solving. Includes problems in interest and bank discount, taxation, business ownership, retailing, annuities, sinking funds, compound interest, and amortization. This course is recommended for all Business majors; however, it does not meet the GE math requirement for transfer to CSU. (CSU) (Degree Credit) AA GE

## BUS 162 F Business Economics (3)

Three hours lecture per week. Economic principles and problems of today's business world are emphasized. An elementary and practical course intended to acquaint the student with the present-day operation of the American free enterprise system. Business terminology, price competition, labor problems, business cycles, national income, public and international finance, and government control are emphasized. This course provides an independent, business-related study of economics for the student of business management courses. (CSU) (Degree Credit) AA GE

## BUS 170 F Principles of E-Business (3)

Three hours lecture per week. This course will provide a comprehensive introduction to the field of e-business and integration of the Internet into existing business, taking into consideration the four critical infrastructures: technology, capital, public policy and media. This course focuses on presenting a working definition and framework for the study and practice of electronic commerce, e-business and Internet integration strategies. (CSU) (Degree Credit)

## BUS 180 F Small Business Management (3)

Three hours lecture per week. This course studies various small business enterprises including retail, wholesale, manufacturing, service, and home-based business. Factors in business success and advantages and disadvantages of business ownership are analyzed. This course covers the problems encountered in organizing and operating a small business, including financial sources, accounting information, marketing and other related information. (CSU) (Degree Credit)

## BUS 181 F Business Plan Development (2)

One and one-half hour lecture and one and one-half hour lab per week. This course focuses on strategies and techniques to write an effective business plan for small businesses. Students will research, evaluate, and prepare a comprehensive business plan, utilizing business planning software. (CSU) (Degree Credit)

## BUS 182 F Doing Business Online (2)

One and one-half hour lecture and one and one-half hour lab per week. This course will prepare students to use the Internet with a business or home-based business. Emphasis will be placed on planning and organizing the Internet business. Students will learn how to connect to the Internet; create a secure Web site; organize E-mail, use FTP and Telnet; create a Web-based business or integrate the Internet in an existing business; and write an Internet business plan. (CSU) (Degree Credit)

## BUS 201 F Personal Investments (3)

Three hours lecture per week. This course provides a comprehensive study of stocks, bonds, and related securities that includes a detailed study of the nature of these securities and their markets. Emphasis is placed on personal investment objectives for growth, growth with incomes, and income with preservation of capital together with taxes that affect investment policy. (CSU) (Degree Credit)

BUS 211 F Writing for Business (3)
Prerequisite: ENGL 100 F or ENGL 100HF with a grade of " $C$ " or better; the prefix for this course is BUS but this writing course has sequential skills to those taught in ENGL 100 F or ENGL 100HF
Three hours lecture per week. This course is an introduction to communication skills and knowledge needed in organizations today. The course will include communication fundamentals; ethical, legal, and multicultural issues; correspondence applications; employment communication; oral and nonverbal communication; report writing; management presentations; team/group building skills; research methods; and running effective meetings and conferences. Computer-mediated applications will be presented throughout the course. (CSU) (Degree Credit)

## BUS 211HF Honors Writing for Business (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F or ENGL 100HF
Three hours lecture per week. An intermediary course to communication skills and knowledge needed in organizations. This course will include communication fundamentals; ethical, legal and multicultural issues; correspondence applications; employment communication; oral and nonverbal communication; report writing; management presentations; team/group building skills; research methods; and running effective meetings and conferences. Computer-mediated applications will be presented throughout the course. As an Honors course, this class will use enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. (CSU) (Degree Credit)

BUS 224 F International Marketing (3)
Three hours lecture per week. This course provides an analysis of worldwide marketing opportunities through a consideration of political, legal, economic, and cultural factors in the international context. Special emphasis will be placed on international market research, product development and positioning, pricing, distribution, and promotion. Recommended for students pursuing business management and international business degrees. (CSU) (Degree Credit)

## BUS 225 F International Management (3)

Three hours lecture per week. This course provides practical knowledge with specific applications in international business management. Topics include import/export management, international financial management, foreign join venture, foreign joint venture, foreign licensing and franchising, and countertrade. The course combines integrated text materials with carefully selected comprehensive case studies that are designed to demonstrate the practical experience of firms of all sizes as they come to grips with an increasingly competitive global environment. Recommended for students pursuing business management and international business degrees. (CSU) (Degree Credit)

## BUS 240 F Legal Environment of Business (3)

Three hours lecture per week. This course is an introduction to the legal environment in which a business firm operates. Topics include an introduction to the American legal system, contracts, torts, product liability, forms of business organization, trade regulation, labor law, environmental law, and international business law. (CSU) (UC Credit Limitation) (Degree Credit) AA GE

BUS 240HF Honors Legal Environment of Business (3) Letter Grade or Pass/No Pass option
Three hours lecture per week. This course is an introduction to the legal environment in which a business firm operates. Topics include an introduction to the American legal system, contracts, torts, product liability, forms of business organization, trade regulation, labor law, environmental law, and international business law. As an Honors course, students will conduct independent legal research and prepare class presentations of court cases and legal arguments. This class will use the Socratic method of instruction. (CSU) (UC Credit Limitation) (Degree Credit)

## BUS 241 AF Business Law (3)

Three hours lecture per week. This course is an introduction to business law principles and cases, including a review of the classes and sources of law, agencies for enforcement, court procedure, and civil and criminal liability. The major subject area studied is the law of contracts. A special study is made of sales of goods based upon the Uniform Commercial Code with emphasis placed on consumer protection. (CSU) (UC Credit Limitation) (Degree Credit) AA GE

## BUS 241BF Business Law (3)

Prerequisite: BUS 241AF
Three hours lecture per week. This course is a continuation of BUS 241AF Business Law with emphasis on business organizations. Areas of study include commercial paper, agency employment, partnerships, corporations, antitrust, securities, and bankruptcy law. (CSU) (UC Credit Limitation) (Degree Credit)

## BUS 242 F International Business Law (3)

Three hours lecture per week. This course provides an introduction to the legal and cultural issues raised in formulating an international business strategy and engaging in international business transactions. Topics include international contracting, export-import, licensing and technology transfer, and sales of services. This course fulfills the Multicultural Requirement for graduation. (CSU) (Degree Credit) AAGE, MULT CULT REQ

## BUS 251 F Business Finance (3)

Three hours lecture per week. An introductory course to the field of finance, the focus is on the practical significance of the fundamental concepts of finance. The class will include the analysis of financial markets, financial statements, planning and control, working capital management, time value of money, valuation models, capital budgeting, dividend policy, and mergers and acquisitions. (CSU) (Degree Credit)

## BUS 262 F Principles of Management (3)

Three hours lecture per week. This course covers the principles, methods, and procedures essential to the successful management of human and financial resources. Planning, decision making, staff, directing, communication, controlling and the application of managerial skills are discussed. (CSU) (Degree Credit)

## BUS 266 F Human Relations in Business (3)

Three hours lecture per week. This course examines human behavior in the work place and the most important and useful practices found in the management of organizations. Typical employment situations are analyzed for the purpose of establishing sound practices in the working environment. Topics include communications, leadership development, job conflict, motivation, human relations training, workforce diversity, group dynamics, job politics, organizational change, and stress management are covered. (CSU) (Degree Credit) AA GE

## BUS 267 F Principles of Supervision (3)

Three hours lecture per week. A course designed for first-line, new, or future managers covering the skills required to effectively supervise and manage employees in organizations. This class emphasizes the supervisor's need for a working understanding of the functions of management and the practical supervisory skills relating to employees, work teams, workplace diversity, ethics and special concerns. Topics include the role and function of supervisors, recruitment and evaluation of workers, task delegation, motivation, employee discipline, training and professional development, conflict management, labor relations and legislation, communication, employee safety, and time management. (CSU) (Degree Credit)

## BUS 269 F Managing Business Projects (2)

Two hours lecture per week. An introductory course in the study of project management. This course covers the principles and methods necessary to create an effective plan and schedule for a project; the techniques to monitor, control, and measure performance of the project once it is underway; and the relationships of timing, costs, and resources (including personnel). (CSU) (Degree Credit)

BUS 271 F Leadership and Business Ethics (3)
Three hours lecture per week. This applications-oriented course focuses on leadership and ethics in business today. It addresses leadership models perspectives and practices, and the complexities and principles of ethical business issues. Leadership topics include leading and motivating individuals and work teams, workplace diversity, followership, selfassessment and skills development. Business ethics topics include ethical leadership and decision making, organizational value systems and identifying and developing tools needed to effectively deal with ethical dilemmas. (CSU) (Degree Credit)

## BUS 290 F Managerial Communications (3)

Three hours lecture per week. This course covers a variety of communication challenges that typically arise in management and emphasizes the development of communication skills to successfully manage individuals and groups. Topics include leadership and management skills, developing work relationships, issues of diversity, managing meetings, making presentations, interviewing, performance appraisals, negotiation, conflict resolution, using electronic communications technology, and group communication strategies. (CSU) (Degree Credit)

## BUS 298 F Advanced Topics in Business (.5-3)

Zero to three hours lecture and/or zero to nine hours lab per week. This course offers timely business-related advanced concepts designed to enhance job skills, expand the student's knowledge of the business world, and increase employment opportunities. Unit credit may range from .5 to 3 units in any given term. Consult the class schedule to verify specific topic area and credit offered for a particular term. (CSU) (Degree Credit)

## Chemistry (CHEM)

Natural Sciences Division<br>Office: Bldg 1000<br>714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

## Associate in Arts Degree

## Chemistry Courses

## CHEM 100 F Chemistry for Daily Life (4)

Three hours lecture and three hours lab per week. The focus is on the practical significance of the fundamental concepts of chemistry in the context of societal, political and economic issues that impact our world. Units may include, but are not limited to the following: the chemistry of the atmosphere and water, fission and fusion, energy, chemistry, and society, pharmaceutical, new materials, the chemistry of nutrition and agriculture. Student participation is stressed individually and in groups, through written and oral assignments. The lab provides hands-on experience with chemical phenomena. The course is designed for the non-science major seeking a lab science. (CSU) (UC; no credit if taken after CHEM 111AF.) (Degree Credit) AA GE, CSU GE, IGETC

## CHEM 101 F Introduction to Chemistry (5)

Prerequisite: MATH 040 F with a grade of " $C$ " or better
Four hours of lecture, one hour problem solving, three hours of lab per week. This introductory course emphasizes the principles of inorganic and organic chemistry and includes a lab. It will meet physical science transfer requirements and is required of numerous allied health sciences majors. (CSU) (UC Credit Limitation: no credit if taken after CHEM 111AF) (Degree Credit) AA GE, CSU GE, IGETC

## CHEM 103 F Chemistry in a Changing World (3)

Three hours lecture per week. This course is intended for non-science students seeking general education credit in a physical science course without a lab. The course emphasizes basic principles of chemistry and their relationship to the modern world. This course will foster an interest in science by preparing students to make effective decisions, and by developing thinking skills that can be applied to challenges in a changing world. Topics include air and water pollution, energy resources, basic biochemistry, and current scientific developments involving chemistry. (CSU) (UC Credit Limitation: no credit if taken after CHEM 111AF) (Degree Credit) AA GE, CSU GE, IGETC

## CHEM 107 F Elementary Chemistry (5)

Prerequisite: MATH 040 F with a grade of " $C$ " or better
Four hours lecture, three hours lab, and one hour problem solving per week. This course is strongly recommended for students who have not had high school chemistry or who earned a grade of "C" or less in the high school course. The fundamental principles of chemistry are stressed, with emphasis on the chemistry of inorganic compounds. Includes atomic structure, chemical bonding, descriptive chemistry, stoichiometry, gas laws, solutions, equilibrium and redox. This course is intended to prepare students specifically for 111AF/111BF General Chemistry. Lab work supports topics of Chemistry 107 F. (CSU) (UC Credit Limitation; no credit if taken after CHEM 111AF) (Degree Credit) AA GE, CSU GE, IGETC

## CHEM 111 AF General Chemistry (5)

Prerequisite: CHEM 107 F with a grade of "C" or better or a passing score on the Chemistry Proficiency Test; and MATH 040 F with grade of "C" or better or two years of high school algebra
Three hours lecture, two hours of problem solving, three hours lab, and one hour discussion per week. Lecture topics include: course introduction, chemical reactions and stoichiometry; thermochemistry and calorimetry; atomic structure and chemical periodicity; chemical bonding; molecular structure; gases; physical properties of solids, liquids and solutions. Lab work supports topics of Chemistry 111AF. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## CHEM 111BF General Chemistry (5)

Prerequisite: CHEM 111AF with a grade of " $C$ " or better
Three hours lecture, two hours of problem solving, three hours lab, and one hour discussion per week. Chemistry lecture topics are selected from kinetics, equilibria, acid-base, thermodynamics, electrochemistry, transition metals and coordination compounds. Lab work supports topics of Chemistry 111BF. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## CHEM 200 F Elementary Organic Chemistry (3)

Prerequisite: CHEM 111AF with a grade of " $C$ " or better
Three hours lecture per week. This is a brief introductory organic chemistry course intended for students majoring in areas other than chemistry. Emphasis is upon nomenclature, structure, reactivity, chemical and physical properties, reaction mechanisms, and structure determination using spectroscopy. (CSU) (UC credit limitation) (Degree Credit)

## CHEM 201 F Basic Concepts of Organic and Biochemistry (5)

Prerequisite: CHEM 101 F with a grade of " $C$ " or better
Four hours lecture, one hour of problem solving, two hours lab, and one hour discussion per week. This course is the second semester of a two semester sequence (CHEM 101 F and CHEM 201 F ). This course is a study of organic chemistry: structures, nomenclature, reactions and functions of organic and biochemical compounds; cell structure, metabolism, bioenergetics, biochemical genetics, and mechanisms of vitamin and enzyme action. This course is designed for the health professions. (CSU) (UC credit limitation) (Degree Credit)

## CHEM 211AF Organic Chemistry (5)

Prerequisite: CHEM 111BF with a grade of " $C$ " or better
Three hour lecture, four hours lab, and two hours discussion per week. This course is the first part of a full year organic chemistry course designated primarily for chemistry majors but strongly recommended for premedical, pre-dental, pre-veterinary, pre-chiropractic, and biology majors. Emphasis is upon fundamental concept and application to molecular structure and chemical reactivity. Considerable stress is placed upon reaction mechanism, energetics, syntheses, stereochemistry, and molecular spectroscopy. Lab work includes techniques such as distillation, extraction, chromatography, and synthesis and qualitative analysis. (CSU) (UC Credit Limitation) (Degree Credit)

## CHEM 211 BF Organic Chemistry (5)

Prerequisite: CHEM 211AF with a grade of " $C$ " or better
Three hour lecture, four hours lab, and two hours discussion per week. This course is the second part of a full year organic chemistry course designed primarily for chemistry majors but strongly recommended for pre-medical, pre-dental, pre-veterinary, pre-chiropractic, and biology majors. Aliphatic and aromatic compounds are integrated with the functional group approach maintained. Considerable emphasis is placed upon reaction mechanism, energetics, syntheses, stereochemistry, and spectroscopy. Lab work is on synthesis and qualitative analysis employing techniques learned in CHEM 211AF. (CSU) (UC) (Degree Credit)

# Child Development \& Educational Studies (CDES) 

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

Associate in Arts Degree, Child Development and Education Studies<br>Associate in Arts Degree, Early Childhood Education<br>Associate in Arts Degree, Elementary Education<br>Early Childhood Education Administration Certificate<br>Early Childhood Education Associate Teacher Certificate<br>Early Childhood Education Teacher Certificate<br>Family Child Care Certificate<br>Infant/Toddler Caregiver Certificate<br>School Age Certificate<br>The Para-Professional in Education Certificate<br>Weekend Associate Teacher Certificate

Pending State Approval
Liberal Studies: Teacher Prep/Elementary Associate in Arts Degree

## Child Development and Educational Studies Courses

## CDES 110 F Anti-Bias Perspective Seminar (3)

Three hours lecture per week. This course places an emphasis on addressing issues of bias that individuals, children and families experience on a daily basis. The focus of this seminar is to prepare the student to create a culturally relevant teaching environment where adults and/or children actively foster cognitive, emotional and behavioral skills needed to respectfully and effectively learn about differences and similarities. Students are required to examine their own world views. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (Degree Credit) MULT CULT REQ

## CDES 112 F Teaching Peace (2)

Two hours of lecture per week. This course provides an overview of peace education and a framework for creating environments and curriculum that promote peace. Students gain skills in communication, conflict management, the anti-bias perspective, promoting non-violence and community building. (CSU) (Degree Credit)

## CDES 115 F Introduction to Early Childhood Education

## Curriculum (3)

Three hours of lecture per week. This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children's success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. (CSU) (Degree Credit)

## CDES 120 F Child Development (3)

Three hours lecture per week. Students study the entire scope of developmental theories addressing physical, intellectual, moral, social and emotional development. Periods of development from prenatal through adolescence are presented in a chronological sequence. Research methodologies are discussed as students are expected to think critically about theory and research. Inclusive viewpoints of theory and practice are addressed. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE

## CDES 121AF Introduction to Early Childhood

## Teaching (2)

Prerequisite: CDES 120 F and CDES 122 F
Corequisite: CDES 121BF
Two hours lecture per week. This course is designed to provide students interested in educating young children (preschool through the early primary grades) an introduction to teaching and learning. Current standards, policies and mandates within the early childhood profession are explored. (Not limited to Child Development majors). (CSU) (Degree Credit)

## CDES 121 BF Introduction to Early Childhood

Teaching Lab (1)
Prerequisite: CDES 120 F and CDES 122 F
Corequisite: CDES 121AF
One hour lab per week. The purpose of this course is to provide students interested in early childhood and early primary teaching weekly opportunities to develop observational strategies as well as opportunities to engage in the learning experiences of the classrooms. There will also be opportunities to develop, present, and evaluate learning activities for a wide age range of children in the Fullerton College Child Development Lab School as well as early primary grades. Not limited to Child Development majors. (CSU) (Degree Credit)

## CDES 122 F Principles of Early Childhood Education (3)

Three hours lecture per week. Emphasis is placed on the development of the teacher and the construction of quality programs. Issues included are developmentally appropriate practice, professional ethics, cross-cultural/non-sexist education, curriculum, health and safety, working with parents and the role of the adult as teacher and advocate. Students gain observation skills at the Fullerton College Lab. (CSU) (Degree Credit)

## CDES 123AF Early Childhood Art Education (2)

Prerequisite: CDES 115 F
A total of 32 lecture hours. This course examines the teacher's role in children's artistic growth. Emphasis is on the child as the artist, learner and creator. Students explore, analyze, develop and present artistic experiences that support children's use of art as a tool for communication and understanding. (CSU) (Degree Credit)

## CDES 123BF Early Childhood Language and Literary Education (2) <br> Prerequisite: CDES 115 F

A total of 21 lecture hours. This course examines the teacher's role in children's language and literacy development. Emphasis is on the child as listener, reader and writer. Students explore, analyze, develop and present artistic experiences that support children's use of art as a tool for communication and understanding. (CSU) (Degree Credit)

## CDES 123CF Early Childhood Science and Math Education (2) <br> Prerequisite: CDES 115 F.

A total of 32 lecture hours. Students gain insight and learn techniques for creating a scientific early childhood classroom environment that promotes a constructivist approach. Emphasis is on the child as researcher, explorer and investigator. Students explore processes that promote in-depth scientific investigation and early math understanding. (CSU) (Degree Credit)

## CDES 123DF Early Childhood Music Education (2) Prerequisite: CDES 115 F

Two hours lecture per week. Students learn to create musical environments as they explore brain research. Both vocal and instrumental music are explored. Using a multicultural lens, the role of the teacher as bridge between music and the child and family is emphasized. (CSU) (Degree Credit)

## CDES 125 F Observation and Assessment for Early Learning and Development (3)



Three hours of lecture per week. This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children's success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored.(CSU)(Degree Credit)

## CDES 131 F Business Principles of Family Child Care (3)

Three hours lecture per week. This course addresses the theory, practice and principles of operating a quality family child care home. Philosophy, goals, regulations, parent communication, business policies, record-keeping, safety, physical space requirements, and nutrition are the primary focus. Accreditation/certification options and family child care support services are discussed. (CSU) (Degree Credit)

## CDES 132 F Environments and Programs for Family Child Care (3)

Three hours lecture per week. This course prepares the family child care provider with the knowledge and techniques to create culturally relevant, quality environments and programs. Current brain research, developmental theories and innovative models will be explored. This course is relevant for the new and experienced family child care providers. (CSU) (Degree Credit)

## CDES 135 F Early Childhood CPR and First Aid (1)

Pass/No Pass only
One hour lecture per week. This course is designed to prepare the student to respond to emergency situations utilizing Cardio-Pulmonary Resuscitation (CPR) techniques and/or pediatric first aid. Topics such as injury prevention and disaster preparedness are also covered. This course meets, in-part, the California Department of Social Services health/safety requirements for family child care and center-based providers. Upon successful completion of the course American Red Cross certification is earned. (CSU) (Degree Credit)

## CDES 140 F Infant/Toddler Development and

 Observation (3)Three hours lecture per week. This course studies the child from birth to age three including prenatal development with an emphasis on physical, intellectual, social and emotional growth and development. Family interrelationships, establishment of basic trust and autonomy, and cultural variations on nurturing are included. Interwoven into this course are appropriate observation and assessment techniques. (CSU) (Degree Credit) AA GE

## CDES 141 F Principles of Infant/Toddler Care and

 Education (3)Three hours lecture per week. This course provides the student with an overview of the organization and operation of infant-toddler programs including: goals, philosophy, infant and family needs, activities and routines, physical space and equipment. An emphasis is on developmentally appropriate, culturally sensitive care for infants in group settings. (CSU) (Degree Credit)

## CDES 151 F School-Age Child: Program, Curriculum, Guidance (3)

Three hours lecture/demonstration per week. This course is for those working with in school-age extended-day programs. Emphasis is on philosophy, guidance and discipline, legal issues program/curriculum development and developmentally appropriate activities reflecting issues of diversity. Students develop criteria for evaluating quality programs. (CSU) (Degree Credit)

## CDES 173 F The Process of Parenting (3)

Three hours lecture/demonstration per week. This course applies a developmental framework in examining theoretical and practical approaches to the process of parenting. It explores expectations, influences and strategies of parenting with focus on attitudes and behaviors. Topics include: facilitating the parent-child relationship from birth through adolescence; adaptations of parenting techniques for working parents, single parents, and step-parents. These topics are addressed within the context of cultural diversity. (CSU) (Degree Credit) AA GE

## CDES 199 F Child Development Independent Study (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken four times for credit. (CSU) (UC Credit Limitation depending upon course content; UC review required.) (Degree Credit)

## CDES 200 F Adolescent Development (3)

Three hours lecture per week. This course examines the developmental period of adolescence. Emphasis is on physical, social, intellectual, moral and identity development in a framework reflecting the growing diversity of our population. While theoretical understanding is emphasized, issues such as teen pregnancy, family relationships, and education are addressed. (CSU) (UC Credit Limitation) (Degree Credit)

## CDES 201 F Child in the Home and Community (3)

Three hours lecture per week. This course provides a sociological and environmental study of the interaction of the family, school and community in the life of the developing child. Students explore the diversity of families and the support of these families throughout various social structures. Emphasis is on early childhood education, schools, community agencies and the responsibility of the professional as advocate. Course fulfills the Multicultural Education Requirement for graduation. (CSU) (Degree Credit) AA GE, MULT CULT REQ

## CDES 204 F Introduction to Special Education (3)

Three hours lecture per week. This course provides an overview of special education. It includes the theoretical and educational foundations of special education, a historical background to the field of special education, legal issues, and techniques for inclusion of individuals with special needs in all settings. Various implications of full inclusion are discussed. (CSU) (Degree Credit)

CDES 205 F Creating Environments for Young Children (2)
Two hours lecture per week. This course is designed for adults interested in planning inclusive environments for children. It is valuable for administrators, interior designers, and teachers. Students develop ways of examining the environmental settings for children and evaluate the use of physical space and the selection of activity settings in terms of program goals. The study of environmental planning to enrich children's experience is emphasized. Students design both indoor and outdoor environments for a group setting. (CSU) (Degree Credit)

## CDES 206 F Perceptual-Motor Development for Children

 (2)Two hours lecture per week. This course provides early childhood education teachers and parents with a better understanding of the motor development of young children. Guidelines used to develop daily programs in perceptual-motor curriculum and activities are explored. Techniques for early identification of learning and emotional problems and strategies for establishing an environment to enhance physical development are addressed. (CSU) (Degree Credit)

## CDES 207 F Principles and Techniques for Early Childhood Special Education with Field Experience (3)

Two hours lecture and seven hours lab per week. This course is designed for those who are or will be working with groups of young children. Identifying the teacher's role in early diagnosis, using IEP's working with specialists, and working with families are discussed. Teaching techniques, appropriate teaching goals, and curriculum adaptations are emphasized in relation to all the federally recognized categories of special education. Specific behavior management techniques and the importance of environmental adaptations for effective programs are included. Full inclusion policies and natural environments are discussed. Field experience in an inclusive setting will be incorporated into the course content. (CSU) (Degree Credit)

## CDES 208 F Working with Families of Children with Special Needs (3)

Three hours lecture per week. This course is designed for teachers, administrators, parents, and others interested in supporting children with special needs and their families. The first part of this course focuses on supporting families of children with special needs in early childhood settings. Developing techniques and strategies to provide this support is emphasized, as well as building a knowledge base of resources available to parents and early childhood programs. There is a focus on creating inclusive environments for young children and their families. (CSU) (Degree Credit)

## CDES 209 F The Role of the Para-Professional in Diverse Settings (3)

Three hours lecture per week. This course is an overview of the roles and responsibilities of para-professional including legal, instruction, evaluation and behavioral components. It is designed to train persons to work as classroom teaching assistants in public schools. This course meets the current legislative requirements for para-professional. (CSU) (Degree Credit)

## CDES 211 F Classroom Practices for Diverse Learners (3)

Three lecture hours per week. This course is designed for those who are or will be assisting in the elementary through secondary educational setting. Students will be prepared to facilitate classroom and community practices for diverse learners (individuals who have disabilities, second language learners, are gifted, etc.). Topics will include literacy, language, and behavior support. Introductory knowledge in the assessment, design and implementation of life-span curriculum and methodology will be covered. (CSU) (Degree Credit)

## CDES 215 F Health, Safety, Food, and Nutrition for Children (3)

Three hours lecture per week. This course focuses on health and safety and the use of food as an instructional medium in early childhood settings. Emphasis is placed on the planning and organization of foodrelated activities for young children, including safety, and sanitation issues; the application of basic nutrition principles to menu planning/ evaluation; the resolution of common food-related problems such as obesity and caregiver manipulation; and techniques and resources for providing culturally-appropriate foods and nutrition education. Health practices such as the prevention of infectious diseases and injury prevention are also covered. This course, in-part, meets the California Department of Social Services health/safety requirements for family child care and center-based providers. (CSU) (Degree Credit)

## CDES 225 F Early Childhood Teaching with Field Experience (3)

Prerequisite: CDES 120 F, CDES 122 F, CDES 123AF/123BF/123CF/ 123DF (two courses), and CDES 201 F all with a grade of "C" or better Corequisite: CDES 238 F all with a grade of "C" or better
Two hours lecture and seven hours lab per week. Placement may be in the Fullerton College Development Lab or a Mentor Teacher site. Student Teachers observe and document the behavior of a diverse group of children in order to design, implement and evaluate constructivist curriculum. Other elements of teaching such as environmental design, parent-teacher conferences and parent communication are explored. (CSU) (Degree Credit)

CDES 230 F Early Childhood Education Administration (3) Prerequisite: Completion of the Basic Children's Program Certificate at Fullerton College or completion of the California Department of Social Services required core courses as required by Title 22 Child Day Care General Licensing requirements
Forty-eight hours lecture per semester. This course is required for the Early Childhood Education Administration Certificate and meets the State Department of Social Services licensing regulations for administrators. The course emphasizes the following components: facility and financial management, marketing, enrollment, managing health and safety, food service, and legal considerations for child care centers. This is one course in a series of administrative course offerings. (CSU) (Degree Credit)

## CDES 231 F Early Childhood Education <br> Administration II (3)

Prerequisite: Completion of the Basic Children's Program Certificate at Fullerton College or completion of the California Department of Social Services required core courses as required by Title 22 Child Day Care General Licensing requirements
Forty-eight hours lecture per semester. The course is required for the Early Childhood Education Administration Certificate and meets the State Department of Social Services licensing regulations for administrators. This course emphasizes the following components: Child development and educational theory and philosophy; effective administrative, supervisory, and leadership skills; quality child care and development programming; planning, organizing, staffing, and evaluating child care centers; effective communication; and advocacy. This is one course in a series of administrative course offerings. (CSU) (Degree Credit)

## CDES 235 F Bilingual/Cross-Cultural Teacher Aide <br> \section*{Methods (3)}

Corequisite: ETHS 101 F or ETHS 118 F
Three hours lecture per week. This course is for students preparing to become bilingual/crosscultural teacher aides. It includes the role of the teacher/aide team with emphasis on effective use of the bilingual aide, practical classroom skills and techniques, and ways of establishing an effective learning environment. It covers current bilingual/crosscultural curriculum methods and evaluation. Information on employment trends, ways to find jobs, and ways to further career will be provided. (CSU) (Degree Credit)

## CDES 238 F Advanced Curriculum Design Seminar (3)

Prerequisite: CDES 115 F with a grade of " $C$ " or better
Three hours lecture per week. Students examine the role of the teacher in curriculum design based on inspirations from the Reggio Emilia preschools in Italy. Constructivist, child centered and play-based theoretical curricular approaches are explored as the students apply theory to practice. Observation, reflection, children's theory building, emergent curriculum and documentation are included. Course meets the specialization unit requirements for the Master Teacher level Child Development Permit Matrix. (CSU) (Degree Credit)

## CDES 240 F Leadership in the Early Childhood Profession (3)

Prerequisite: Student must meet requirement for the Associate Teacher on the Child Development Permit Matrix, California Commission on Teacher Credentialing, and the Child Development Division, State Department of Education
Three hours lecture per week. This course explores leadership strategies for positive growth and change in the early childhood profession. Course focuses on the promotion of quality professional teaching environments including the study of the following: mentoring, supervising, communication skill development, effective working relationships and innovations in the field. Class lectures include the exploration of the following leadership development topics: creating a vision, planning for change, implementing change, building a team, ethical responsibilities, exploration of bias, professional development and the need for advocating and leading change. Course meets requirements for adult supervision and application to the Mentor Teacher Project. (CSU) (Degree Credit)

CDES 242 F Introduction to Liberal Studies (3)
Prerequisite: ENGL 100 F with a grade of " $C$ " or better
Three hours of lecture with discussion per week. This course is a survey of the historical foundations and interdisciplinary nature of liberal studies, including an introduction to the values, modes of inquiry, and means of expression in the natural sciences, social sciences, and arts and humanities. (CSU) (Degree Credit) CSU GE, IGETC

## CDES 245 F Personal Proficiency in Educational Technologies for Secondary Teachers (3)

Three hours of lecture per week. The purpose of this course is to provide students interested in secondary teaching (grades 7-12) personal proficiency in educational technologies that facilitate the teaching process and enhance student learning. Training includes educational technology terminology, development of a teaching portfolio that includes a specific unit plan in the student's designated discipline, multimedia presentation samples, internet search and retrieval literacy, electronic communication applications, evaluation tools, support materials, and awareness of legal and ethical issues. (CSU)

CDES 248 F Introduction to Secondary Teaching (3)
This course provides students with an overview of secondary teaching as a profession through observations, readings, interactive classroom participation and selected developmental assignments. Students analyze fieldwork experience while examining the history, philosophy and social foundations of education. The California Teaching Performance Expectations and Assessment (TPEs and TPAs) are introduced. The course overviews content standards, the needs of special populations, and accommodations for English Language Learners (ELL) and struggling readers. Curriculum Development and curriculum reform are reviewed. Students complete the initial development of a Teaching Assessment Documentation. Forty hours of observation/fieldwork are required. (CSU)

## CDES 261AF Introduction to Elementary Classroom Teaching (2)

Corequisite: CDES 261BF with a grade of " $C$ " or better
Two hours lecture per week. The purpose of this course is to provide students interested in elementary teaching an introduction to teaching and learning, an overview of the scope and sequence of curriculum planning, the understanding of content standards, California Standards of the Teaching profession, experience in the development, presentation and evaluation of learning activities. (CSU) (Degree Credit)

## CDES 261BF Introduction to Elementary <br> Classroom Teaching: Observation (1)

Corequisite: CDES 261AF. Three lab hours per week
The purpose of this course is to provide students interested in elementary teaching weekly observation and participation experiences in elementary classrooms and opportunities to develop, present and evaluate learning activities. Students will observe three hours/week. (CSU) (Degree Credit)

PE 232 F Games and Rhythms for Elementary Schools (2) One hour lecture and two hours lab per week. This course provides theory and practical experience in teaching the elementary school child. This course will survey social, psychological, and physical development, and capacities of children ages 5 through 12. Games of low organization, team sports, and rhythmic skills are included. (CSU) (Degree Credit)

## Chinese (CHIN)

## Humanities Division

Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## Chinese Courses

## CHIN 101 F Elementary Chinese - Mandarin I (5)

Letter Grade or Pass/No Pass option
Five hours lecture plus one arranged lab hour per week. The course focuses on the four major skills of language learning, listening comprehension, speaking, reading and writing, and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Chinese-speaking countries. This course is conducted primarily in Chinese. (CSU) (UC) (Degree Credit)

## CHIN 102 F Elementary Chinese - Mandarin II (5)

Letter Grade or Pass/No Pass option
Prerequisite: CHIN 101 F with a grade of "C" or better or one year of high school Chinese with a grade of "C" or better
Five hours lecture per week plus one arranged lab hour per week. The course continues to focus on the four major skills of language learning, listening comprehension, speaking, reading and writing, and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Chinese-speaking countries. This course is conducted primarily in Chinese. (CSU) (UC) (Degree Credit) IGETC

## CHIN 203 F Intermediate Chinese - Mandarin III (4)

Letter Grade or Pass/No Pass option
Prerequisite: CHIN 102 F with a grade of "C" or better or two years high school Chinese with grade of "C" or better
Four hours lecture per week. This course is a review of grammar with written and oral practice. Conversation is based on cultural and literary materials. (CSU) (UC) (Degree Credit)

## CHIN 204 F Intermediate Chinese - Mandarin IV (4)

Letter Grade or Pass/No Pass option
Prerequisite: CHIN 203 F with a grade of "C" or better or three years high school Chinese with a grade of "C" or better
Four hours lecture per week. This course is a review of grammar with written and oral practice. Conversation is based on cultural and literary materials. The course includes an introduction to Chinese literature. Instruction is in Chinese. (Not currently being offered - if interested, contact Division Office.) (CSU) (UC) (Degree Credit)

# Cinema-Radio-TV (CRTV) 

Technology \& Engineering Division<br>Office: Bldg 700, Room 714<br>714.992.7122<br>Dean: Scott McKenzie<br>Website: communications.fullcoll.edu

General Associate in Arts Degree<br>Radio Broadcasting Associate in Arts Degree<br>Radio Production Associate in Arts Degree<br>Radio and Television/Video Production Certificate<br>Radio Broadcasting Certificate<br>Sports Broadcasting Certificate<br>Television/Film Associate in Arts Degree<br>Television/Film Production Certificate

## Cinema-Radio-Television Courses

## CRTV 030 F Media Industry Independent Contractor (1)

One hour lecture per week. This course will present the basics of working as an independent freelance professional in the media industry. Subjects to be covered include choosing a business structure, basic business practice, handling finances and taxes, marketing and managing your personal life. This course uses discussions and exercises, expert guest speakers and videotaped interviews with independent professionals from around the country. This course is designed for anyone who is thinking about, or currently working as an independent contractor in the areas of writing, producing, directing, technical crew or performing talent.

CRTV 118 F Introduction to Radio, Television and Film (3)
Three hours lecture per week. This course is designed to assist the beginning student in understanding radio, television, cable, film, and electronic mass media. For those who plan to pursue a career in broadcasting or film, this course will provide guidance for career decisions and background for more specialized courses. For those with a general interest in broadcasting and film, this course will provide a broad understanding of the electronic mass media, including: regulation of broadcasting and film, the effects of broadcasting and film, non-commercial broadcasting, ratings and research, production and marketing of films, and electronic mass media. (CSU) (Degree Credit) AA GE

## CRTV 120 F Media Aesthetics (3)

Three hours lecture per week. This course provides a background in understanding aesthetics used in television, motion pictures, and video games and explores the development and impact of mediated messages. The interplay and structuring of elements of sight, sound, and motion as message components, and their capacity to generate impressions, stimulate feelings, shape attitudes, and convey information are examined. (CSU) (Degree Credit) AA GE, CSU GE

## CRTV 121 F The American Cinema (3)

Three hours lecture per week. This course examines the American motion picture industry as a unique economic, industrial, aesthetic, and cultural institution. Development and changes are examined related to technology; industrial and economic models; aesthetic styles and genres; production, marketing, and distribution processes; and audiences. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## CRTV 122 F Audio Production Techniques (3) Advisory: CRTV 118 F

Two hours lecture and four hours lab per week. This course provides instruction in the operation of radio and television audio equipment, broadcast microphones, and computer software associated with media recording and internet radio. Projects will include production of radio commercials, television commercial soundtracks, digital audio editing, and special radio and television broadcast procedures with an emphasis on smooth operation of the audio control board and other audio equipment. (CSU) (Degree Credit)

## CRTV 124 F Broadcast Advertising Sales (1)

One hour lecture per week. This course covers the analysis of the sales function in commercial radio and television stations, and cable television franchises. The students examine the methodology and practical application of electronic media advertising, sales, and research. Audience demographics, market surveys, rate structure, and client relationships are included. Students will learn to write standard length commercials that focus on the targeted consumer and produce results for the advertiser. Discussion of media competitive advantages and disadvantages, as well as vocabulary and techniques of broadcast sales are also examined. (CSU) (Degree Credit)

## CRTV 126AF World Cinema to 1945 (3)

Three hours lecture per week. This is the first course in a two-course sequence that will provide a background in cinema history with a global perspective, following the growth of cinema from primarily a U.S. and European form of entertainment and communication to an international medium with significant production centers, cultural traditions, and production styles found in a variety of locations around the world. This course will focus on world cinema from its early development through the end of World War II. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## CRTV 126BF World Cinema 1946 to Present (3)

Three hours lecture per week. This is the second course in a two-course sequence that will provide a background in cinema history with a global perspective, following the growth of cinema from primarily a U.S. and European form of entertainment and communication to an international medium with significant production centers, cultural traditions, and production styles found in a variety of locations around the world. This course will focus on world cinema after World War II to the present. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## CRTV 127 F Screenwriting (3)

Three hours lecture/discussion per week. This course covers the concepts and practices in the various types of dramatic writing for television and motion picture production. Students will learn about characterization, conflict, structure, and commercial prospects. Course may be taken twice for credit. (CSU) (Degree Credit)

## CRTV 128 F Writing for Radio-Television-Film (3)

Three hours lecture per week. This course covers the concepts, practices and forms for commercials, interviews, corporate and dramatic presentations for radio, television, film and the Internet. This is a course in all forms of media writing. (CSU) (Degree Credit)

CRTV 129 F Broadcast News (3)
Two hours lecture and four hours lab per week. This course provides instruction and practice in gathering and writing news for radio and television. The emphasis is on writing copy and familiarization with professional practices in radio and television news operations, including the use of local news sources, international wire services, and other news material. Course activities include planning, writing, and delivering news for radio and television. Course may be taken four times for credit. (CSU) (Degree Credit)

## CRTV 130 F Broadcast Audio Production (3)

Prerequisite: CRTV $122 F$ with a grade of " $C$ " or better
Two hours lecture and four hours lab per week. This course is designed to increase digital audio production skills for radio and television. Projects are designed to give students the opportunity to use the audio production room for a variety of production purposes for radio, television, film, internet and media production. (CSU) (Degree Credit)

## CRTV 131 F Contemporary Cinema (3)

Three hours lecture per week. This course focuses on the American motion picture industry beginning with the film school generation and the production processes, economic factors, and social influences that have shaped the industry and been shaped by the industry. This will include changes in practices relating to production aesthetics and techniques, marketing, distribution, and technology. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## CRTV 133 F Traffic Reporting (3)

Two hours lecture and three hours lab per week. This course provides instruction and practice in gathering and reporting traffic for radio and television. The emphasis is on gathering information and writing and announcing traffic updates and familiarization with professional practices in radio and television traffic operations, including the use of local maps, CHP sources, Cal Trans cameras, and other online material. Course activities include compiling, composing, and delivering traffic reports for radio and television. (CSU) (Degree Credit)

CRTV 135 F Broadcast TV and Radio Announcing (3)
Two hours lecture, three hours lab per week. This is a course in announcing technique focusing on the announcing and voiceover skills most needed in contemporary radio and television. This course concentrates on announcer voice technique on and off camera, talk radio hosting skills, commercial interpretation, news announcing, podcasting and ad-libbing. (CSU) (Degree Credit)

## CRTV 137 F Television Announcing (3)

Three hours lecture/discussion per week. This course covers on-camera television announcing for newscasts, commercials, interviewing, and ad-lib productions. Students develop non-dramatic television announcing skills through practice and evaluation. (CSU) (Degree Credit)

## CRTV 145 F Radio/TV Sports Broadcasting (3)

Two hours lecture, four hours lab per week. Class members will be involved in the broadcast of local sports on radio station KBPK, 90.1 FM and the Fullerton College Cable Television Network. The sports to be broadcast include football, basketball, baseball and soccer. Students will also perform as sportscasters on news programs for KBPK. Students will interview local athletes, write, and produce feature material for broadcast. Course may be taken four times for credit. (CSU) (Degree Credit)

## CRTV 150 F Television Studio Production (3) Advisory: CRTV 118 F

Two hours lecture/discussion and three hours lab per week. This course covers the basic use and operation of television equipment utilizing camera, lenses, switching, sound, lights, graphics, videotape recording, and character generator. Lab work will center on video programs. (CSU) (Degree Credit)

## CRTV 157 F Digital Production/Non-Linear Editing for Video/Film (formerly CRTV 164AF) (3)

Two hours lecture and four hours lab per week. This course introduces single-camera video and filmmaking production techniques; including operation of digital video cameras and recorders and sound, lighting, and non-linear editing equipment. Students will use professional procedures from pre-production through post-production to develop, produce, and execute to completion various non-fiction and fiction program formats applicable to television and motion pictures. (CSU) (Degree Credit)

## CRTV 160 F Introduction to Filmmaking (3)

Prerequisite: CRTV 157 F with a grade of " $C$ " or better
Two hours lecture and three hours lab per week. Introduction to the fundamental techniques and aesthetics of film production. The lecture/ lab will emphasize camera operation, editing, lighting, cinematography and directing. Study and analysis of classic films as well as student's own work will be viewed. (CSU) (Degree Credit)

## CRTV 164 F Advanced Digital Production/Non-Linear Editing for Video (formerly CRTV 164BF) (3)

Prerequisite: CRTV $157 F$ with a grade of " $C$ " or better
Two hours lecture and four hours lab per week. This course is designed to provide students with training and experience related to the design and execution of professional quality single-camera productions that would comprise a demo tape appropriate to pursue employment in the television/film industry. The focus will be on achieving levels of design and execution that are effective in meeting project/client and industry needs. Elements include multi-camera editing, green screen, key framing and color correction.(CSU) (Degree Credit)

## CRTV 175 F Documentary Filmmaking (3)

Advisory: CRTV 157 F with a grade of " $C$ " or better, or knowledge of camcorder usage and Apple computers
Three lecture hours per week. This course gives an introduction to modern digital documentary filmmaking techniques. Practical narrative and technical approaches to documentary productions are examined and demonstrated. Students will participate in production of a documentary project(s). (CSU) (Degree Credit)

## CRTV 196 F Communications Seminars (.5-3)

Lecture and lab hours will vary according to the nature of the seminar. Communications Seminars are courses designed to expose students to up-to-date equipment, methods, techniques, and materials. These courses offer the student opportunities for specialized training in greater depth than can be offered in a general course. These courses will vary from semester to semester depending on student interest, industry developments, and need for specialized training. See class schedule for current offerings. Course may be taken four times for credit or a maximum of four units. (CSU) (Degree Credit)

## CRTV 199 F Cinema-Radio-Television

Independent Study (1-3)
Prerequisite: Approval of Communications Department Coordinator One hour lecture or scheduled conference or three hours independent lab research per week per unit of credit. This course is designed for students who wish to increase their knowledge of cinema, radio or television through individual study. Project with written report or outside reading with written report is required. Independent lab research problems with staff supervision may be approved. Course may be taken four times for credit. (CSU) (UC review required.) (Degree Credit)

## CRTV 235 F On-Air Radio Broadcasting (3)

Prerequisite: CRTV 122 F and CRTV 135 F with a grade of "C" or better
One hour lecture/discussion and six hours lab per week. Course includes daily broadcast preparation and presentation of on-the-air programs. Students gain actual on-the-air experience on College FM station, KBPK, 90.1 MHz . Course may be taken four times for credit. (CSU) (Degree Credit)

## CRTV 245AF Digital Editing, Graphics and Effects (3)

Prerequisite: CRTV $157 F$ with a grade of " $C$ " or better
Two hours lecture and four hours lab per week. This course builds on the knowledge and skills received in CRTV 157F Digital Production and Non-Linear Editing for Television/Film. Students learn the aesthetics and techniques of incorporating graphics and special effects while practicing advanced non-linear video editing skills. (CSU) (Degree Credit)

## CRTV 245BF Advanced Digital Editing, Graphics and Effects (3) <br> Prerequisite: CRTV 245AF with a grade of " $C$ " or better

Two hours lecture and four hours lab per week. This course is designed to provide students with more advanced training in non-linear editing, incorporating graphics, audio mixing and utilizing special effects in editing. Special emphasis will be placed on in-depth knowledge of equipment, speed, accuracy, aesthetics and special effects. (CSU) (Degree Credit)

## CRTV 280 F Television Production Workshop (2-5)

Prerequisite: CRTV 150 F with a grade of "C" or better
One hour lecture and one hour lab plus three hours arranged per week for the first two units. An additional three hours lab per week is required for each additional unit for a maximum of five units each semester and a cumulative total of 20 units. Students participate as crewmembers on Media Services and Communication Department cable and campus productions utilizing four camera remote van, studio and EFP Equipment. Instruction in equipment operation, production management and production design. The course prepares students for employment in the industry through development of advanced hands-on skills and in-depth, varied production experience. Course may be taken four times for credit. (CSU) (Degree Credit)

## CRTV 290 F Internship in Communications (2-4)

One hour lecture per week and 5 hours supervised employment or unpaid internship per week in communications. An additional five hours per week of supervised employment or unpaid internship for each additional unit of credit is required. This course offers career development opportunities for students and industry professionals who need to strengthen or broaden their skills to retain their current position or wish to advance in their current careers. Students obtain vocational learning opportunities through employment/internships at newspapers, magazines, public relations firms, radio, television, and cable stations, and television and film industry related companies. Course may be taken four times for credit. (CSU) (Degree Credit)

## Computer Information Systems (CIS)

## Business \& CIS Division

Office: Bldg 300
714.992.7032

Dean: Ann Hovey
Website: http://bizdiv.fullcoll.edu
Associate in Science Degree
Computer Information Systems Certificate
Computer Software Applications Specialist Certificate
Database Applications Certificate
E-Commerce Programming Certificate
Enterprise Database Certificate
Internet Certificate
Networking Certificate
PC Applications Certificate
Programming Certificate
Spreadsheet Applications Certificate
Web Design Certificate
Web Scripting Certificate

## Pending State Approval

Computer Forensics Certificate

## Computer Information Systems Courses

## CIS 048 F Intro to PC Communications (2)

Advisory: CIS 150 F
One and one-half hour lecture and one and one-half hour lab per week. This course is an introduction to personal electronic communications and management using state-of-the-art email and scheduling software. Students learn how to connect the software with Internet email servers and how to receive and manage email. Students will also learn to manage an electronic calendar, schedule appointments, and manage appointment information. (Degree Credit)

## CIS 050 F Web Page Design I (2)

Advisory: CIS 150 F
One and one-half hour lecture and one and one-half hour lab per week. This course is an introduction to automatic Web page creation using state-of-the-art software. Students will learn the operation of the software and how the software connects with Web servers. Students will also learn to insert graphics, components, multimedia content, and other Web-related components. Students will also learn to create and use Web page templates and other design tools. (Degree Credit)

## CIS 070 F Current Computer Topics (1-3)

One to three hours lecture and zero to three hours lab per week. This course is for students who wish to increase their knowledge and skills in various Office Technology related topics. Unit credit may range from 1 to 3 units in any given semester. Consult the class schedule to verify course topics being offered for a particular semester. May be taken for credit four times.

## CIS 090 F Office Certification Preparation (1-3)

Variable hours of lecture and/or lab. This course is for students who wish to prepare for the Microsoft Office Specialist tests. Unit credit may range from 1-3 units in any given semester. Consult the class schedule to verify topics and credit offered in a particular semester. May be taken for credit four times. (Degree Credit)

## CIS 100 F Introduction to Personal Computers (3)

Three hours lecture and two hours lab per week. This course introduces students as well as the business professional to the use of the personal computer using state-of-the-art software. Topics include an overview of personal computer applications including a brief introduction to computer concepts, use of a word processor, spreadsheet application, presentation manager application, and how to use the Internet. (CSU) (UC) (Degree Credit) AA GE

## CIS 102 F Intro to Open Source Software (3)

Three hours lecture and two hours lab per week. This course teaches students to use various Open Source software on a Windows computer. Topics include finding Open Source Software, downloading and installing software, and using typical packages like Open Office and Open CD. Students will also learn how to participate in the Open Source community. (CSU) (Degree Credit)

## CIS 104 F Presentation Graphics (2)

One and one-half hour lecture and one and one-half hour lab per week. This course is an introduction to business presentation graphics. Topics include planning presentations, creating business presentations and templates, enhancing presentations with graphics, sound, animation, transition, and video and using presentations on a Web server. State-of-the-art software will be used. (CSU) (Degree Credit)

## CIS 105 F Spreadsheet I (2)

One and one-half hour lecture and one and one-half hour lab per week. This provides an introduction to spreadsheets in the solution of business problems. Students will create, format and print worksheets that include formulas, functions, charting, relative and absolute cell references, work with large worksheets. Also covered are creation of static and dynamic Web pages and design and manipulation of databases. State-of the-art software will be used. (CSU) (Degree Credit)

## CIS 107 F Intro to Operating Systems (2)

One and one-half hour lecture and one and one-half hour lab per week. This course is designed to introduce the operating system on the personal computer. This course will cover the fundamentals of the graphical user interface, mouse operations, how to manipulate the interface, how to use Help, Search, launch applications, manage files and folders and add/delete hardware and software. Additional topics include accessories and system tools. (CSU) (Degree Credit)

## CIS 109 F Personal Computer Security (2)

One and one-half hour lecture and one-half hour lab per week. This class introduces the student to personal security on individual computers and across the Internet. Students will learn how to protect their own computers from viruses, Trojan Horse programs, and other intrusive software. Students will also learn to protect their personal information over the Internet and how to securely send information. (CSU) (Degree Credit)

## CIS 111 F Introduction to Information Systems (3)

Three hours lecture and two hours lab per week. This course is an introduction to computer information systems; computer organization and problem-solving concepts, computer operating systems, spreadsheet and database management application software, and programming in a modern high level programming language. (CSU) (UC Credit Limitation) (Degree Credit) AA GE

## CIS 111HF Honors Introduction to Information Systems (3)

Three hours lecture and two hours lab per week. This course is an introduction to computer information systems, computer organization and problem-solving concepts, computer operating systems, spreadsheet and database management application software, and programming in a modern high-level programming language. As an honors course, this class will include enrichment content and activities requiring independent problem-solving and critical thinking skills and collaborative group projects and presentations. (CSU) (UC Credit Limitation) (Degree Credit)

## CIS 120AF Project Management I (2)

One and one-half hour lecture and one and one-half hour lab per week. This course covers project management application skills including planning a project, creating project schedules, communicating project information, adding tasks and durations, changing relationships, tracking progress, and closing the project. Also covered are customizing project management software, Web resources and project management certifications. State-of-the-art software will be used. (CSU) (Degree Credit)

## CIS 120BF Project Management II (2) <br> Advisory: CIS 120AF

One and one-half hour lecture and one and one-half hour lab per week. This course covers project management concepts and application skills including tracking project work, analyzing and adjusting schedules, advanced formatting and printing, project communications, managing multiple projects and exchanging project data. The course will be taught with state-of-the-art project management software. (CSU) (Degree Credit)

## CIS 123AF Word Processing I (2)

One and one-half hour lecture and one and one-half hour of lab per week. This course is designed as an introduction to word processing software. The course will cover the fundamental operations of word processing; typing text, saving, editing, copying, moving, printing, formatting, margins, tabs, footers and headers, footnotes, vertical and horizontal alignment and line spacing. State-of-the-art software will be used. (CSU) (Degree Credit)

## CIS 123BF Word Processing II (2) <br> Advisory: CIS 123AF

One and one-half hour lecture and one and one-half hours lab per week. This course introduces advanced topics using word processing software. Covered topics include creating tables and charts, columns, adding graphics and multimedia elements, managing and printing files, merged documents, table of contents, and indexes. State-of-the-art software will be used. (CSU) (Degree Credit)

## CIS 142 F Database I (2)

One and one-half hours lecture and one and one-half hours of lab per week. This course is to teach use of state-of-the-art personal database software. The course will cover introductory concepts including database structure and design, editing database records, sorting/indexing records, query techniques, custom form creation, database report design and printing, database relational techniques, and general file management techniques. (CSU) (Degree Credit)

## CIS 149 F Internet Entertainment (3)

Three hours lecture and two hours lab per week. This class teaches the various elements of entertainment on the Internet. These include how media companies are using the Internet for content distribution and marketing, how various types of Internet Entertainment programs work with client operating systems like Windows, and how to configure clients to use various Internet Entertainment packages. (CSU) (Degree Credit)

## CIS 150 F Introduction to Internet (2)

One and one-half hour lecture and one and one-half hour lab per week. This course is an introduction to the organizational, operational, and technical aspects of the Internet. Students will learn how to use a personal computer to access Internet and the World Wide Web to search for its wealth of online resources. Topics include an overview of personal computer operations; the history and philosophy of the Internet; configuring a personal computer to connect to the Internet; selecting an Internet service provider; sending and receiving electronic mail (E-mail); log in to remote computers using Telnet; locating network resources using Search Engines; participating in discussion groups using Usenet; downloading software, online text, graphics, sound and video files using file transfer protocol (FTP) and ethical uses of the Internet. Other topics include developing, creating and posting personal and business Web pages using the hypertext markup language (HTML). (CSU) (Degree Credit)

## CIS 151 F Internet Research (2)

Advisory: CIS 150 F
One and one-half hour lecture and one and one-half hour lab per week. This course is an introduction to the information resources available on the Internet, for the purpose of performing research. Students will learn how to use Internet search tools and methods to locate useful, accurate, and reliable information on the Internet. Topics include search engines; advanced search strings and options; comparison of search engines; Boolean operators, locating people, businesses, libraries, and multimedia; industry specific search engines, methods, and sources; electronic bulletin board services; Listserv; archives; File Transfer Protocol, and information literacy. Other topics include evaluation of Internet materials; legal issues and copyrights of Internet information; and citing Web and Internet resources. (CSU) (Degree Credit)

## CIS 152 F Web Page Design II (2)

One and one-half hour lecture and one and one-half hour lab per week. This course will prepare students to create Internet Web pages for personal and business purposes. Students will learn basic Internet concepts, using an Internet browser, and Web page creation. Emphasis is placed on learning the Hypertext Markup language, using and editing graphic files, and creating various types of Web pages. (CSU) (Degree Credit)

## CIS 153 F Business Web Graphics (2)

Advisory: CIS 150 F
One and one-half hour lecture and one and one-half hour lab per week. This course teaches the skills necessary to create business graphics for Web pages. Topics include graphic file formats used on Web pages, designing Web components using a graphical editor and using graphical elements in Web page design. Students should be familiar with using the Internet. (CSU) (Degree Credit)

## CIS 154 F JavaScript Programming I (2)

Prerequisite: CIS 150 F or CIS 152 F, both with a grade of " $C$ " or better
One and one-half hour lecture and one and one-half hour lab per week. This course teaches the student to use the JavaScript programming language with Hyper-Text Markup Language (HTML) pages. Emphasis is placed on creating HTML pages that include JavaScript programs. The student will learn the basic syntax of the JavaScript language, how to create JavaScript programs inside HTML documents, and how to use JavaScript programs to enhance Web pages. (CSU) (Degree Credit)

## CIS 155 F Web Page Multimedia Design I (2)

Advisory: CIS 152 F with a grade of " $C$ " or better
One and one-half hour lecture and one and one-half hour lab per week. This course introduces students to multimedia Web design. Topics include how to create multimedia content for Web pages, how to choose the right multimedia material, how to edit the material, and how to include the material in Web pages. (CSU) (Degree Credit)

## CIS 156AF WebMaster - Foundations (2)

One and one-half hour lecture and one and one-half hour lab per week. This course covers an introduction to the structure, operation, and technical aspects of the Internet. Students will learn how to use a personal computer to access Internet and the World Wide Web to search for its wealth of online resources. Topics include an overview of personal computer operations; the history and philosophy of the Internet; configuring a personal computer to connect to the Internet; selecting an Internet Service Provider; sending and receiving electronic mail (E-mail); locating network resources using Search Engines; downloading software, online text, graphics, sound and video files using file transfer protocol (FTP) and ethical uses of the Internet. Other topics include developing, creating and posting personal and business Web pages using the hypertext markup language (HTML). The course also covers CIW [Certified Internet WebMaster] material so it will prepare students for the all other CIW exam(s) (CSU) (Degree Credit).

## CIS 156BF WebMaster - Designer (3)

Three hours lecture and two hours lab per week. This course covers designing web sites that have e-commerce capabilities. Topics include using web programs and editors to create, set-up, and edit B2C and B2B web sites. Information on design methodology, e-commerce strategies, and web site structure will be examined. Students must have a working knowledge of basic Internet concepts, HTML/DHTML, and some programming language. The course also covers CIW [Certified Internet Webmaster] material so will prepare students for the 1DO-420, and 1DO-425 test. These exams fulfill the requirements for CIW Designer certification. (CSU) (Degree Credit)

CIS 156CF WebMaster - Administration (3)
Advisory: CIS 156AF, CIS 150 F or CIS 152 F, and some knowledge of a programming language
Three hours lecture, two hours lab per week. This course covers administration of web resources. Topics include using web programs and editors to set-up, edit, and manage web sites. Information on server administration, Internetworking, and web security will be examined. Students must have a working knowledge of basic Internet concepts, HTML, basic networking and some programming language. The course also covers CIW [Certified Internet Webmaster] material so will prepare students for the 1DO-450, 1DO-460, and 1DO-470. These exams fulfill the requirements for CIW Administrator certification. (CSU) (Degree Credit)

## CIS 157 F Dreamweaver I (3)

Three hours of lecture and two hours of lab per week. This course covers using Dreamweaver to create Web pages. Topics include creating web pages with graphics, links, and multimedia elements. Students will also learn how to import files and graphics into Dreamweaver from other programs. Students should be familiar with the Internet. (CSU) (Degree Credit)

## CIS 157BF Dreamweaver II (3)

Three hours lecture and two hours lab per week. This project-based, hands-on course uses intermediate development techniques in Dreamweaver to enhance business webpages. Topics include the use of stylesheets to create custom classes, link styling, toggle submenus; manage template-controlled sites, and navigation element control. Students will also learn to manage Dreamweaver extensions. (CSU) (Degree Credit)

## CIS 159 F Introduction to XML (2)

Advisory: CIS 152 F
One and one-half hour lecture and one and one-half hour lab per week. This course teaches the basic concepts of XML. Topics include the structure of an XML document, creating XML documents, using Data Definitions, and linking XML documents to other web components. Students should have a working knowledge of HTML. (CSU) (Degree Credit)

## CIS 160 F Introduction to Computer Forensics (3)

Three hours lecture and one hour lab per week. Students will learn basic concepts behind computer security, evidential process, and handling electronic evidence. Topics include securing and analyzing a computer system, securing and analyzing a network system, working with law enforcement, and information warfare. (CSU) (Degree Credit)

## CIS 165 F Computer Forensics and Networking (3)

Advisory: Basic knowledge of computer networking
Three hours lecture and one hour lab per week. This class teaches the student how to use computer forensic techniques and tools to investigate and reconstruct network-based data. Students learn the basic operation and structure of a computer network, the various network devices and their operation, and the tools used to investigate a network. Topics include trapping network data, retrieving and analyzing email, tracing network packets, and other security and forensic topics. (CSU) (Degree Credit)

## CIS 166 F Operating Systems and Computer Forensics (3)

 Advisory: Basic knowledge of computer forensicsThree hours lecture and one hour lab per week. This course teaches students how to perform computer forensic analysis of data on the Windows, Linux, and MacIntosh operating systems. Students will learn about the internals of the operating system, the potential security problems with the operating system, and how to capture static and live data from an operating system. Students will also learn to use some typical network software and hardware forensic tools and how to protect gathered data in a legally acceptable manner. (CSU) (Degree Credit)

## CIS 168 F Tools for Computer and Network Forensics (3)

 Advisory: Basic knowledge of C++Three hours lecture and one hour lab per week. This course teaches students how to use various hardware and software tools to engage in computer and network forensics. Topics include installing, configuring, and using common open source forensic tools, building custom tool kits, modifying tools, and creating new tools. Students will learn how to use C++ to write custom computer and network forensic software tools. (CSU) (Degree Credit)

## CIS 171 F Network Intrusion and Detection (3)

Advisory: Basic knowledge of a network operating system and basic networking concepts
Three hours lecture and one hour lab per week. Students learn how computer network security is compromised by use of common intrusion tools. Students also learn how to detect such network intrusions and how to monitor and trap the intruder. Topics include how to successfully penetrate Windows and Linux networks and how to install and use open source tools to detect and protect from such penetration. (CSU) (Degree Credit)

## CIS 180 F Introduction to Networking Concepts (3)

Three hours lecture per week. This class introduces the student to data communications and networking concepts used in businesses. Topics include the major components of a data communications networks, local area networks, wide area networks, networking topologies, network protocols, internetworking, and categorizing network operating systems. (CSU) (Degree Credit)

## CIS 183 F Network Security Fundamentals (3)

Advisory: Complete CIS 107 F and CIS 180 F with a grade of "C" or better
Three hours lecture and one hour lab per week. This course covers terminology, technology, and software used with network security. This course is designed to provide students with an overview of network security. Students will learn about communication security, infrastructure security and cryptography. Business plans for disaster recovery will be covered. This course may be taken four times for credit. (CSU) (Degree Credit)

## CIS 205AF Spreadsheet II (2)

## Advisory: CIS 105 F

One and one-half hour lecture and one and one-half hour lab per week. Building upon knowledge gained in CIS 105 F Spreadsheet I, advanced applications including worksheet design, worksheet text enhancements, graphs and formatting capabilities will be covered. Advanced concepts on the creation and use of databases, integration with other database software, and how spreadsheet software can be used as a repository and report writer for data queried from other databases or from a corporate SQL relational database will be covered. Development of complex formulas using functions, and an in-depth study of macros, including the design of custom menus to automate spreadsheet applications will also be included. This course will cover integration of spreadsheet software with other window-based software. State-of-the-art software will be used. (CSU) (Degree Credit)

## CIS 205BF Macro Programming (2)

Advisory: CIS 105 F
One and one-half hour lecture and one and one-half hour lab per week. This course covers using the macro and programming features spreadsheet application programs. Students will learn how macros work, how to define macros by capturing actions, and how to create custom macros. Students will also learn the Visual Basic for Applications programming language including looping, input and output, and decisions. This course may be taken four times for credit. (CSU) (Degree Credit)

## CIS 211 F Basic Programming for Business (3)

Three hours lecture and two hours lab per week. This class teaches fundamental programming concepts using a modern programming language. Students learn the concepts behind program design and operation, how to use decision-making commands, how to perform input and output, how to create and use looping instructions, and how to use other current programming concepts. (CSU) (UC Credit Limitation) (Degree Credit)

## CIS 212 F Robotic Programming (3)

Three hours lecture and two hours lab per week. This class teaches basic programming concepts by creating applications for physical robotic devices. Students will learn how to connect to these robotic devices, how to design a program that controls the device, and how to download their program to the device. Programming topics include looping, making decisions, variables, and arrays. (CSU) (Degree Credit)

## CIS 217 F Visual Basic Programming I (3)

Three hours lecture and two hours lab per week. This course is an introduction to Visual Basic Programming. The course provides a study of the use and implementation of Visual Basic Programming including objects, events, methods, properties, project windows, forms, strings, control structures, custom menus, custom procedures, sequential files, random access files, color, drawing, and error trapping. (CSU) (UC Credit Limitation) (Degree Credit)

## CIS 218 F Visual Basic Programming III (3) <br> Advisory: CIS 105 F and CIS 142 F

Three hours lecture and two hours lab per week. This class introduces Visual Applications programming. Topics include the structure of a VBA program, programming logic, and using VBA to create Microsoft Office applications. Additional topics include using BVA in Excel, Word, Access, and Outlook. This course may be taken four times for credit. (CSU) (Degree Credit)

## CIS 219 F Visual Basic Programming II (3)

Prerequisite: CIS 217 F with a grade of "C" or better
Three hours lecture and two hours lab per week. This course covers various specialized visual basic programming tasks including database management, component level programming, XML processing, distributed network programming, and embedded device programming. Students learn to create programs that read and write to databases, which are structured as components, process XML files, and can be distributed across a network. (CSU) (Degree Credit)

## CIS 220 F Web Server Programming (3)

Advisory: CIS 152 F and CIS 217 F
Three hours lecture and two hours lab per week. This course covers topics on Web programming for the Internet and Intranets. Topics include an explanation of how programs are run across the Internet, the various types of Web programs, and how information is loaded into network databases. Programming for both clients and servers will be covered in this class. Students should have a background in Web page design with HTML and have a background in Visual Basic programming. (CSU) (Degree Credit)

## CIS 221 F Introduction to C\# Programming (3)

Three hours lecture and one hour lab per week. Students will learn basic programming concepts including variables, logical constructions, and data access. Students will also learn to use the C\# programming language to create Graphical User Interface programs, web programs, and database computers. (CSU) (Degree Credit)

## CIS 222 F CGI/Perl Scripting (3)

## Advisory: Complete CIS 152 F

Three hours lecture and two hours lab per week. This course teaches the Perl scripting language. Topics include using Perl in Web Pages with CGI. Topics include basic Perl syntax, data types, and functions. Topics also include using Perl with files and databases. Students must have a working knowledge of HTML. (CSU) (Degree Credit)

## CIS 223 F Programming in C++ (3)

Advisory: CIS 226 F or CIS 211 F
Three hours lecture and two hours lab per week. This course is designed for students who have some experience with structured programming techniques. Students will learn the C++ programming language as it applies to business applications. Documenting, coding, entering, computing, and executing programs will take place on the personal computer. (CSU) (UC Credit Limitation - CIS 223 F and CSCl 233 F combined: maximum credit one course) (Degree Credit)

## CIS 225 F Netware System Manager (3)

Three hours lecture and two hours lab per week arranged. This course covers terminology, technology, topologies, and software used in local area networks. The course is designed for computer users and managers of local area networks. System administrators will learn to support users, save user accounts, implement levels of security, apply diagnostics, and back up and maintain LAN software. Course may be taken twice for credit. (CSU) (Degree Credit)

## CIS 226 F Java Programming I (3)

Advisory: CIS 211 F or CIS 217 F or CIS 223 F with a grade of "C" or better
Three hours lecture and two hours lab per week. This course is an introduction to designing, creating, and debugging Java programs. Students will learn the syntax of the Java programming language, how to design programs using Object Oriented Analysis and Design, and how to create programs that run over the Internet as well as stand-alone programs. Emphasis is placed on program design, using Java programs with HTML pages, and software re-use. (CSU) (UC) (Degree Credit)

## CIS 227 F Advanced C\# Programming (3)

Advisory: Basic knowledge of the C\# programming language Three hours lecture and two hours lab per week. Students learn how to create C\# networking programs, Web Server programs, and complex database programs. (CSU) (Degree Credit)

## CIS 228 F Java Programming II (3)

Advisory: CIS 226 F and CIS 107 F with a grade of " $C$ " or better Three hours lecture and two hours lab per week. This course covers advanced topics in Java programming. Topics include using the Java Swing programming environment, the COBRA programming models, event driven and messaging based structure of programs, and Java network programming. Students should be familiar with Microsoft Windows and with the Java programming language. (CSU) (Degree Credit)

## CIS 229 F XML Programming (3)

Advisory: CIS 159 F
Three hours lecture and two hours lab per week. This course covers XML programming. Topics include using XML parsers in JavaScript and Java, using XML for file input/output, and connecting to XML databases. Students must have a working knowledge of XML. (CSU) (Degree Credit)

## CIS 230 F PHP and MySQL Programming (3)

Advisory: CIS 152 F and CIS 154 F
Three hours lecture and two hours lab per week. This class teaches how to use the PHP Web programming language and MySQL database program to create interactive, database-driven Web sites. Students learn how to create PHP enhanced pages, how to install and configure MySQL, and how to connect Web clients to the database. This course may be taken four times for credit. (CSU) (Degree Credit)

## CIS 242 F Database II (2)

Advisory: CIS 142 F
One and one-half hour lecture and one and one-half hour lab per week. This course teaches advanced topics in personal databases using state-of-the-art database software. Students will learn how to design and implement complex databases, how to create complex queries and how to use Structured Query Language, how to create personal databases with other applications, and how to write database macro programs. Other topics include the theory of database design, interfacing personal databases with external databases, and creating internet personal databases. Students in this course should have fundamental skills in using a personal database. (CSU) (Degree Credit)

## CIS 252 F Web Page Design III (2)

Advisory: CIS 152 F
One and one-half hour lecture and one and one-half hour lab per week. This course presents advanced topics in Web page design. Students will learn how to create Web pages that include style sheets, how to use multimedia objects, how to plan and manage large-scale Web sites, how to use client plug-ins, how to work with CGI, Java, and other server side technologies, how to design effective user interfaces, and how to use elements of dynamic HTML. Other topics include using JavaScript, using VBScript, working with different types of graphic objects, and working with the Document Object Model. Students should have a working knowledge of HTML and have created Web pages with HTML. (CSU) (Degree Credit)

## CIS 254 F JavaScript Programming II (2)

Advisory: CIS 154 F
One and one-half hour lecture and one and one-half hour lab per week. This course teaches advanced concepts in JavaScript. Students learn how to use JavaScript for client and server side design and implementation. Students must have a working knowledge of JavaScript (completing CIS 154 F with a grade of "C" or better). (CSU) (Degree Credit)

## CIS 255 F Web Page Multimedia Design II (2)

Advisory: CIS 152 F
One and one half hour lecture and one and one-half hour lab per week. This course teaches advanced concepts in Flash. Students learn how to use advanced features of Flash to create and script Web pages. Topics include using Flash interactively, connecting Flash scripts to servers, and connecting Flash scripts to databases. Students should have a working knowledge of Flash. (CSU) (Degree Credit)

## CIS 257 F Dreamweaver III (3) <br> Advisory: CIS 157AF

Three hours lecture and two hours lab per week. This course covers advanced topics in Dreamweaver. Topics include using layers, styles, and automation to create web pages. Topics also include using Dreamweaver with JavaScript and other Web components. Students should be familiar with Dreamweaver. (CSU) (Degree Credit)

## CIS 260 F Solaris System Administration (3)

## Advisory: CIS 290 F

Three hours lecture and 2 hours lab per week. This course provides students with the necessary knowledge and skills to perform essential system administration tasks in the Sun Solaris Unix Operating System. Students must have a working knowledge of Unix. Topics include file system management, security, process control, user administration, device management, name services, backup procedures, installation, and application of patches. (CSU) (Degree Credit)

## CIS 270 F SQL Server Administration (3)

Advisory: CIS 180 F and CIS 107 F with a grade of " $C$ " or better
Three hours lecture and one hour lab per week. This course introduces students to the administration of Microsoft SQL Server. Students learn an overview of the SQL server environment, installing and administering SQL server, user and database management, and operating SQL server in a networking environment. Emphasis is placed on installing and administering SQL server, setting up user accounts and use access, and managing resources. (CSU) (Degree Credit)

## CIS 280 F Intro to Oracle: SQL and PL/SQL (3)

## Advisory: CIS 142 F

Three hours lecture and two hours lab per week. This course offers students an extensive introduction to database technology. The class covers the concepts of relational databases and the powerful SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. In addition, students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Demonstrations and hands-on practice reinforce the fundamental concepts. (CSU) (Degree Credit)

## CIS 281 F Introduction to Networking Hardware (3)

Three hours of lecture and one hour of lab per week. This course builds on students' knowledge of basic networking concepts and theory through hands-on experience. The course will provide students with an in-depth understanding of network infrastructure, standards and technologies. Students will gain hands-on experience with current network design issues, protocols, and components. Hands-on experience will also include working with wired and wireless standards and network components such as servers, routers, switches, hubs and firewalls. (CSU) (Degree Credit)

## CIS 284 F Windows Professional (2)

Advisory: CIS 180 F and CIS 107 F with a grade of " $C$ " or better One and one-half hour lecture and one and one-half hour lab per week. This course introduces students to Microsoft Windows Professional. Students learn an overview of the Windows environment, installing and administering Professional, software management, performance tuning, and connecting to a network. Emphasis is placed on configuring Windows Professional as a network client. (CSU) (Degree Credit)

## CIS 285 F Windows Server (3)

Advisory: CIS 180 F and CIS 107 F both with a grade of " $C$ " or better Three hours lecture and one hour lab per week. This course introduces students to Microsoft Windows Server and enterprise networks. Students learn an overview of the Windows environment, installing and administering servers, domain management and networking. Emphasis is placed on managing a Windows network, setting up user accounts and user access, and managing resources. (CSU) (Degree Credit)

## CIS 286 F Web Server Management (3)

Advisory: CIS 180 F and CIS 107 F with a grade of "C" or better Three hours lecture and one hour lab per week. This course introduces students to Microsoft Windows Information Server and enterprise networks. Students learn an overview of the Windows environment, installing and administering Internet information server, domain management and networking. Emphasis is placed on managing Internet information server, setting up user accounts and user access, and managing resources. (CSU) (Degree Credit)

## CIS 287 F Exchange Server (3)

Advisory: CIS 180 F and CIS 107 F with a grade of "C" or better Three hours lecture and one hour lab per week. This course introduces students to the administration of Microsoft Exchange Server. Students learn an overview of the Exchange server environment, installing and administering Exchange server, user and database management, and operating Exchange server in a networking environment. Emphasis is placed on installing and administering Exchange server, setting up user accounts and user access, and managing resources. (CSU) (Degree Credit)

## CIS 289 F Windows Active Directory (3)

Advisory: CIS 180 F and CIS 107 F with a grade of "C" or better Three hours lecture and one hour lab per week. This course introduces students to Microsoft Windows Active Directory and enterprise networks. Students learn an overview of the Windows environment, installing and administering DNS servers, Active Directory management and networking. Emphasis is placed on managing a Windows Active Directory network, setting up user accounts and user access and managing resources. (CSU) (Degree Credit)

## CIS 290 F Unix Operating System (3)

Advisory: CIS 107 F
Three hours lecture and two hours lab per week. This course is an introduction to the Unix operating system. Topics include installing and configuring Unix, using Unix utilities to manage files and resources, and using Unix on a network. Other topics include installing and configuring common Unix graphical user interfaces, solving operating system problems, and interfacing Unix with other operating systems. Students should be familiar with another operating system such a Microsoft Windows or Windows NT. (CSU) (Degree Credit)

## CIS 291 F Enterprise Networking (3)

Advisory: CIS 180 F and either CIS 285 F, CIS 225 F or CIS 260 F Three hours lecture and two hours lab per week. This class teaches concepts and skills in enterprise networking. Topics include cross platform and enterprise level networking hardware and software including DNS, routing, backups, security, and integrating and managing servers running different network operating systems. Students will get hands-on experience configuring different network operating systems to work in an enterprise network. (CSU) (Degree Credit)

## CIS 298 F Advanced Computer Topics (.5-3)

Zero to three hours lecture and/or zero to nine hours lab per week. This course introduces advanced topics for students who wish to increase their knowledge and skills in various areas of computer information systems. Unit credit may range from 1-3 units in any given term. Consult the class schedule to verify credit for a particular term. (CSU) (Degree Credit)

## Computer Information Systems - Gaming (CISG)

## Business/CIS Division

Office: Bldg 300
714.992.7032

Dean: Ann Hovey
Website: http://bizdiv.fullcoll.edu
Pending State Approval
Computer Game Design Certificate
Computer Game Programming Certificate

## Computer Information Systems Gaming Courses

CISG 100 F Introduction to Computer Game Design (3)
Three hours lecture and one hour lab per week. This is an introductory survey class in computer game design. Students will learn the basics of how computer games are designed and created. This includes an overview of computer game graphics, computer game programming, game level design, game music development, computer game strategy and playability, and the entire computer game development process as well as the current gaming business. (CSU) (Degree Credit)

## CISG 110 F Introduction to Programming for Computer Games (3)

Advisory: Basic knowledge of a procedural or object-oriented programming language
Three hours lecture and one hour lab per week. This is an introductory survey course on computer game programming. Students will learn the basic game programming design process, the use and creation of game programming tools, basic game data structures, programming artificial intelligence, graphics programming, online and multi-user game design, 3-D engine design, and how game programmers interact with game designers. (CSU) (Degree Credit)

## CISG 160 F C\# for Game Programming (3)

Advisory: Basic knowledge of C\# programming language
Three hours lecture and one hour lab per week. This course teaches use of the C\# programming language to create computer games. Students will review the C\# programming language, learn how C\# uses .NET resources, and learn how to use DirectX. Topics also include using 3-D, sound, and animation. (CSU) (Degree Credit)

## CISG 165 F C++ for Game Programming (3)

Advisory: Knowledge of basic C++ programming
Three hours lecture and one hour lab per week. This course teaches students how to use C++ to write computer games. Topics include a review of basic $\mathrm{C}++$, how to use various data structures in $\mathrm{C}++$, how to access hardware devices, how to use various graphics libraries, and how to use basic networking resources in C++. Students will learn how to create basic graphics and text-based games in C++. (CSU) (Degree Credit)

## CISG 170 F Java for Game Programming (3)

Advisory: Basic knowledge of Java programming language
Three hours lecture and one hour lab per week. This course teaches students how to use Java to write computer games. Topics include a review of basic Java, how to use various data structures in Java, how to access hardware devices, how to use various graphics libraries, and how to use basic networking resources in Java. Students will learn how to create basic graphics and text-based games in Java. (CSU) (Degree Credit)

## CISG 175 F Game Programming in Flash (3)

Advisory: Basic knowledge of Flash
Three hours lecture and one hour lab per week. This course teaches students how to use Macromedia Flash to create games. Topics include a review of basic Flash concepts, basic ActionScript programming, creating Flash 3-D effects, using physics and motion in a game, including sound in a game, and creating the overall game design structure. (CSU) (Degree Credit)

## CISG 182 F DirectX Graphics Programming (3)

Advisory: Basic knowledge of C++ and .NET
Three hours lecture and one hour lab per week. This course introduces the student to using the DirectX graphics programming tools using $\mathrm{C}++$. Students learn the basics of DirectX, the general structure of the graphic libraries, and how to use DirectX to create 2-D and 3-D graphics, transform graphics, manage sound, and how it is used to create computer games. (CSU) (Degree Credit)

CISG 185 F Artificial Intelligence in Game Programming (3)

Advisory: General knowledge of the C++ or Java programming language
Three hours lecture and one hour lab per week. This course introduces the use of Artificial Intelligence techniques in game programming. Students learn the foundation of computer artificial intelligence (AI), basic Al techniques, and how such techniques are implemented in computer code and how they are used in different kinds of computer games. (CSU) (Degree Credit)

CISG 190 F Programming Multi-User Online Games (3)
Advisory: Basic knowledge of a modern object-oriented programming language and general network concepts
Three hours lecture and one hour lab per week. This class is an introduction to programming online multi-player games. Students learn basic networking technology, network programming, and are introduced to the operation of network servers. Students also learn how to write code to link client computer games with network game servers and how to create server side game scripts. (CSU) (Degree Credit)

## Computer Science (CSCI)

Mathematics and Computer Science Division<br>Office: Bldg 600, Room 613-02<br>714.992.7041<br>Dean: Mark Greenhalgh<br>Website: math.fullcoll.edu

## Computer Science Associate in Science Degree

## Computer Science Courses

## CSCI 123 F Introduction to Programming Concepts

## in C++ (4)

Prerequisite: MATH 141 F or MATH 142 F, or equivalent with a grade of " $C$ " or better
Four hours lecture and one hour arranged per week. This course is an introduction to the basic principles of programming using C++ as the development tool. Topics include the structure and design of algorithms, input/output, branching structures, functions, recursion, built-in data types, arrays, structures, files, pointers and elementary operations on linked structures. The object-oriented programming paradigm will be introduced. Topics include encapsulation, polymorphism, libraries, streams, inheritance and abstract data types. Students will design algorithms, write external and internal documentation and design and write source code in C++. (CSU) (UC) (Degree Credit) AA GE

## CSCI 133 F Data Structures in C++ (4)

Prerequisite: CSCI 123 F or equivalent, with a grade of "C" or better Four hours lecture and one hour arranged per week. This is a course in algorithm design and data structures implemented using C++. Data structures examined are arrays, linked lists, stacks, queues, trees, tables, and graphs. Algorithm topics include hashing, sorting, heaps, searches and algorithm efficiency using Big-O notation. Students will create and modify class libraries to implement these structures. (CSU) (UC) (Degree Credit)

## CSCI 223 F C Language for Mathematics and Science (4)

Prerequisite: CSCI 123 F or one prior programming language with a grade of "C" or better
Four hours lecture and one hour arranged per week. This course is an introduction to the C programming language. One of the latest C compilers will be used on a personal computer. Topics include data types, functions, pointers, bit manipulation and file I/O. Students will design, code and test program applications in the mathematics, scientific and engineering environments. (CSU) (UC) (Degree Credit)

## CSCI 241 F Computer Organization and Assembly Language Programming (4)

Prerequisite: CSCI 133 F or CSCI 223 F, both with a grade of " $C$ " or better
Four hours lecture and one hour arranged per week. This course is an introduction to assembly language programming. It includes reviews of computer organization, programming techniques and concepts, addressing techniques, input/output, hardware architecture, and data structures. (CSU) (UC credit limitation) (Degree Credit)

## Construction (CSTR)

Technology and Engineering Division<br>Office: Bldg 700<br>714.992.7577<br>Dean: Scott McKenzie<br>Website: techneng.fullcoll.edu<br>Construction Estimating Certificate<br>Construction Inspection Associate in Science Degree<br>Construction Inspection Certificate<br>Construction Management Associate in Science Degree<br>Construction Technology Associate in Science Degree<br>Construction Technology Certificate

## Construction Courses

## CSTR 005 F Construction Technology Lab (.5-2)

Open Entry/Open Exit
Twenty-four hours lab for each .5 unit credit. This course offers students the opportunity to further develop their skills at hand and power tool operations, and to devote more time to construction projects. One-half unit credit will be given for each twenty-four hours of lab participation. Course may be taken four times for credit for a maximum of 8 units. (Degree Credit)

## CSTR 006 F Introduction to Residential Plumbing and Mechanical Systems (3)

Three hours lecture per week. Fundamentals of residential plumbing, heating, air conditioning, and ventilation. (Degree Credit)

## CSTR 007 F Residential Electrical Systems (2)

One and one-half hours lecture and one and one-half hours lab per week. This course is an introduction to load center sizing, wiring circuits and grounding systems used in residential construction. Lab exercises will cover the wiring of lighting and power circuits, dedicated circuits, grounding and troubleshooting. (Degree Credit)

## CSTR 014 F Contractors' License Law (3)

Three hours lecture per week. Covers the problems in the legal and practical aspects of contracting: Contractors' License Law, the Mechanic's Lien Law, labor code, Worker's Compensation, and Insurance. Business management for both the private and public sector will also be covered. This course will prepare the student to pass the Law and Business Exam required for a Contractors' License in the state of California. (Degree Credit)

## CSTR 015 F Construction Management (3)

Three hours lecture per week. The course covers the organization and problems associated with managing a building construction business. Topics will include sales, bidding, contracts, purchasing, scheduling, safety, and community relations. (Degree Credit)

## CSTR 016 F Business Administration for the Construction Industry (3)

Three hours lecture per week. Provides the student with instruction in the practical aspects of business administration concepts and practices within the construction industry. The course surveys successful operating techniques, business structure, business plans, ownership, accounting, marketing, finance, taxation and business regulations. (Degree Credit)

## CSTR 018 F Residential Construction Practice II (4) Prerequisite: CSTR 102 F

Two hours lecture and six hours lab per week. Provides actual practice in the finish work of the house project. Course work includes: insulating, dry walling, door installation, finish hardware, finish plumbing, finish electrical, finish trim, painting, and any finishing processes that are deemed necessary to complete the house project. (Degree Credit)

## CSTR 020 F Remodeling and Additions Construction I (4)

## Prerequisite: CSTR 100 F

Two hours lecture and six hours lab per week. Experiences in room additions and remodeling construction with emphasis on: starting the job, scheduling, estimating, job progress, and people relations. Tie-ins, foundations, plumbing, framing, roofing, electrical and mechanical areas will be covered. (Degree Credit)

## CSTR 022 F Remodeling and Additions Construction II (4)

 Prerequisite: CSTR 102 FTwo hours lecture and six hours lab per week. This course will provide the experiences in finish work in remodeling and additions to include patching and finish carpentry, electrical, plumbing, and heating. (Degree Credit)

## CSTR 028 F Introduction to Alternate Energy (2)

Two hours lecture per week. Course provides an overview of the world energy situation and a study into alternate energy sources. Solar water heating, solar space heating and cooling, photovoltaics, geothermal, wind generators, and others will be studied. (Degree Credit)

## CSTR 030 F Construction Blueprint Reading (3)

Three hours lecture per week. Interpretation of architectural working drawings as they relate to residential and light commercial construction. The meaning of various lines, symbols, and conventions as well as construction documents will be covered. (Degree Credit)

## CSTR 031 F International Building Code (3)

Three hours lecture per week. Topics of instruction will follow the content of the most recent published adoption of the International Building Code. The student will study the building codes as they pertain to commercial and industrial construction. (Degree Credit)

## CSTR 032 F Uniform Plumbing Code (3)

Three hours lecture per week. Topics of instruction will follow the content of the most recent Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials. (Degree Credit)

## CSTR 033 F Commercial Construction Blueprint Reading (3)

Three hours lecture per week. Course emphasizes the interpretation of commercial architectural drawings as they relate to commercial construction industry. Contract documents, specifications, site work, structural steel construction, reinforced concrete, mechanical systems, and electrical systems will be covered. Knowledge and understanding of residential blueprints are recommended. (Degree Credit)

CSTR 034 F National Electrical Code (3)
Three hours lecture per week. Topics of instruction will follow the content of the most recent National Electrical Code as published by the National Fire Protection Association. (Degree Credit)

CSTR 035 F California Accessibility \& Energy Costs (3) Three hours lecture per week. Interpretation and application of the California Code of Regulations (Title 24) as it pertains to various types of structures within the building industry. Special emphasis will be placed on California Energy Regulations and modifications for the disabled for accessibility requirements. (Degree Credit)

## CSTR 036 F Uniform Building Code - Residential (3)

Three hours lecture per week. Topics of instruction will follow the content of the most recent Uniform Building Code as published by the International Conference of Building Officials. The course will study the codes related to residential construction. (Degree Credit)

## CSTR 037 F Uniform Building Code - Commercial/ Industrial (3)

Three hours lecture per week. Topics of instruction will follow the content of the most recent Uniform Building Code as published by the International Conference of Building Officials. The course will study the codes related to commercial and industrial construction. (Degree Credit)

## CSTR 038 F Uniform Mechanical Code (3)

Three hours lecture per week. Topics of instruction will follow the content of the most recent Uniform Mechanical Code as published by the International Conference of Building Officials. The course will study the codes related to commercial and industrial construction. (Degree Credit)

## CSTR 039 F Commercial Mechanical Code (3)

Three hours lecture per week. This course has been designed for the individual who deals with the design of heating, cooling, ventilation and refrigeration in larger, more complex type buildings. Training received in this course will make the individual aware of the areas where the Building and Mechanical Codes overlap. (Degree Credit)

## CSTR 040 F Building Design for Hazardous Materials (3) Advisory: ET 200 F

Three hours lecture per week. The course is designed to introduce the student to the provisions of the Building and Fire Codes affecting the storage, handling and use of hazardous materials. Emphasis will be placed on the requirements for the safety aspects of the codes and recognized standards for solutions. Instruction will focus on problem solving with compliance to the building standards. (Degree Credit)

## CSTR 041 F International Residential Code (3)

Three hours lecture per week. Topics of instruction will follow the content of the most recent published adoption of the International Residential Code. The student will study the residential codes as they pertain to residential construction. (Degree Credit)

## CSTR 042 F Residential Steel Frame Construction (4)

Three hours lecture and three hours lab per week. This is a comprehensive course that covers the fundamentals of utilizing light frame steel for residential and light commercial. Course emphasizes the safe use of hand and power tools, construction terminology, plan interpretation, and construction practices for foundation systems, and wall, ceiling, and roof framing. (Degree Credit)

## CSTR 050 F Computer Design Software for the Contractor (2)

One and one-half hours lecture and two and one-half hours lab per week. This course provides the student with instruction in the concepts and practices associated with using computer architectural design software to prepare students in the preparation of designs, blueprints, and material lists for the construction industry. Students will process programs that demonstrate features and functions of the architectural design software. (Degree Credit)

## CSTR 060 F Computer Estimating in Construction (3)

Two hours lecture and three hours computer lab per week. This course provides the student with instruction in the concepts and practices with using computer estimating software for estimating positions within the construction industry. Students will process programs that demonstrate features and functions of the estimating software. Knowledge and understanding of blueprint reading is beneficial. (Degree Credit)

## CSTR 065 F Construction Project Scheduling (3)

Two hours lecture and three hours lab per week. This course provides the student with instruction in the concepts and practices associated with using project scheduling software currently used in the construction industry. Students will learn the practical application practices and demonstrate their ability to use the software and concepts associated with construction scheduling. (Degree Credit)

## CSTR 100 F Beginning Residential Construction (4)

Three hours lecture and three hours lab per week. Course emphasizes the safe use of hand and power tools, construction terminology, plan interpretation and construction practices in: ground work, foundation systems, wall framing, ceiling framing, roof framing, and roofing materials. (CSU) (Degree Credit)

## CSTR 102 F Residential Finish Construction (4)

Three hours lecture and three hours lab per week. Units of instruction to include: tool usage and safety, terminology, drywall installation and finishing, setting of door frames and hanging doors, installation of casing and base, finish hardware, paneling, railings, stairs, and trim/detail. (CSU) (Degree Credit)

## CSTR 104 F Concrete and Masonry (3)

Two and one-half hour lecture and one and one-half hour lab per week. The course includes units of instruction in basic concrete technology, concrete testing, concrete placing and finishing, masonry units - block and brick, masonry tools and methods. (CSU) (Degree Credit)

## CSTR 108 F Surveying for Builders (2)

One hour lecture and three hours lab per week. This is a course for builders and contractors, both general and sub. It includes surveying instruments, surveying practice for construction limited to plot layouts, simple topography as on hillside lots, establishing grade points, using bench marks and other references. Basic applied trigonometry will be reviewed. (CSU) (Degree Credit)

## CSTR 110 F Residential Estimating (3)

Three hours lecture per week. Stresses residential blueprint reading, estimating, and material listing. Includes site preparation, foundations, framing, exterior finish, interior finish, roofing, hardware, and various specialty trade subcontracts. (CSU) (Degree Credit)

CSTR 112 F Construction Materials, Specifications, and Purchasing (2)
Two hours lecture per week. The course covers the study of building materials as used in modern building construction and how they are represented in working drawings and specifications. (CSU) (Degree Credit)

## CSTR 116 F Residential Construction Practice I (4) <br> Prerequisite: CSTR 100 F

Two hours lecture and six hours lab per week. Provides actual practice in the construction of a house project. Course emphasizes the correct and safe use of tools, rough framing problems, rough electrical, rough plumbing, mechanical systems, roofing, flashing, and exterior finish. (CSU) (Degree Credit)

## Cosmetology (COSM)

Technology and Engineering Division
Office: Bldg 700, Room 711
714.992.7123

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Associate in Science Degree

Cosmetology Certificate
Esthetician Certificate
Cosmetology Instructor — Associate in Science Degree

## Cosmetology Courses

## COSM 041 F Esthetician: Level 1 (10)

Prerequisite: 10th grade education or equivalent
Advisory: Must be 17 years of age when applying for State Board Examination
This course includes basic skin care procedures and techniques; analysis of the skin; facial treatments (manual, electrical and chemical); facial massage manipulations; temporary hair removal (tweezing and waxing); makeup techniques and applications; health, safety and sanitation precautions and procedures; bacteriology, chemistry, electricity, anatomy and physiology; professional ethics, hygiene, personality development, personal and professional management. Related subjects, as they are applicable to Esthetics, are covered. This program is designed toward preparation for the Board of Barbering and Cosmetology Examination, and a successful career as an esthetician. Ten (10) units are given for 300 hours of coursework completed with a " $C$ " or better average. This is the first of two consecutive segments. (Degree Credit) Pivot Point Member School.

## COSM 042 F Esthetician: Level 2 (10)

Prerequisite: COSM 041 F with a grade of " $C$ " or better; or equivalent Advisory: Must be 17 years of age when applying for State Board Examination
This course includes an advanced study of skin care procedures and techniques; analysis of the skin; facial treatments (manual, electrical and chemical); facial massage manipulations (European, lymphatic and acupressure); temporary hair removal (tweezing and waxing); makeup techniques and applications; hygiene, health, safety and sanitation precautions and procedures; chemistry, electricity; professional ethics, growth and personality development; personal, professional and business management; advanced topics and procedures (aromatherapy, spa treatments, chemical exfoliation). Related subjects, as they are applicable to Esthetics, are covered. This program is designed toward preparation for the Board of Barbering and Cosmetology Examination, and a successful career as an esthetician. Ten (10) units are given for 300 hours of coursework completed with a "C" or better average. This is the first of two consecutive segments. (Degree Credit) Pivot Point Member School.

## COSM 043 F Advanced Topics in Esthetics (.5-3)

Prerequisite: COSM 042 F or COSM O55EF or a valid Esthetician or Cosmetology License
Advisory: Completed 10th grade level or its equivalent
Zero to three lecture and/or zero to nine lab hours per week. This course is designed to meet the needs of the Esthetician industry that requires advanced training, continuing education, and provides professional growth for licensed Estheticians and Cosmetologists. This course will be offered in modules of advanced topics. Unit credit ranges from .5-3 units per module. Consult the class schedule to verify specific topic areas, credit offered for each topic and fees. Fullerton College is a Pivot Point Member School. (Degree Credit)

## COSM 055AF Cosmetology: Level 1 (11)

Prerequisite: 10th grade education or equivalent
Advisory: Must be 17 years of age when applying for State Board Examination
This course includes basic hair styling, manicuring, facial, and day make-up, permanent waving, scalp treatments, hair cutting, tinting, and bleaching. Related subjects, as they are applicable to cosmetology, are covered. The program is designed toward preparation for the Bureau of Barbering and Cosmetology examination, and a successful career as a cosmetologist. Eleven (11) units will be given for 320 hours of class work completed with a "C" or better average. This is the first of five consecutive segments. (Degree Credit) Pivot Point Member School.

## COSM 055BF Cosmetology: Level 2 (11)

Prerequisite: COSM 055AF with a grade of " $C$ " or better; or equivalent
Advisory: Must be 17 years of age when applying for State Board Examination
The course includes basic hair styling, manicuring, facials, make-up, permanent waving, scalp treatments, hair cutting, tinting and bleaching, soft permanent wave and chemical relaxing-sodium hydroxide. Related subjects, as they are applicable to cosmetology, are covered. The program is designed toward preparation for the California Bureau of Barbering and Cosmetology examination, and a successful career as a cosmetologist. Eleven (11) units are given for 320 hours of class work completed with a "C" or better average. This is the second of five consecutive segments. (Degree Credit) Pivot Point Member School.

COSM 055CF Cosmetology: Level 3 (11)
Prerequisite: COSM 055BF with a grade of "C" or better; or equivalent
Advisory: Must be 17 years of age when applying for State Board Examination
The course includes hair design, manicuring and pedicuring, acrylic nails, facials and corrective make-up, salon permanent waving/chemical texturizing scalp treatments, hair sculpting, color design, soft curl permanent wave/chemical texturizing and chemical relaxing/texturizing. Related subjects, as they are applicable to cosmetology, are covered. The program is designed toward preparation for the California Bureau of Barbering and Cosmetology examination, and a successful career as a cosmetologist. Eleven (11) units are given for 320 hours of class work completed with a " C " or better average. (Degree Credit) Pivot Point Member School.

## COSM 055DF Cosmetology: Level 4 (11)

Prerequisite: COSM 055CF with a grade of "C" or better; or equivalent
Advisory: Must be 17 years of age when applying for State Board Examination
The course includes advanced hair design, advanced manicuring, advanced facials and make-up, advanced permanent waving/chemical texturizing, advanced hair sculpting, extensions, advanced color design, and advanced chemical relaxing-sodium hydroxide. Related subjects, as they are applicable to cosmetology, are covered. The program is designed toward preparation for the California Bureau of Barbering and Cosmetology Examination, and a successful career as a cosmetologist. Eleven (11) units are given for 320 hours of class work completed with a "C" or better average. (Degree Credit) Pivot Point Member School.

## COSM 055EF Cosmetology: Level 5 (11)

Prerequisite: COSM 055DF with a grade of "C" or better; or equivalent
The course includes salon hair design, salon hair sculpting, salon manicuring and pedicuring, salon facials and makeup, salon hair removal, salon permanent design, electrical and manual scalp relaxing-sodium hydroxide. Related subjects, as they are applicable to cosmetology, are covered. The course also includes State Board of Barbering and Cosmetology mock written and performance examinations. The program is designed toward preparation for the Board of Barbering and Cosmetology Examination, and a successful career as a cosmetologist. Eleven (11) units are given for 320 hours of class work completed with a "C" or better average. This is the fifth of five consecutive segments. (Degree Credit.) Pivot Point Member School.

COSM 060 F Instruction Techniques in Cosmetology (15) Prerequisite: COSM 051AF, COSM 051BF, COSM 051CF, COSM 051DF with a "B" average or better. Valid California cosmetology license. Verified work experience as a cosmetologist in a licensed cosmetological establishment. Minimum of five year's experience, one year of which is within the last two years.
Designed to prepare the student for the teacher's examination required by the California Bureau of Barbering and Cosmetology and enable the student to secure employment as an instructor in a private beauty school. The lecture section consists of demonstrations in teaching with the student participating in both lectures of related information and practical trade demonstrations. A lab period involves the instructor trainee in the teaching of Cosmetology students in practical salon work. Fifteen units for 600 clock hours of technical instruction. Offered as a selfpacing, open entry course with flexible hours with a minimum of twelve lab hours per week. Pivot Point Member School. (Degree Credit)

## COSM 061 AF Pivot Point Instruction (1)

Prerequisite: Valid California Cosmetology License and Cosmetology Instructor's License or proof of enrollment in an Instructor Trainee Program
This course is specifically designed for cosmetologists, instructors, and instructor trainees that need to know and teach Pivot Point techniques to obtain employment in most community college Cosmetology departments and progressive salons or private schools. Pivot Point Member School. (Degree Credit)

## COSM 061BF Pivot Point Instruction (1)

Prerequisite: Valid California Cosmetology License and Cosmetology Instructor's License or proof of enrollment in an Instructor Trainee Program
This course is specifically designed for cosmetologists, instructors, and instructor trainees that need to know and teach Pivot Point techniques to obtain employment in most community college Cosmetology departments and progressive salons or private schools. Pivot Point member School. (Degree Credit)

## COSM 061CF Pivot Point Instruction (1)

Prerequisite: Valid California Cosmetology License and Cosmetology Instructor's License or proof of enrollment in an Instructor Trainee Program
This program course is specifically designed for cosmetologists, instructors, and instructor trainees that need to know and teach Pivot Point techniques to obtain employment in most community college Cosmetology departments and progressive salons or private schools. Pivot Point Member School. (Degree Credit)

## COSM 070 F Continuing Education Instruction Techniques in Cosmetology (2)

Open Entry/Open Exit
Prerequisite: Valid California Cosmetology Instructor's License
Designed to meet the criteria for minimum hours of continuing education required for renewal of an instructor's license. The lecture consists of demonstration in teaching with student participating in both lectures of related information and practical trade demonstration. Mandatory four hours lab per week. Course may be taken four times for credit. Pivot Point Member School. (Degree Credit)

## Counseling and Guidance (COUN)

Counseling and Student Development Division<br>Office: Bldg 2000<br>714.992.7084<br>Dean: Lisa Campbell<br>Website: counseling.fullcoll.edu

## Counseling and Guidance Courses

## COUN 050 F College Orientation (1)

Pass/No Pass only
Eighteen hours lecture and activities per term. This course is designed to satisfy the California Community Colleges Matriculation requirements of Assessment, Orientation, and Counseling/Advising. The course will familiarize the student with Fullerton College associate degree, certificate and transfer requirements. Students will explore the rules, policies and campus resources of Fullerton College. (Degree Credit)

## COUN 060 F Academic Success (1)

Pass/No Pass only
Eighteen hours lecture and activities per term. This course is designed to promote student success. Students will develop skills in time management, decision making, study techniques and learning strategies. Students will increase their awareness of community resources, current college policies and procedures and cultural diversity. (Degree Credit)

## COUN 093 F Managing College Finances (1)

One hour of lecture per week or equivalent. This course is designed to assist students in analyzing and incorporating basic strategies for managing college finances. Students will identify adult related tasks such as personal budget management, maximizing their financial aid benefits and other financial resources, distinguishing between various repayment options and the consequences related to mismanagement of funds. Recognize and minimize the factors leading to financial aid probation, thereby ensuring a successful degree completion and/or transfer program.

## COUN 101 F The College Experience (2)

Thirty-six hours lecture and activities per term. This course will facilitate an understanding of the issues involved in having a successful college experience. The emphasis includes four major components of study: self-exploration; development of academic and survival skills; awareness of higher education; and transfer exploration and vocational options. Topics will include: student development theory, purpose for attending college, maintaining health, development of positive self-esteem, strategies for living a balanced life, and acquisition of academic and survival skills. Students will develop knowledge of college resources, policies and procedures. (CSU) (Degree Credit)

## COUN 110 F Teaching as a Career (3-4)

Letter Grade or Pass/No Pass option
Thirty-six hours lecture and 50-100 fieldwork hours per term. Orientation to teaching as a profession. This course surveys the nature of the work, qualifications, supply and demand for teachers. A field work experience including observation and assistance in a school and/or community agency is required. This course is designed for prospective teachers. (CSU) (Degree Credit)

## COUN 135 F Introduction to Leadership Development (same as STSV 135 F) (3)

Three hours lecture per week. This course is designed to provide emerging and existing student leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills for application in multiple roles throughout their lifetime. Students will learn the role that communication, motivation, delegation, self-assessment, planning, time management, stress management, evaluation and governance play in developing successful leaders, working relationships, and organizations. Focus will include parliamentary procedure, program development, stress reduction, and time management. Students who receive credit in this course will not receive credit in STSV 135 F. (CSU) (Degree Credit)

## COUN 136 F Applied Leadership

## (same as STSV 136 F) (3)

One hour lecture and two hours participation in campus organizations required each week. The course is designed to give students the skills and proper knowledge to participate in student government. Students critically reflect on their goals, objectives and action plans and review their own performance along with assessing the organizational environment. This course is equivalent to STSV 136 F , three units maximum can be earned for any combination. (CSU) (Degree Credit)

## COUN 140 F Educational Planning (.5)

Pass/No Pass only
Eight hours of lecture and activities per term. Students taking this course will receive an overview of graduation requirements, transfer requirements, campus policies, student services and career planning. Strongly recommended for first-time students with declared majors or enrollment in specific programs. Course sections may be designated for specific majors or programs. (CSU) (Degree Credit)

## COUN 141 F Career Exploration (1)

Letter Grade or Pass/No Pass option
Eighteen hours lecture and activities per term. This course is designed to introduce students too a career decision-making process which includes both evaluation of the self and exploration of the world of work. Selfevaluation activities include identification of personality/temperament, interests, skills, goals and values. Career research activities are utilized to examine the world at work. The focus of the course is on selfdescription in relation to the choice of occupation and career. (CSU) (Degree Credit)

## COUN 143 F Creative Job Search (1)

Letter Grade or Pass/No Pass option
Eighteen hours lecture and activities per term. This course will cover the basic practical aspects of conducting a successful job search. The focus will be on application, cover letter, resume, and interview as well as labor market research. (CSU) (Degree Credit)

## COUN 144 F Career Motivation and Self-Confidence (1)

 Letter Grade or Pass/No Pass optionEighteen hours lecture and activities per term. This course is designed to help students identify individual differences, examine personal characteristics and behavior, and evaluate self-concept. Students will interpret information and apply knowledge of self as related to career demands and opportunities with increased motivation and self-confidence. (CSU) (Degree Credit)

## COUN 148 F Human Potential (1)

Letter Grade or Pass/No Pass option
Eighteen hours lecture and activities per term. This course will help students to understand and enhance their self-concept through an exploration of how that self-concept directs behavior patterns. This course will also enable students to examine and assess their strengths and potential, values and decision-making skills in order to develop an improved self-concept, and improve communication and listening skills. By becoming aware of their individual potential, students can plan and achieve their educational goals. (CSU) (Degree Credit)

## COUN 151 F Career/Life Planning (3)

Letter Grade or Pass/No Pass option
Fifty-four hours of lecture and activities per term. A course designed for, but not restricted to, undecided students and persons in career transition. Includes self-exploration, career exploration and job search strategies. Specific topics include adult development theory and the changes that occur over the life span, extensive exploration and assessment of one's skills, values, interests and personality, analysis of career possibilities to determine individual fit, introduction to resources for educational and career planning, an intensive career investigation, decision making, goal setting and motivation, and job search and interview techniques. (CSU) (Degree Credit) CSU GE

## COUN 161 F Assertion Skills/Communication (1)

Letter Grade or Pass/No Pass option
One hour of lecture per week or equivalent. Course will equip students with a basic understanding of assertive communication and present skills, techniques and strategies for implementation of assertive communication behaviors. Course may be taken twice for credit. (CSU) (Degree Credit)

## COUN 163 F Personal Growth and Life Transitions (3)

Three hours lecture per week. This course will introduce students to life skills that can help them to achieve greater success in their educational, professional and personal lives. Topics include exploring one's life purpose, managing changes and transitions, achieving academic and career satisfaction, internal and external influences on educational and career pursuits, creating and maintaining a healthy lifestyle, and learning and employing effective communication skills and success strategies. Students will assess the impact these factors have on their lives in regards to decision making and assist them in identifying proactive skills for leading a purposeful life. (CSU) (Degree Credit) AA GE, CSU GE

## COUN 199 F Counseling and Guidance Independent Study (.5-2)

Letter Grade or Pass/No Pass option
Selected hours depend upon units assigned. Designed for students who wish to explore in depth various guidance-related topics. Unit credit may range from one-half to two units in any given semester. Consult class schedule for list of topics and to verify credit for the particular term. Students may enroll up to a maximum of three semesters. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

## Dance (DANC)

Physical Education Division
Office: Bldg 2200
714.992.7045

Dean: Peter Snyder

## Associate in Arts Degree <br> Dance Technique Certificate

## Dance Courses

DANC 100 F Introduction to Dance (3)
One and one-half hours lecture and one and one-half hours lab per week. Introduction to Dance Appreciation explores historical, multicultural and contemporary dance forms. The course will consist of a combination of lecture and activity. The student will experience various dance forms such as ballet, modern, jazz, folk, and ethnic. The emphasis will be on the history and understanding dance as an art form. Recommended for non-majors. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## DANC 101 F Introduction to Dance World Culture (2)

Three lab hours per week. This course will introduce social, folk, and square dancing from the different cultures of the world. Dance cultures that will be studied will include the dances of: Asia, Africa, Europe, Latin America, Middle East, Mexico, Native American, Polynesia, and Spain. This class will include research and study of the backgrounds of dances and cultures, and will provide opportunities for development of acceptable performance as preparation for more advanced technique courses. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## DANC 102 F Conditioning for Dance (1)

Two hours lab per week. This class is designed to prepare a student mentally and physically for dance. Students will learn floor mat exercises and a floor barre to increase flexibility, strength, body alignment and use of turn out. Relaxation and visualization techniques will be covered. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## DANC 103 F Dance Technique I (1)

Three hours lab per week. The course focuses on basic movement techniques to prepare the body for dance. This class also meets the needs of students who are interested in achieving fitness and contouring of the body by the use of dance technique. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE

## DANC 104 F Dance Technique II (1)

Prerequisite: DANC 103 F or instructor approval
Three hours lab per week. This class focuses on basic movement techniques to prepare the body for dance. This class also meets the needs of students who are interested in achieving fitness and contouring of the body by the use of dance technique. Course may be taken two times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## DANC 105 F Ballet I (1)

Three hours lab per week. This course is designed to instruct the beginning dance student in the fundamentals of ballet technique and terminology as well as acquainting the enrolled student with viewing and practicing ballet as a performing art form. This class includes work at the ballet barre, center floor and across the floor. Course may be taken four times for credit. AA Dance; Liberate Arts; satisfies PE requirement for General Education. (CSU) (UC) (Degree Credit) CSU GE

## DANC 106 F Ballet II (1)

Prerequisite: DANC 105 F or a minimum grade of " $C$ " or better in previous ballet experience or approval of instructor.
Three hours lab per week. This course is designed to continue the ballet training of the dance student. The class includes more advanced techniques at the barre and center floor and more advanced adagio and allegro dance sequences. Course may be taken four times for credit. AA Dance; Liberal Arts; satisfies PE requirement for General Education. (CSU) (UC) (Degree Credit) CSU GE

## DANC 107 F Modern Dance I (1)

Three hours lab per week. The class provides opportunities for the student to develop sensitivity to the use of body movement, space and time for creative expression. This class includes work on skill techniques, movement exploration and beginning dance composition. Course may be taken four times for credit. AA Dance; Liberal Arts; satisfies PE requirement for General Education. (CSU) (UC) (Degree Credit) CSU GE

## DANC 108 F Modern Dance II (1) <br> Prerequisite: DANC 107 F

Two hours lab per week. This course is designed to give more advanced experiences in skill techniques and compositional factors and devices. Individual and group choreography are incorporated into class structure. Course may be taken twice for credit. (CSU) (UC) (Degree Credit) CSU GE

## DANC 110 F Ballet Folklorico (1)

Two hours lab per week. This course is designed to give a general knowledge of the regional dance styles of Mexico and their cultural aspects. Students will be expected to learn various dance steps. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## DANC 111 F JazzI(1)

Three hours lab per week. This course is designed for the student who is interested in developing a jazz style in dance. This course includes basic techniques unique to the jazz form of dance including dance combinations to classical jazz music and contemporary music. Course may be taken four times for credit. AA Dance; Liberal Arts; satisfies PE requirement for General Education. (CSU) (UC) (Degree Credit) CSU GE

## DANC 112 F Jazz II (1)

Prerequisite: DANC 111 F
Two hours lab per week. This class is designed for the student who wishes to perfect his jazz style. The class includes more advanced work in turns, isolations, and combinations and work with more complex rhythmic elements. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## DANC 113 F Tap Dance I(1)

Three hours lab per week. This class is designed to introduce basic tap dance techniques and elementary tap dances, providing an opportunity to develop increased coordination and rhythm. Course may be taken twice for credit. Course may be taken twice for credit. (CSU) (UC) (Degree Credit) CSU GE

## DANC 114 F Tap Dance II (1)

Prerequisite: DANC 113 F or instructor approval
Three hours lab per week. This course provides opportunity for further development of tap dance skills at an intermediate level. Includes some provision for student composition. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## DANC 115 F Hip Hop Dance I (1)

Three hours lab per week. Students will learn various forms of beginning hip-hop dancing including pop and rock, hip-hop funk, syncopations and rhythms. A basic history of hip-hop culture will be discussed. Course may be taken four times for credit. (CSU Credit Limitation) (UC) (Degree Credit) CSU GE

## DANC 116 F Social Dance (1)

Three hours lab per week. This course gives students the opportunity to learn various social dance forms. It is designed for students with no dance experience as well as dance students who want to be introduced to new dance forms. Examples of dance forms that may be included are: swing, salsa (mambo), cha-cha, tang, waltz, country and fox trot. The course will focus on exploring the differences and similarities among styles and techniques while developing coordination skills. Historical studies and individual choreography will enhance the student's knowledge of each dance form as well as encourage creativity. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) CSU GE

## DANC 119 F Dance for Theatre (1)

Three hours lab per week. This class provides opportunities to explore various dance styles: ballet, jazz, modern and tap. The emphasis is on performing each dance style in an informal in-studio setting. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) CSU GE

## DANC 120 F Dance History (3)

Three lecture hours per week. Students will study dance forms from primitive to present day through readings, film, and class discussion. Students will also compare various dance techniques, theories, and personalities who have contributed to the art of dance. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## DANC 122 F Middle Eastern Dance (1)

Three hours of lab per week. This course is designed to explore various types of dances that are common in the Middle East (Belly dancing and dabke). The students will learn movement, perform, critique and analyze dance performances. Course may be taken four times for credit. (CSU) (Degree Credit)

DANC 130 F Afro Caribbean Dance (1)
Three hours lab per week. Students will learn the dance styles and rhythms of African and Caribbean cultures. Different regions of Africa, Puerto Rico, Brazil, Trinidad, Haiti, and the Dominican Republic. Dance as an inseparable part of the culture will be discussed. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) CSU GE

## DANC 132 F Flamenco Dance I (1)

Three hours lab per week. Students will study basic Flamenco Dance technique and learn movement combinations. This class provides students with the opportunity to develop coordination, rhythm, and performance skills. Some history of Flamenco will be included. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## DANC 150 F Commercial Dance (1)

Three hours lab per week. This course will focus on contemporary dance styles made popular from the television, film and video industry. Students will learn and create stylized commercial dance movement combinations using a variety of popular music. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## DANC 151 F Latin Jazz (1)

Three hours lab per week. Students will study and learn basic skills of Latin Jazz dance and styles inherent in Jazz and Afro-Caribbean dance and Latin Popular rhythms such as Cha Cha, Mambo, Salsa, Merengue, Bolero, Cumbia, and Corridos. Students will learn Latin Jazz combinations. This course may be taken four times for credit. Cost of dance concert admission will not exceed \$40. (CSU) (Degree Credit)

DANC 202 F Dance Composition and Choreography (2)
Prerequisite: DANC 107 F with a grade of " $C$ " or better
One hour lecture and three hours lab per week. This course allows practical application of choreographic techniques with instructor supervision permitting group work during the class session. This class includes theory and practice in the basic elements of dance composition and provides the opportunity for the student to develop and present solo and group compositions. This course may be taken two times for credit and is transferable to the State and University systems; degree credit for A.A. in Dance; A.A. Liberal Arts; satisfies P.E. requirement for general education. (CSU) (UC) (Degree Credit) CSU GE

## DANC 203 F Dance Production (2)

Prerequisite: Any previous dance class; concurrent enrollment in any dance class
Six hours lab per week. This class provides opportunity for creative dance expression. The emphasis of the class is on advanced dance techniques and choreography. Opportunities for public performance are available. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

DANC 204 F Dance Rehearsal and Performance (3)
Prerequisite: Any previous dance class or instructor approval
Nine hours lab per week. This class provides an opportunity for a student to stage his own choreography or to participate as a dancer in original choreography by a student, faculty or guest artist. This course is a practical experience in choreography, performance and directing. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## DANC 205 F Dance Ensemble (2)

One hour lecture and three hours lab per week. A selective dance performing group utilizing advanced resource and movement materials. This class is designed to give the advanced performer an additional opportunity for continued performance and growth in individual dance technique and group repertoire. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

DANC 210 F Multicultural Dance in the U.S. Today (3)
Three hours lecture per week. Social and theatrical dances of the U.S. today will be viewed and examined in terms of cultural influences, historical and social origins, and the functions they fulfill for individual artists, their cultures, and society in general. African American, Asian, Hispanic, European and Native American dances, choreographers, and dancers will be studied. The class work will include readings, discussions, group projects, and analysis of dance performances on video and live theater. Attendance at a selected group of performances is required. Cost of dance concert admission will not exceed \$30. (CSU) (UC) (Degree Credit) CSU GE, IGETC, MULT CULT REQ

## DANC 214 F Dance Repertory (2)

Six hours lab per week. This course provides the opportunity to rehearse and perform works choreographed by faculty and/or artist-in-residence. It is an opportunity to experience professional working conditions and requirements. All phases of the dance concert process from audition to rehearsal to backstage preparation will be covered. This course may be taken four times for credit. (CSU) (UC) (Degree Credit) CSU GE

# Industrial Drafting (DRAF) 

Technology and Engineering Division
Office: Bldg 700
714.992.7595

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

Associate in Science Degree<br>AutoCAD for Industrial Drafting Certificate<br>Industrial Drafting - Level I Certificate<br>Industrial Drafting - Level II Certificate

## Industrial Drafting Courses

## DRAF 070 F Blueprint Reading for the Metal Trades (2)

Two hours lecture per week. This course is designed to prepare Machine Tool, Welding and Metal Fabrication students to interpret drawings related to the metal trades. Studies of dimensioning and drawing symbols will be included. (Degree Credit)

## ENGR 102 F Engineering Drawing (3)

Prerequisite: Three years of college preparatory mathematics or MATH 040 F and MATH 030 F with grades of " $C$ " or better
Advisory: One year of high school mechanical drawing
Three hours lecture and three hours lab per week. Lettering, geometry constructions, orthographic and pictorial drawing, auxiliary views, sectioning, dimensioning, and fasteners will be covered. (CSU) (UC) (Degree Credit)

## DRAF 140 F AutoCAD for Industry (2)

## Advisory: DRAF 171 F or equivalent industry experience

Two hours lecture per week. This is a comprehensive introduction to AutoCAD designed for practicing drafters, engineers, and other manufacturing oriented persons. Topics include hardware requirements and operation, database management, terminology, 2-D AutoCAD drawing commands, plotting, symbol libraries, dimensioning, productivity, and basic 3-D commands. (CSU) (Degree Credit)

## DRAF 141 F Advanced Computer Aided Design for Industry (2)

Advisory: DRAF 140 F or equivalent industry experience
One and one-half hour lecture and one and one-half hour lab per week. This is an advanced course in computer aided design (CAD) using AutoCAD. Students will learn advanced industrial drafting concepts while strengthening their CAD skills. Emphasis will be on drafting and design areas such as fasteners, gears, cams, surface development and intersections, and weldments. A "2-D" approach to AutoCAD will be used. (CSU) (Degree Credit)

## DRAF 142 F Customizing AutoCAD (2)

Advisory: DRAF 140 F or equivalent industry experience
One and one-half hour lecture and two and one-half hours lab per week. This is an advanced level CAD course using AutoCAD software. It is designed for practicing drafters, engineers, and other manufacturing oriented persons who need to increase their AutoCAD productivity and customize the software for their application. Topics will include symbol attributes, system performance and database management, DOS, menu customization, script files, macros, and AutoLisp. (CSU) (Degree Credit)

DRAF 143 F 3-D Applications Using AutoCAD (2)
Advisory: DRAF 140 F or equivalent industry experience
One and one-half hour lecture and two and one-half hours lab per week. This course is designed for the experienced AutoCAD user who needs a working knowledge of AutoCAD's 3-D environment. Topics will include an introduction to 3-D applications, the 3-D coordinate system, display control wire frame modeling, surface modeling, solids modeling, analysis of a solids model (mass properties), model rendering, hardcopy output, and 2-D/3-D transfer. The course will be taught with an emphasis on mechanical drafting applications. (CSU) (Degree Credit)

## DRAF 145 F CAD/CAM (2)

Advisory: DRAF 140 F or equivalent industry experience
Two hours lecture and one hour lab per week. This course will introduce the process of manufacturing using a common database. Students will use popular Computer-Aided-Drafting (CAD) programs to document design ideas and transfer the database for manufacturing purposes using a Computer-Aided-Manufacturing (CAM) program. Students will produce a prototype of their original idea using a CNC machine tool driven by the CAM data. Topics will include the CAD/CAM industry environment, review of basic CAD concepts and design for manufacturing, introduction to CAM, CAD/CAM communication, CNC code generation and editing, set up and operation of machine tools, and inspection techniques. Some previous machining experience would be helpful. (CSU) (Degree Credit)

## DRAF 171 F Fundamentals of Drafting (2)

One hour lecture and three hours lab per week. A beginning drafting course. Proper use of drafting instruments, lettering, geometric construction, pictorial drawings, orthographic projection, dimensions, singleauxiliary views and sections are introduced. Emphasis is placed on line quality and lettering. Some problems drawn from the industrial field. (CSU) (Degree Credit)

DRAF 173 F Geometric Dimensioning and Tolerancing (2)
Advisory: DRAF 070 F or DRAF 171 F or equivalent industry experience
Two hours lecture per week. This is an introductory course in the application and interpretation of geometric dimensioning and tolerancing concepts per the latest revision of the American National Standards Institute (ANSI) Standard \#Y14.5M. This course is designed for persons working in the fields of drafting, machining, manufacturing and quality. (CSU) (Degree Credit)

## DRAF 944 F Parametric Solid Modeling (3)

Two and one-half hours lecture and one and one-half hour lab per week. This course provides the student with instruction in the concept, practice, and development of feature based solid modeling using popular solid modeling software. Students will demonstrate the features of the software by creating parametric solid models. Course may be taken four times for credit. (Degree Credit)

## DRAF 958 F Electronics Drafting Using AutoCAD (2)

Advisory: DRAF 140 F or equivalent industry experience
One hour and one-half hour of lecture and two and one-half hours of lab per week. This course is designed to provide experience in the use and application of microcomputer based computer-aided design (CAD) in the development of block, flow, single line, schematic, logic, and wiring diagrams. The design and development of a printed wiring board along with all necessary documentation is covered as well. Topics include software and hardware configuration, file management, productivity, menu structure, drawing creation, editing, symbol libraries, and hard copy output. (Degree Credit)

# Earth Sciences (ESC) 

Natural Sciences Division<br>Office: Bldg 1000<br>714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

## Astronomy Associate in Arts Degree

## Earth Sciences Courses

## ESC 100 F Physical Geology (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week. This introductory course explores the physical composition of the earth and those processes that modify its surface. Topics include rocks and minerals, plate tectonics, earthquakes, volcanoes, landslides, flooding, groundwater, beach processes, and earth resources. Contemporary environmental changes such as global warming and resource acquisition problems will also be discussed. Concurrent enrollment in Physical Geology 100LF Lab is recommended. Field trips may be taken. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 100LF Physical Geology Lab (1)

Letter Grade or Pass/No Pass option
Corequisite: ESC 100 F
Three hours lab per week. The course supplements ESC 100 F. Lab includes identification of minerals and rocks, interpretation of topographic maps and geologic folios, study of landforms and rock structures and field studies. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ESC 101 F Earth Science Survey (3)

Three hours lecture per week. Lab not required but recommended. This multidisciplinary course explores the fields of geology, oceanography, meteorology, and astronomy. Topics include earthquake and volcanic processes, global current patterns, beach formation, hurricane and tornado development, and star and planetary evolution. Special emphasis is placed on contemporary human-induced environmental changes such as global warming and resource acquisition. Class discussions will also focus on the interaction between science and society. Field trips may be taken. (CSU) (UC Credit Limitation: no credit for ESC 101 F if taken after college level class in astronomy, meteorology, geology or oceanography) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 101 LF Earth Science Survey Lab (1)

Corequisite: ESC 101 F
Three hours lab per week. This lab enhances topics covered in the ESC 101 F Earth Sciences Survey lecture course. Included are exercises in identifying minerals and rocks, reading topographic maps, analyzing earthquakes, interpreting coastal processes, forecasting weather, and recognizing the stars and planets. Field trips may be taken. (CSU) (UC Credit Limitation; no credit if taken after a college level course in astronomy, geology or oceanography.) (Degree Credit) CSU GE, IGETC

ESC 102 F Survey of Natural Disasters (3)
Three hours lecture per week. This course explores those natural disasters that affect human activities. Topics include earthquakes, floods, landslides, volcanoes, hurricanes, tornadoes and asteroid/meteor impacts. The consequences of pollution and population growth will also be explored. Hypothetical and case histories of natural disasters will also be studied. Class discussions will focus on aspects of regional planning, environmental laws and the interaction between science and society. Field trips are optional. (CSU) (UC) (Degree Credit) AA GE

## ESC 103 F Historical Geology (4)

Letter Grade or Pass/No Pass option
Three hours lecture and three hours lab per week. The earth's origin, geological development through time and history of its life are presented using the plate tectonic theory. The importance of environment to evolution and extinction of life forms are stressed. Study and classification of major rock and fossil groups, interpretation of geologic and topographic maps, and application of rock and fossil interpretations to geologic problems are included. Field trips are required. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

ESC 104 F Geology of National Parks and Monuments (3) Letter Grade or Pass/No Pass option
Three hours lecture per week. A description of the broad geologic features of North America with special emphasis on U.S. National Parks and Monuments, will be presented. Photographic slides and rock samples will be used to illustrate the geologic significance of the parks and monuments. Utilizing the plate tectonic theory, a geologic history of North America will be deduced from the descriptive geology. Field trips may be taken to national parks or monuments. (CSU) (Degree Credit) AA GE, CSU GE

## ESC 105 F Introduction to Meteorology (3)

Three hours lecture per week. A non-mathematical introduction to the science of the Earth's atmosphere, covering both global climate and local weather. Physical explanations of phenomena familiar in southern California such as temperature changes, sea breezes, Santa Ana winds, cloud patterns, rain showers and steady rain, thunderstorms, fronts, and air pollution as well as those more common elsewhere such as tornadoes and hurricanes. Optical effects such as mirages, rainbows, coronas, glories, haloes, and auroras. Topics of growing international concern include the greenhouse effect, global warming, and the hole in the ozone layer. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 106 F Geology of the Orange County Area (2)

Two hours of lecture per week. This course examines the physical and historical geology of the Orange County area. The county will be analyzed for faults and folds, rock and fossil occurrences, geologic hazards, and mineral deposits. Pertinent state laws and ordinances relating to geologic concerns will be reviewed. Field trips will be required. (CSU) (Degree Credit)

## ESC 116 F Astronomy (3)

Three hours lecture per week. An introduction to the tools and methods of astronomy and the study of the universe, with particular emphasis on the solar system. High school algebra and plane geometry or their equivalents are highly desirable. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 116LF Astronomy Lab (2)

## Corequisite: ESC 116 F

Four hours lab or field work per week. This course introduces the student to astronomical viewing and measurement as well as analysis of astronomical data. Students will do lab experiments to understand principles of astronomy and data analysis. They will use telescopes to make observations and gather data (or use computer images) and perform exercises relating to the moon, planets, stars, and galaxies. A field trip for dark sky observation may be arranged. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ESC 120 F Geology of California (3)

Three hours of lecture per week or equivalent. This course examines the physical and historical geology of California. Each of California's natural provinces will be analyzed for tectonic structures, rock and fossil occurrences, geologic hazards, and mineral deposits. Pertinent state laws and ordinances relating to geologic concerns will be reviewed. Field trips may be taken. (CSU) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 130 F Introduction to Oceanography (3)

Three hours of lecture per week. The lectures present a survey of the geological, physical, chemical, and biological principles and processes of oceanography. This course examines how these processes interact to form a variety of habitats within the marine ecosystem. An overview is provided of the physical properties of these habitats, along with the distribution and characteristics of organisms found within them. The interactions of humans with the marine environment is presented, as is an introduction to oceanographic tools and their uses. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 130HF Honors Introduction to Oceanography (3)

Three hours of lecture per week. This course presents a survey of the physical, chemical, geological, biological and ecological principles and processes of ocean and earth systems science. We examine how these processes interact to create a variety of interdependent ocean habitats from surface waters to the abyss in estuarine, coastal and oceanic environments. The role of technology and its application to studying the ocean is woven throughout. As an Honors course, students will develop an understanding of the interaction of humans with ocean processes and the critical scientific, environmental, social and political issues facing our oceans today. Students are expected to critically analyze scientific and journalistic information and engage in written and oral debate to reach a deeper understanding of these issues. (CSU/UC) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 130LF Introduction to Oceanography <br> Field Experience (1) <br> Corequisite: ESC 130 F

Four hours field study per week for eight weeks or the equivalent. Field studies to correspond to material covered in ESC 130 F Introduction to Oceanography. Each field experience will be preceded by an orientation lecture/discussion period. May include field work from boats. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ESC 133 F Navigation and Seamanship (3)

Two hours lecture and three hours lab per week. This course is designed to present the basics of navigation theory and the fundamentals of small boat handling and safety. Lab and field exercises are designed to give practical experience in navigation techniques and small boat seamanship. (CSU) (Degree Credit)

ESC 180 F Modern Techniques in Sampling (4)
Three hours lecture and three hours lab per week. An introduction to modern survey and sampling methods in terrestrial and ocean sciences, including geological, physical, chemical and biological techniques. Special emphasis will be placed on interdisciplinary and synoptic measurements, including data acquired from earth-orbiting satellites, weather stations, ocean buoys and seismic networks. Lab experience will include sampling design, field studies, data acquisition and data analysis, covering a range of environments and data types. Students will be responsible for preparing oral and written reports of their work. Basic computer skills are recommended. (CSU) (Degree Credit)

## ESC 190 F Environmental Geology (3)

Letter Grade or Pass/No Pass option.
Three hours lecture per week. This course explores those geologic processes that affect human activities. These worldwide processes are occurring today. Topics include the geologic hazards, such as earthquakes, floods, landslides, and volcanoes; the occurrences and limitations of natural resources; and the consequences of pollution and waste disposal on the earth. Hypothetical and case histories of natural disasters will be studied. Class discussions will also focus on geologic aspects of regional planning, environmental laws, and the interaction between science and society. Field trips are optional. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ESC 196 F Regional Field Studies in Geology (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in selected areas throughout the Southwestern United States. During a given semester, multiple sections may be offered to different study areas or for different topics. Lectures will examine the geologic importance of the area to be visited and how to recognize key geologic features in the field. Study areas include, but are not limited to, Mojave Desert, the Sierra Nevada, and coastal areas. Areas outside of California (i.e., Arizona, New Mexico) may also be selected. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ESC 198AF Geology of California Coastal Areas (2)

Two hours of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in selected areas along California's coastline. Lectures will examine the geologic importance of coastal areas and how to recognize key geologic features in the field. Particular attention will be focused on identifying geologic hazards and understanding the natural resource potential. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ESC 198BF Geology of the Anza-Borrego Desert State Park Area (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in the Anza-Borrego Desert State Park area. Lectures will examine the geologic importance of the area and how to recognize key geologic features in the field. Particular attention will be focused on identifying geologic hazards and understanding the natural resource potential. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ESC 198CF Geology of the Mojave Desert Area (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in the Mojave Desert area. Lectures will examine the geologic importance of the area and how to recognize key geologic features in the field. Particular attention will be focused on identifying geologic hazards and understanding the natural resource potential. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ESC 198DF Geology of the Owens Valley/Mammoth Lakes Area (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in the Owens Valley - Mammoth Lakes area. Lectures will examine the geologic importance of the area and how to recognize key geologic features in the field. Particular attention will be focused on identifying geologic hazards and understanding the natural resource potential. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ESC 198EF Geology of the Southern California Mountain Areas (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in the Transverse Ranges area. Lectures will examine the geologic importance of the area and how to recognize key geologic features in the field. Particular attention will be focused on identifying geologic hazards and understanding the natural resource potential. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ESC 198FF Geology of the Death Valley National Park Area (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in the Death Valley National Park area. Lectures will examine the geologic importance of the area and how to recognize key geologic features in the field. Particular attention will be focused on understanding the natural resource potential of the region. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ESC 198GF Geology of the Joshua Tree National Park Area (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of geologic processes and features in the Joshua Tree National Park area. Lectures will examine the geologic importance of the area and how to recognize key geologic hazards and understanding the natural resource potential. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

ESC 198IF Geology of Colorado Plateau Areas (2)
Two hours of lecture per week. This course involves lecture and field study of geologic features and processes in selected areas of the Colorado Plateau. Lectures will explore the geologic significance of these areas and how to recognize key geologic features in the field. Particular attention will be focused on identifying geologic hazards and natural resources potential. Areas of study may include Grand Canyon, Zion, Bryce Canyon, Capital Reef, Arches and Canyonlands National Parks. Students will be trained in the use of various scientific tools for conducting geologic field studies. Field trips are required. (CSU) (Degree Credit)

## Economics (ECON)

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

## Associate in Arts Degree

## Economics Courses

## ECON 101 F Principles of Economics - Micro (3)

Three hours lecture per week. Microeconomic analysis. This course presents the basic structure of the economic system of the United States and emphasizes the behavior of the firm within this structure. Special attention is given to the allocation of products and resources through the price mechanism. Topics treated include comparative economic systems, supply and demand, product and resource pricing, the market models, and general equilibrium. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

ECON 101HF Honors Principles of Economics - Micro (3)
Three hours lecture per week. Microeconomics analysis. This course is enhanced for honors students, presenting the basic structure of the economic system of the United States and emphasizing the behavior of the firm within this structure. Topics treated include comparative economic systems, supply and demand, product and resource pricing, the market models, and general equilibrium. More attention will be given to the quantitative methods used by economists. Students will be expected to give frequent oral reports, participate in group projects, and travel off-campus for special programs. Internet access will be arranged for student groups to participate in a competitive stock market game. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## ECON 102 F Principles of Economics - Macro (3)

Prerequisite: ECON 101 F
Three hours lecture per week. Macroeconomic analysis. This course is concerned with the economic aggregates and analyzes the overall performance of the United States economy, with special emphasis on the role of government. Topics treated include national income, employment theory, business cycles, fiscal and monetary policy, economic growth, and international economics. Some of the problems of specific sectors of the economy are examined. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## ECON 102HF Honors Principles of Economics - Macro (

 Prerequisite: ECON 101 F or ECON 101HFThree hours lecture per week. Macroeconomics analysis. This course is enhanced for honors students. It is concerned with the economic aggregates and analyzes the overall performance of the United States economy, with special emphasis on the role of government. Topics treated include national income, employment theory, business cycles, fiscal and monetary policy, equilibrium growth, and international economics. Some of the problems of specific sectors of the economy are examined. Students will be expected to give oral reports, participate in group projects, and perform independent research outside of class. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## Education

(see Child Development and Educational Studies)

## Engineering (ENGR)

Technology and Engineering Division<br>Office: Bldg 700<br>714.992.7051<br>Dean: Scott McKenzie<br>Website: techneng.fullcoll.edu<br>Associate in Science Degree<br>Engineering Courses

## ENGR 101 AF Surveying I (4)

Corequisite: TECH $081 F$ and DRAF 171 F or one year high school drafting with a grade of " $B$ " or better
Three hours lecture and three hours lab per week. Principles and practices of measuring distances, directions and elevation. Study of errors, computation of areas, volumes and coordinates. Use and care of instruments and equipment. (CSU) (Degree Credit)

## ENGR 101BF Surveying II (4)

Prerequisite: ENGR 101AF with a grade of " $C$ " or better
Three hours lecture and three hours lab per week. Application of surveying techniques to engineering and construction problems. Public and private land, route and topographic surveys. Introduction to photogrametry, triangulation, level adjustments, and applications of astronomical observations. (CSU) (Degree Credit)

## ENGR 102 F Engineering Drawing (3)

Prerequisite: Three years of college preparatory mathematics or MATH 040 F and MATH 030 F with grades of " C " or better
Advisory: One year of high school mechanical drawing
Three hours lecture and three hours lab per week. Lettering, geometry constructions, orthographic and pictorial drawing, auxiliary views, sectioning, dimensioning, and fasteners will be covered. (CSU) (UC) (Degree Credit)

## ENGR 105 F Engineering CAD (4)

Three hours lecture and three hours lab per week. This is an introductory course which utilizes the CAD system for engineering applications. The course incorporates elementary principles associated with the various menu and command structures in computer-assisted drafting to develop solutions to 2-D and 3-D design problems. Topics included are file management, layering, orthographic projection, dimensioning, line types and axonometric projection. (CSU) (UC) (Degree Credit)

## ENGR 110 F Introduction to Engineering (3)

Three hours lecture per week. This course is an introduction to engineering as a profession and its associated career responsibilities and opportunities. The course includes a selection of computational and mathematical methods and tools to be found useful in problem solving. Dimensional analysis, graphical techniques, and design theory in engineering analysis is also studied. The course includes the application of engineering and scientific problem methods to introductory mechanics and electricity. This course also meets requirements for credit in Engineering. (CSU) (Degree Credit)

## ENGR 201 F Statics (3)

Prerequisite: MATH 150BF and PHYS 221 F with a grade of "C" or better
Three hours lecture per week. This course applies equilibrium conditions of force and moments to engineering problems. Algebraic and graphical methods are use. Topics include equilibrium of particles and rigid bodies, trusses, beams, levers, pulleys, centroids, friction, fluids and work principles. (CSU) (UC) (Degree Credit)

## ENGR 203 F Electric Circuits (4)

Prerequisite: PHYS 222 F, MATH 150BF
Corequisite: ENGR 203LF
Four hours lecture per week. Introduction to the analysis of electric circuits. Analysis techniques include nodal analysis, loop analysis, superposition method, Thevenin's Theorem, Norton's Theorem and source transformation. RLC and op-amp networks and are analyzed under DC, AC-steady state and transient conditions using multiple methods including bode plots and Laplace transforms. (CSU) (UC) (Degree Credit)

## ENGR 203LF Electric Circuits Lab (1)

Prerequisite: PHYS 222 F and MATH 150BF
Corequisite: ENGR 203 F
Three hours lab per week. Basic electrical measurement techniques and experimental investigation of simple circuits. Computer simulations of transient circuits. (CSU) (UC) (Degree Credit)

## English (ENGL)

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## Associate in Arts Degree

## English Courses

## ENGL 039 F Basic Writing (4)

Pass/No Pass only
Advisory: Enrollment in READ 036 F
Four lecture hours per week. This course is designed for native speakers of English who require instruction in basic writing including such topics as: sentence and paragraph writing, literal comprehension, vocabulary development and study techniques.

## ENGL 059 F Developmental Writing (4)

Pass/No Pass only
Prerequisite: ENGL 039 F with a grade of "Pass" or recommended score
Advisory: READ 056 F
Four hours lecture per week. This course is designed for native speakers of English who need to build basic English skills in writing, reading and thinking. It provides instruction in writing effective sentences, organization of ideas into paragraphs and essays, fundamentals of English, reading short essays, vocabulary building, basic critical thinking, and study skills.

## ENGL 060 F Preparation for College Writing (4)

Pass/No Pass only
Prerequisite: ENGL 059 F with a grade of "Pass" or recommended score

## Advisory: READ 096 F

Four hours lecture per week. This course is designed to meet the needs of students who are developing the writing and editing skills necessary for college writing. Students will review English fundamentals, read and analyze professional essays, and write essays with an emphasis on exposition and critical thinking.

ENGL 100 F College Writing (3)
Prerequisite: ENGL 060 F with a grade of "Pass" or ESL 186 F with a grade of " $C$ " or better
Advisory: Enrollment in READ 142 F
Four hours lecture per week. This is a college level course in composition designed to develop the reading, critical thinking, and writing strategies necessary for academic success. The emphasis is on reading and writing expository essays. The course includes research and documentation skills. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 100HF Honors College Writing (3)

Prerequisite: ENGL 060 F with a grade of "Pass" or ESL 186 F with a grade of " $C$ " or better
Advisory: Enrollment in READ 142 F
Four hours lecture per week. This is a college level course in composition enhanced for honors students designed to develop critical thinking, and writing strategies, including research and documentation skills, necessary for academic success. The emphasis is on reading and writing expository essays. The course will be conducted as a seminar, and it will require a significant independent research project that uses correct documentation skills. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

ENGL 102 F Introduction to Literature (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three lecture hours per week. This course will introduce a variety of literary genres such as fiction, poetry, drama and film. Students will read, analyze, and write about literature. Different critical approaches to literature will also be included. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

ENGL 102HF Honors Introduction to Literature (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture per week. A continuation of ENGL 100 F, this course uses literary works as content for reading and writing with emphasis on analytical and critical approaches to drama, poetry and prose fiction. As an Honors section, this class will employ enhanced teaching methods such as a seminar approach, more researched based writing assignments, and assignments calling for a higher level of critical thinking. The overall content and amount of work required in ENGL 102HF will be the same as non-honors ENGL 102F. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 103 F Critical Reasoning and Writing (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture per week. This course is designed to develop critical thinking, reading, and writing skills beyond the level achieved in ENGL 100 F . The course will focus on the development of logical reasoning and analytical and argumentative writing skills. (CSU ) (UC) (Degree Credit) AA GE, CSU GE, IGETC

ENGL 103HF Honors Critical Reasoning and Writing (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture per week. This course is designed to develop critical thinking, reading, and writing skills, beyond the level achieved in ENGL 100 F . The course will focus on the development of logical reasoning and analytical and argumentative writing skills. As an Honors section, this class will offer an enhanced approach to critical thinking, calling on students to take a more active role in the learning process. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 104 F Critical Thinking and Writing about Literature (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture per week. This course will develop critical thinking, reading, and writing skills as they apply to the analysis of literature and literary criticism from diverse cultural sources and perspectives. There will be an emphasis on the techniques and principles of effective written argument as they apply to literature. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 105 F Introduction to Creative Writing (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better

## Advisory: ENGL 102 F

Three hours lecture per week. Introduction to Creative Writing includes writing original fiction, drama, and poetry; study and application of forms, techniques, and literary elements of creative writing; and workshop experience which provides an opportunity for analyzing and critiquing student writing. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## ENGL 201 F Intermediate College Writing (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture per week. This course is designed to develop academic writing and critical thinking skills beyond the level achieved in ENGL 100 F . The course will stress analysis and evaluation of sources, integration of a variety of rhetorical strategies, and research and documentation methods necessary for successful academic writing in essays, reports, critiques, exams, and research papers. Assignments are designed to address cross-curricular needs of students from a variety of majors. (CSU) (UC) (Degree credit) AA GE, CSU GE, IGETC

## ENGL 203 F Introduction to Dramatic Literature (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF, both with a grade of " $C$ " or better
Three hours lecture per week. This course focuses on reading, critical analysis, discussion and evaluation of selected plays from classical tragedy and comedy to contemporary drama. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 204 F Introduction to Poetry (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F with a grade of " $C$ " or better
Three hours lecture per week. This course covers the reading and study of poems from ancient to modern times in English and in translation. Poets represented may include Blake, Dickinson, Donne, Eliot, Frost, Keats, Neruda, Paz, Shakespeare, Whitman, Yeats and Levertov. The focus of the course is on the analysis of poetic techniques and the interpretation of universal themes. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

ENGL 205 F The Film: From the Beginning to 1950 (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF, both with a grade of "C" or better
Three hours lecture per week. This course is designed to view, analyze and discuss films. A study of representative film masterpieces will reveal the evolution of moving pictures from their inception to the period just after World War II. The ideas, values, concerns, and views reflected in the films are emphasized, and the artistic techniques employed are considered. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 206 F The Film: From 1950 to the Present (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: A grade of "C" or better in ENGL 102 F
Three hours lecture per week. This course is designed to view, analyze and discuss films. A study of representative film masterpieces will reveal the evolution of moving pictures from 1950 to the present. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

ENGL 207 F The Short Story (3)
Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF, both with a grade of "C" or better
Three lecture hours per week. The course involves the reading and discussion of selected short stories emphasizing analysis, interpretation, and evaluation. The course will focus on the short story as a genre. There will be an emphasis on the cultural and historical contexts of the texts covered and on the variety of writers and styles. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 208 F Introduction to Film Studies (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture and one hour lab per week. This course is an introduction to the discipline of film analysis from aesthetic, cultural, and historical perspectives. Films from a variety of countries and historical periods may be viewed and analyzed. Analysis, interpretation, and writing techniques will be emphasized. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 209 F Intermediate Creative Writing (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 105 F with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 200 F
Three hours lecture per week. Intermediate Creative Writing continues the study of writing original fiction, drama, and poetry and the study and application of forms, techniques, and literary elements of creative writing. Workshops and peer critiquing are emphasized. (CSU) (UC) (Degree Credit)

## ENGL 210 F Introduction to Language Structure and Use (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture per week. This course offers students an introduction to the nature and structure of human language and use, covering fundamental elements of phonology, phonics, morphology, etymology and pragmatics. This course will explore first and second language acquisition and development. (CSU) (Degree Credit)

ENGL 211 F English Literature to 1800 (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours of lecture per week. A survey of British literature from the Middle Ages to 1800, this course emphasizes literary trends and historical backgrounds, as well as the development of English. The course includes readings by such writers as the Pearl Poet, Chaucer, Shakespeare, Lanyer, Donne, Milton, Behn, Swift, and Pope. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 212 F English Literature Since 1800 (3)

Prerequisite: ENGL 100 F or ENGL 100 HF , both with a grade of "C" or better

## Advisory: ENGL 102 F or ENGL 102HF

Three hours lecture per week. This course is a survey of literature written in English from 1800 to the present and will emphasize literary trends and historical backgrounds. Students will read and discuss fiction, poetry, drama, and prose from the Romantic, Victorian, Modern, and Postmodern eras in Great Britain and other countries of the Empire and Commonwealth. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

ENGL 214 F Contemporary Literature (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours lecture per week. The course is a study of representative poetry, drama, and fiction, concentrating on - but not limited to recognized world literary figures. The focus of the course is on each text's social and historical context; consideration is also given to the artistic techniques employed in each work. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 218 F California Writers (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F with a grade of "C" or better
Advisory: ENGL 102 F , with a grade of " $C$ " or better
Three hours lecture per week. English 218 F is a survey of the historical and cultural development of the literature of California. This course emphasizes the literary, social, economic, multicultural and environmental contexts of the California writers studied. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

ENGL 221 F American Literature to the Civil War (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours lecture per week. A survey of representative works by American writers from the Colonial period through the Civil War, this course emphasizes historic backgrounds of American fiction, poetry, and prose. The course includes major writers such as Hawthorne, Poe, Melville, Emerson, Douglass, Thoreau, Dickinson, and Whitman. (CSU) (US) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 222 F American Literature from Civil War to the Present (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours lecture per week. A survey of representative works by American writers from the Colonial period through the Civil War, this course emphasizes historic backgrounds of American fiction, poetry, and prose. The course includes major writers such as Hawthorne, Poe, Melville, Emerson, Douglass, Thoreau, Dickinson, and Whitman. (CSU) (US) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 224 F World Literature Through the Early Modern

 Period I (3)Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours lecture per week. This course is a study of the great masterpieces of world literature, and the cultures and authors that produced them. The course will trace common themes and changing ideas from classical antiquity through the Early Modern Period in the works of writers such as Homer, Confucius, Virgil, Li Po, Dante, and Chaucer and works such as the Tale of Genji, The Ramayana, and A Thousand and One Nights.(CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

ENGL 225 F World Literature Since the Early Modern Period (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three lecture hours per week. This course is a study of the masterpieces of world literature including a consideration of the authors as well as the cultural context of the works. The course will trace common themes and changing ideas since the Early Modern Period to the present in the works of writers such as Voltaire, Goethe, Akhmatova, Flaubert, Kafka, Ibsen, Dostoevsky, Mahfouz, Borges, and Soyinka. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

ENGL 234 F Introduction to Shakespeare (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours lecture per week. This course introduces students to William Shakespeare's tragedies, comedies, histories and romances, as well as poetry. Students will develop an understanding of Shakespeare's plays, their original context and their relevance for today. This honors seminar course emphasizes discussion and exchange based on students' presentations and independent research. (CSU) (UC) (Degree credit) AA GE, CSU GE, IGETC

ENGL 234HF Honors Introduction to Shakespeare (3)
Prerequisite: ENGL 100 F or ENGL 100 HF , both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF, both with a grade of "C" or better
Three hours lecture per week. This honors course is designed to introduce students to ten to twelve of the tragedies, comedies and histories of William Shakespeare. Elizabethan context, genre, and critical analysis with regard to theme, poetic devices, plot, character development, and irony will be emphasized. This honors seminar course emphasizes discussion and exchange based on students' presentations and independent research. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 239 F Survey of Children's Literature (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three lecture hours per week. This course traces the historical and cultural development of children's literature throughout the world, from its multiple origins in the oral tradition to its contemporary emphasis on written excellence and pictorial artistry. The course focuses on comparative and critical approaches to the multicultural elements in nursery rhymes, poetry, fables, folk tales, myth, sacred literature, picture books, juvenile literature, and works of non-fiction, with emphasis on contemporary literature and the emergence of ethnic writers in children's literature. This course fulfills the multicultural education requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## ENGL 243 F Folklore and Mythology (3)

Letter Grade or Pass/No Pass option
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F with a grade of " $C$ " or better
Three hours lecture per week. This course is an introductory study of the folklore and mythology of representative cultures of the world through literature including such cultures as Greek, Norse, Babylonian, American Indian, European, Mexican, Hindu and Chinese. The course will include a comparative study of mythic elements and patterns with their modern parallels in both Eastern and Western civilizations. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## ENGL 243HF Honors Folklore and Mythology (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF, both with a grade of "C" or better
Three hours lecture per week. This course is an introductory study of the folklore and mythology of representative cultures of the world through literature including such cultures as Greek, Norse, Babylonian, American Indian, European, Mexican, Hindu, and Chinese. The course will include a comparative study of mythic elements and patterns with their modern parallels in both Eastern and Western civilizations. This honors section is conducted as a seminar and relies on independent student research done outside of class. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, IGETC, MULT CULT REQ

## ENGL 245 F The Bible as Literature (3)

Letter Grade or Pass/No Pass option.
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F with a grade of "C" or better
Three hours lecture per week. Students will study the English Bible as literature, its literary forms and techniques. Readings and discussions emphasize analysis of such forms as short story, poetry, letters, dramatic and narrative prose, wisdom and didactic literature. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 246 F The Novel (3)

Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours lecture per week. This course is a study of the novel as an art form, concentrating on representative novels illustrating the richness of the form. Emphasis will be placed on developing the students' analytical skills. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 247 F Voices of America: Studies in Multicultural

 Literature (3)Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Three hours lecture per week. Three hours lecture per week. The course is a study of multicultural literature, by both immigrant, and native American writers, which explores varied responses - ethnic, gender, and regional - in the cultural context of a diverse country. Students will critically examine a wide variety of literature that includes such genres as fiction, plays, essays, journals, autobiography, letters, tales, chants and other less traditional literary forms. The course is designed to enrich students' lives by exploring the multicultural literary resources of America. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, MULT CULT REQ

ENGL 248 F Science Fiction (3)
Prerequisite: ENGL 100 F or ENGL 100 HF , both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
This course is a survey of science fiction and speculative fiction. This course emphasizes the literary, social, economic, cultural and environmental contexts of representative works and traces the development of the genre from early scientific romances and speculative works through current trends. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 249 F Survey of Chicano/a Literature (3)

Letter Grade or Pass/No Pass option.
Prerequisite: ENGL 100 F or ENGL 100 HF , both with a grade of "C" or better
Advisory: ENGL 102 F with a grade of " $C$ " or better
Three hours lecture per week. This course offers students a survey of Chicano/a literature from its beginnings in the nineteenth century to the present day. It emphasizes the literary, historical, social, political and cultural context of Chicano/a fiction, poetry, theater and prose. Students can expect to read major literary classics as well as the works of previously less recognized writers. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 250 F Survey of African American Literature (3)

Letter Grade or Pass/No Pass option.
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F with a grade of "C" or better
Three hours lecture per week. This course is a survey of literature by African American writers. It emphasizes the literary, social, economic and environmental context of the works studied and traces the development of African American writing from spirituals and other oral literatures through writing by contemporary African Americans writers in a variety of genres. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 251 F Survey of Native American Literature (3)

Letter Grade or Pass/No Pass option.
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F with a grade of "C" or better
Three hours lecture per week. A survey of Native American literary tradition from its beginnings as an oral tradition to contemporary works by representative authors, this course emphasizes the historical, cultural and literary context of work written by Native American authors in a variety of genres including poetry, fiction, autobiography, told-to autobiographies, oral tradition, folklore and mythology, speeches, and mixed genres. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENGL 252 F Women's Literature (3)

Prerequisite: ENGL 100 F or ENGL 100 HF , both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF
Three hours lecture per week. This course is a survey of literatures by women and examines traditional and non-traditional forms of women's writing from a variety of critical perspectives. The course focuses on analysis of literary texts both in terms of their aesthetic qualities and cultural contexts. (CSU) (UC) (Degree credit) AA GE, CSU GE, IGETC

## ENGL 253 F Survey of Asian American Literature (3)

Letter Grade or Pass/No Pass option.
This course surveys the development of Asian-American literature from the mid-19th century to the contemporary period in the United States. Drawing upon such literary genres as fiction, poetry, drama, memoir, and film, this course examines the literary, cultural, historical, and political contexts of Asian-American writers. (CSU/UC) (Degree Credit) AA GE, CSU GE, IGETC

ENGL 254 F Intermediate Creative Writing: Poetry (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF, both with a grade of "C" or better
This course continues the development of creative writing skills with an emphasis on poetry. Students will write original poetry; study forms, techniques, and literary elements of poetry including classical poetic forms and the free-verse tradition; study non-fiction essays related to the writing of poetry and poetics; and utilize creative writing workshops which provide an opportunity for analyzing and critiquing student writing. (CSU) (UC)

ENGL 255 F Intermediate Creative Writing: Fiction (3)
Letter Grade or Pass/No Pass option.
Prerequisite: ENGL 105 F with a grade of "C" or better
Advisory: ENGL 102 F or ENGL 102HF, both with a grade of "C" or better
This course includes writing original fiction; study and application of forms, techniques and literary elements of fiction including classic short story and novel forms; study of modern, less traditional forms such as creative non-fiction; study of essays related to the writing of fiction; and workshop experience which provides an opportunity for analyzing and critiquing student writing. (CSU/UC) (Degree Credit) AA GE

ENGL 280 F Language Arts Tutoring Practicum (3)
Prerequisite: ENGL 100 F or ENGL 100HF, both with a grade of "C" or better, and recommendation from an English instructor
Corequisite: ENGL 103 F or ENGL 103 HF or ENGL 104 F or ENGL 201 F
Two hours lecture and three hours lab per week. This course provides training for students to acquire specific skills and techniques for tutoring in writing, and provides strong recommendation for future employment in Fullerton College's Writing Center. Supervised, "hands-on" tutoring lab hours are part of instruction. (CSU) (Degree Credit)

ENGL 299 F Humanities Independent Study (1)
One hour lecture or scheduled conference per week. For able students who wish to increase their knowledge of literature or language through individual study or research. Elective credit in the humanities area. Course may be taken three times for credit. (CSU) (UC review required) (Degree Credit)

# English-as-a-Second-Language (ESL) 

Humanities Division<br>Office: Bldg 500, Room 522-O<br>714.992.7036<br>Dean: Dan Willoughby<br>Website: www.humanities.fullcoll.edu

## ESL Courses

## ESL 025 F Basic English Grammar (3)

## Pass/No Pass only

Three hours lecture per week. This course is designed to increase students' knowledge and usage of verb tenses, sentence structure, and other basic grammatical topics. It will develop grammatical accuracy in listening, speaking, reading and writing.

## ESL 029 F Idiomatic Expressions for Students of ESL (2)

 Pass/No Pass onlyTwo lecture hours per week. This course provides instruction in common American English idioms, phrasal verbs, slang and taboo terminology, proverbs, and other fixed expressions. Additional topics include context clues, dictionary use, relaxed speech, and cultural aspects of idiomatic expressions. The course is designed for high beginning to intermediate students of English as a second language (ESL).

## ESL 035 F Intermediate English Grammar (3)

Pass/No Pass only
Three hours lecture per week. This course is designed to increase students' knowledge and usage of complex verb tenses and sentence structure. It will also develop grammatical competency in reading and writing.

## ESL 036 F Basic Listening and Speaking (4)

## Pass/No Pass only

Four hours lecture per week. This course is designed to improve beginning students' ability to speak and understand English in simple everyday and academic situations. It will provide practice in basic oral communication functions as well as beginning academic listening and speaking skills.

## ESL 038 F Fundamentals of American English Pronunciation (2)

Pass/No Pass only
Two hours lecture per week. This course is designed to develop basic pronunciation, to establish better oral control of language, and to build confidence in simple oral expression.

## ESL 039 F Vocabulary Expansion Techniques for Students of ESL (3)

Pass/No Pass only
Two lecture hours per week. This course will provide instruction in vocabulary expansion principles and techniques for high beginning to intermediate students of English as a second language (ESL). Topics include context clues, word parts, mnemonic devices, word relationships, and dictionary use. Also emphasized are grammatical, collocational, and pragmatic restrictions on vocabulary.

## ESL 045 F Advanced English Grammar (3)

Pass/No Pass only
Three hours lecture per week. This course is designed to increase students' knowledge and usage of advanced English grammar, to improve grammatical accuracy in writing and to develop strong editing skills.

## ESL 046 F Intermediate Conversation (2)

## Pass/No Pass only

Two hours lecture per week. This course is designed to improve students' ability to comprehend and communicate in English on a variety of everyday topics. Students will develop and practice techniques for greater composure and confidence in oral expression.

## ESL 047 F Academic Preparation for American English Students $(2,2)$

## Pass/No Pass only

Advisory: ESL skills evaluation
Two hours lecture per week. The course is designed to orient second language students to college life. The course includes information about academic vocabulary, academic textbooks, and college instructor expectations; instruction in exam taking and study skills; and explanation of cultural differences in relation to the college setting. Course may be taken twice for credit.

## ESL 048 F Intermediate American English

## Pronunciation (2)

Pass/No Pass only
Two hours lecture per week. This course is designed to develop intermediate pronunciation skills, to structure more style in oral language, and to build confidence in basic oral expression.

## ESL 049 F Academic Vocabulary for Advanced Students of ESL (3)

Pass/No Pass only
Three lecture hours per week. This course provides instruction in academic vocabulary for advanced students of English as a second language (ESL). Emphasis is on the acquisition and consolidation of an expanded university-level vocabulary. Also presented is academic vocabulary learning principles and techniques including context clues, reference works, word parts, derivational forms, as well as grammatical and collocational restrictions on lexical items.

## ESL 050 F Occupational English (2)

Pass/No Pass only
Corequisite: Occupational programs as designated in the Schedule of Classes
Two hours lecture and one hour lab per week. This is an intensive course in English as a second language for students in vocational programs. The course emphasizes the development of basic listening, speaking, reading, and writing skills for successful completion of required classes in vocational certificate programs. The class will focus on aspects of employability and workplace culture.

## ESL 056 F Advanced Conversation: Academic Topics (2)

Pass/No Pass only
Two hours lecture per week. This course is designed to improve advanced students' comprehension and oral communication in English on a broad range of academic subjects.

## ESL 058 F Advanced American English Pronunciation:

## Foreign Accent Reduction (2)

Pass/No Pass only
Two hours lecture per week. This course is designed to refine pronunciation, to reduce foreign accent, and to build confidence in complex oral expression.

## ESL 080 F Fundamental Listening, Speaking, Reading and Writing for Students of American English (5)

Pass/No Pass only
Prerequisite: ESL skills evaluation
Five hours lecture and one hour arranged lab per week. Designed for high-beginning students of English, this course provides practice in all four language skills - listening, speaking, reading, writing - with emphasis on listening comprehension, oral communication, basic reading skills, and basic grammar and writing skills.

## ESL 081 F Low Intermediate English for Non-Native Speakers of English (5)

Pass/No Pass only
Prerequisite: ESL skills evaluation or ESL 080 F with a grade of "Pass"
Five hours lecture and one hour arranged lab per week. This is a low intermediate integrated skills course designed to improve the reading, grammar, writing, listening comprehension, and speaking skills of nonnative speakers with a basic command of English.

## ESL 082 F Intermediate English for Non-Native Speakers of English (5) <br> Pass/No Pass only <br> Prerequisite: ESL skills evaluation or ESL 081 F with a grade of "Pass" <br> Five hours lecture and one hour arranged lab per week. Designed for intermediate students of English, this course provides practice in all four language skills - listening, speaking, reading, and writing - with special emphasis on reading and writing to develop critical thinking, reading comprehension, and writing skills at the paragraph level.

## ESL 083 F High Intermediate Reading and Writing for Students of American English (5)

Letter Grade or Pass/No Pass option
Prerequisite: ESL skills evaluation or ESL 082 F with a grade of "Pass"
Five hours lecture and one hour arranged lab per week. This course is for high-intermediate students of English. It provides instruction in critical reading and expository paragraph development. Application of grammar concepts, sentence variety, and vocabulary development are emphasized. The course offers continuing practice in listening and speaking skills.

## ESL 184 F Low Advanced English for Non-Native Speakers of English (5)

Letter Grade or Pass/No Pass option
Prerequisite: ESL skills evaluation or ESL 083 F with a grade of " $C$ " or better
Five hours lecture plus one hour arranged lab per week. This course is an advanced course designed to improve the reading, writing and grammar skills of non-native speakers with an advanced command of English. (CSU) (UC Credit Limitation) (Degree Credit)

## ESL 185 F Advanced Reading and Writing for Students of American English (5)

Letter Grade or Pass/No Pass option
Prerequisite: ESL skills evaluation or ESL 184 F with a grade of " $C$ " or better
Five hours lecture plus one hour arranged lab per week. Designed for advanced students of English, this course primarily emphasizes critical reading and expository essay writing; the course promotes continued practice in listening comprehension and oral communication. (CSU) (UC Credit Limitation) (Degree Credit)

## ESL 186 F Composition for Students of American English (5)

Letter Grade or Pass/No Pass option
Prerequisite: ESL skills evaluation or ESL 185 F with a grade of "C" or better
Five hours lecture per week. Designed to prepare advanced students for college level writing, this course provides a review of English fundamentals and practice in reading, critical thinking, expository essay writing, and basic research skills. The course also offers continued practice in special problems common to second language learners and promotes continued practice in listening comprehension and oral communication. (CSU) (UC Credit Limitation) (Degree Credit)

# Environmental Sciences (ENVS) 

## Natural Sciences Division

Office: Bldg 1000
714.992.7043

Dean: Bruce Cordell
Website: http://natsci.fullcoll.edu/

## Associate in Arts Degree

## Environmental Science Courses

## ENVS 105 F Environmental Biology (3)

Environmental Biology introduces the student to the basic principles of organismal biology. These principles then are used to assess today's complex environmental issues. The ultimate concerns in environmental controversies inevitably involve biological processes on the ecological, organismal and cellular level. This course explores how human-caused environmental changes disrupt the normal conduct of the planet's biological systems. Core biological principles include: the philosophy of science, photosynthesis, aerobic respiration, genetic resources, protein synthesis, taxonomy of life, evolutionary principles, ecological structures, wildlife management, and human health. The core topics will be treated in a framework of the following environmental issues: loss of species, human population growth, air pollution, water pollution, energy use, resource consumption, and hazardous chemicals. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENVS 105LF Environmental Biology Lab (1) <br> Corequisite: ENVS 105 F

One hour of lecture and three hours of lab or field study per week for eight weeks or the equivalent. Using experimental and investigative approaches, this course is designed to teach students biological principles and scientific methods of inquiry. Topics will include: development and critique of experimental designs using the scientific method of inquiry; an experimental study of the effects of acid rain on plants; basic concepts in photosynthesis, nutrient cycling, cell division, primary productivity, energy flow, competition, and reproductive strategies in ecosystems; field discovery and analysis of ecological structures in estuarine and arid ecosystems; plant anatomy and functional morphology; plant and animal physiological adaptations; behavioral adaptations; field identification of native and introduced plants and animals; transect distribution analyses; and impact of water distribution systems on wilderness ecosystems. Mathematical tools are accessed in support of data analyses, and "what if" scenarios. The student will submit experimental and investigative findings in a conventional scientific written format. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ENVS 126 F Natural History of California (3)

Three hours lecture per week. This course is designed to acquaint students with the diversity of California's natural geographic, biologic, and geologic regions. After introductory units on basic ecology and basic geology, each of the natural regions of the state is discussed with an emphasis on the common, conspicuous, or unique plants, animals, and geological features. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ENVS 126FF Natural History of California

Field Lecture (2)
Corequisite: ENVS 126 F
Two hours of lecture per week. This course is designed to accompany ENVS 126 F Natural History of California, and consists of two weekend field trips involving overnight camping. Regions are selected that illustrate California's remarkable diversity. One field trip, emphasizing mountain habitats, is taken to a selected site in the Sierra Nevada or one of the local mountain ranges. The other trip, emphasizing a desert experience is taken to a site in the local desert such as Anza Borrego Desert State Park, Joshua Tree National Monument, or the Eastern Mojave Natural Area. (CSU) (UC) (Degree Credit)

## ENVS 194 F Internship in Environmental Sciences/Newport Bay (2)

Two hours lecture or equivalent per week. The course includes field trips, teaching demonstrations and group activities. This course introduces the basic ecology of estuaries, natural history of marine and terrestrial animals and plants, cultural history of local native Americans, and the environmental importance of coastal wetlands. Students will follow experienced naturalists to learn about habitat restoration, scientific sampling, and/or interpretative techniques in the field. When mastery of selected topics has been achieved, students will design teaching materials and serve as naturalists/tour guides at Newport Bay. (CSU) (Degree Credit)

## ENVS 196 F Regional Field Studies/Life Sciences (1-2)

One or two hours of lecture per week or equivalent. Classes are conducted in the short course format, and require participation in fieldwork in a selected biological community in southwestern United States, Mexico, or Costa Rica. Field studies are designed to develop a strong foundation in ecological facts and principles. Emphasis is placed on identifying and studying ecological issues through careful observation, data collection and analysis. Students are trained in various field study techniques and the use of science instruments. Topics include autecological and synecological studies of biological communities, monitoring abiotic factors, field identification of flora and fauna, and human impact on the study area. (CSU) (Degree Credit)

## ENVS 197 F Internship in Environmental Sciences/Environmental Concerns (2)

Two hours lecture, teaching demonstrations and small group discussions per week or equivalent. Students will be assisted in selecting and developing teaching modules in defined areas of environmental science or related topics. Students will gain expertise in their selected topics with guidance from the instructor. Students will then serve as teaching interns in K-6 classrooms by presenting teaching modules to specific grade level(s) of choice in area schools within the North Orange County Community College District. (CSU) (Degree Credit)

## ENVS 198AF Desert Field Natural History (1)

One hour of lecture per week or equivalent. This course involves lecture and field study of desert ecological principles and concepts in selected areas within California's desert ecosystems. Lectures will provide an overview of field natural history concepts, including identification of plants and animals, adaptations to xeric environments and ecological interrelationships. Students are trained in various field study techniques and in the use of specific scientific equipment. Field trips are required. (CSU) (Degree Credit)

## ENVS 198CF Geology and Marine Biology of the Channel Islands (2)

This course involves lecture and field study of geological and marine biological processes and features in the Channel Islands region of Southern California. Lectures will examine how to recognize key geologic landforms and marine habitats in the field. Particular attention will be focused on the relationship between geology and the marine life. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ENVS 198DF Baja California Field Studies (2)

Two hours of lecture per week or equivalent. This course involves lecture and on-site field study of the ecology and biogeography of selected biological communities in Baja California, Mexico. Lectures will cover an introduction to the natural history and unique adaptations of native plants and animals occurring in coastal inter-tidal, desert and riparian habitats. Impacts of humans on these communities will be observed. Lectures will prepare students for planning and executing field projects using appropriate scientific methods and instrumentation. A camping field trip to Baja California is required. Students will arrange personal transportation. (CSU) (Degree Credit)

## ENVS 198EF Marine Biology of Baja California (2)

Two hours of lecture per week or equivalent. This course involves lecture and field study of the marine biology of Baja California. Lectures will examine the particular physical and biological features that structure this unique marine environment. The factors shaping the Gulf of California versus Pacific Coasts will be discussed, including the roles of tidal and wind-driven upwelling in dampening El Niño effects in the Gulf. Students are trained in various field study techniques, data analysis, and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

## ENVS 198FF Marine Vertebrate Ecology of the Channel Islands (1)

One hour lecture per week or equivalent. This course involves lecture and field study of the ecology of marine mammals, seabirds, and fish in the Channel islands area. Lectures will examine the physical and biological features that structure the marine environment in the region, along with the adaptations and ecological relationships of marine vertebrates living there. Students are trained in various field study techniques, data analysis, and the use of scientific instruments. Field trips are required. (CSU) (Degree Credit)

# Environmental Technology (ET) 

Natural Sciences Division
Office: Bldg 1000
714.992.7043

Dean: Bruce Cordell
Website: http://natsci.fullcoll.edu/

Associate in Science Degree<br>Environmental Technology Certificate Program

## Environmental Technology Courses

## ET 100 F Introduction to Environmental Technology (3)

Three hours lecture per week. This course is designed to give the student a general overview of the environmental technology area. The history of pollution leading to current legislation, environmental effects of pollution, and an overview of the regulatory framework will be presented. Career opportunities in the areas of handling a management of hazardous substances will be discussed. (CSU) (Degree Credit)

## ET 110 F Waste Stream Generation/Reduction/ Treatment (3)

Advisory: CHEM 101 F and MATH 020 F
Three hours lecture per week. The study of industrial processes and their generation of waste streams in seven selected industries: electroplating, metal finishing and printed circuit board production, oil refining and chemical production, general manufacturing, printing and graphic reproduction, agriculture, and consumer services. The course will center on various raw materials and chemicals used in industry, examining the changes that occur as they move through the industrial process, and understanding the material balance concept of inventory. Throughout the course, discussion of applicable regulations will be included, and the importance of waste minimization/treatment concepts will be stressed. Home hazardous waste generation and reduction will also be considered. (CSU) (Degree Credit)

## ET 130 F Health Effects of Hazardous Materials (3) <br> Prerequisite: BIOL 101 F

Three hours lecture per week. This course covers the acute and chronic health effects produced by exposure to chemical, physical, and biological agents. Emphasis will be placed on those hazardous materials commonly associated with industrial operations, waste disposal, and remediation sites. Topics will include routes of entry, toxic effects, risk evaluation, permissible exposure limits, medical surveillance, control methods for reducing exposure and understanding a Material Safety Data Sheet (MSDS). (CSU) (Degree Credit)

## ET 150 F Hazardous Waste Management Applications (4)

## Prerequisite: ET 100 F and CHEM 101 F

Three hours lecture and three hours lab per week. This course provides an overview of hazardous waste regulation with emphasis in generator compliance, site investigation and remediation, permitting, enforcement, and liability. The lecture portion of the course explains the hazardous waste regulatory framework, introduces the student to a wide variety and types of environmental resources available, and develops research skills in the hazardous waste area. The lab portion of the course complements the lectures by providing "hands on" application of the regulations at the technician level. Proper methods of preparing a hazardous waste manifest, labeling of storage containers, sampling and analysis, preparing a Phase I Environmental Audit, and selecting environmental consultants are among the many skills developed in the lab. (CSU) (Degree Credit)

## ET 200 F Hazardous Materials Management Applications (4)

Prerequisite: ET 100 F, ET 130 F, and CHEM 101 F
Three hours lecture and three hours lab per week. A study of the requirements and applications of federal, state, and local laws and regulations relating to hazardous materials. The course will emphasize compliance with Department of Transportation, OSHA Hazard Communication, SARA Title II Right-To-Know, Underground Tank, Asbestos, Proposition 65, and Air Toxic Regulations. The lecture portion of the course will provide the student with an understanding of the legal framework of hazardous materials laws; the lab portion will focus on applications of these laws, such as: proper labeling, interpreting Material Safety Data Sheets (MSDS's), permitting and monitoring functions, as well as planning and reporting functions. (CSU) (Degree Credit)

## ET 230 F Safety and Emergency Response (4)

## Prerequisite: ET 130 F

Three hours lecture and three hours lab per week. This course is designed to provide students with "hands on" instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Topics include: hazard analysis, contingency planning, house keeping and safety practices including proper use and selection of PPE, site control and evaluation, handling drums and containers, field sampling and monitoring, proper use of instruments, incident response planning, emergency response including field exercises in the use of PAPR and SCBA, and an understanding of the ICS system. This course satisfies the requirements for generalized employee training under OSHA (1919.120). (CSU) (Degree Credit)

# Ethnic Studies (ETHS) 

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

Associate in Arts Degree<br>Associate in Arts Degree, Chicano/Chicana Studies

## Ethnic Studies Courses

## ETHS 101 F American Ethnic Studies (4)

Three hours lecture and two hours discussion per week. This course serves to broaden the ethnic and racial perspective of students interested in American culture and society. Utilizing an interdisciplinary approach that represents the disciplines of anthropology, sociology, psychology, political science, and history, as well as community resource people, the course offers an in-depth analysis of ethnic minorities in the United States. Emphasis is given to Indians, Black, Chicano, and Asian Americans, their relationships with each other and the rest of American society and government, past and present. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## ETHS 110 F Introduction to Multicultural Studies (3)

Three hours of lecture and discussion per week. A survey course which reviews the concepts of ethnic studies and their applications to world cultures. (Degree Credit)

## ETHS 118 F Introduction to Bilingual-Crossculturalism (3)

Letter Grade or Pass/No Pass option
Three hours lecture and discussion per week. The course will acquaint the student with a conceptual framework needed to explore and develop a cultural consciousness and a set of practical skills required to function more effectively in the increasingly complex and cross-cultural environments of our contemporary communities, classrooms, offices and other workplaces. Special emphasis will be placed on how we cross linguistic, cultural and color lines and the possible tensions, conflicts/clashes which abound in a multiethnic state still struggling to become multicultural. (CSU) (Degree Credit)

ETHS 129 F Introduction to African American Studies (3) Three hours lecture per week. This survey course presents the student with an examination of the African American experience, and traces the role and contributions of Black people in the development of the United States. Included are such major topics as origins in Africa and the historical development of the Black community and culture as they evolved in the United States. An emphasis will be placed on the basic terms and references that give substance to Afro-American studies, as well as contemporary Black issues. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ETHS 130 F African-American History I (3)

Three hours lecture per week. This course is a survey of the AfricanAmerican experience in the United States from its African roots to 1865, emphasizing the roles of African Americans in the political, social, and economic development of American society. Topics covered include: the trans-Atlantic slave trade; the process of enslavement in the Americas; slave life on the plantation; slave resistance, the socio-economic conditions of free blacks in the United States; the politico-economic dispute regarding slavery and its consequences in the outbreak of the American Civil War; and the emancipation of the enslaved black population. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ETHS 131 F African-American History II (3)

Three hours lecture per week. This course is a survey of the AfricanAmerican experience in the United States from the Era of Reconstruction to the present, emphasizing the roles of African Americans in the political, social, and economic development of American society. Topics covered include: the various phases of the Reconstruction period; black life in the "New South"; the debates over educational and socioeconomic progress; the migrations to the North and West; the struggles of the black working class; the impact of the two world wars on black life; the Civil Rights Movement; military during the 1960s; and the black experience in contemporary America. (CSU) (UC) CSU GE, IGETC

## ETHS 140 F Introduction to Chicano/Chicana Studies (3)

Three hours lecture per week. This is an introductory level course designed to acquaint students with the most significant social, political, economic and historic aspects of the Chicano/Chicana experience in the United States. The course is interdisciplinary in nature and will critically analyze the societal context in which Chicanos/Chicanas have sought to maintain their culture. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ETHS 141 F Chicano/Chicana History (3)

Three hours lecture per week. This course provides the student with the social and cultural roots of the Chicana/Chicano. The class traces the origins of the Chicana/Chicano from their indigenous and Spanish beginnings to the present. An inter-disciplinary approach is used to develop the understanding of this human experience. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ETHS 142 F The Chicano-a/Latino-a in Contemporary

 Society (3)Three hours lecture per week. This course will introduce the student to the contemporary characteristics and significant contributions of the Chicano-a/Latino-a community utilizing the models and paradigms developed within Chicano studies, viewed as an interdisciplinary area of study. The definitions of, and interrelationships among key concepts and/or terms such as a people, nationality, culture, ethnicity, class, race, gender, acculturation, assimilation, domination and liberation will be discussed. The intent is to impart specific information about Chicanos-as, introduce theory, define key concepts, discuss significant contemporary issues, and explore future implications. There will be comparisons and contrasts with other Hispanic/Latino-a groups in the United States. (CSU) (UC) (Degree Credit) CSU GE, IGETC

ETHS 160 F History of the Native Americans (3)
Three hours lecture per week. A historical examination of the native peoples of the Americas from their early beginnings to the present. A socio-cultural approach is utilized to develop a better understanding of the first Americans. (CSU) (UC) (Degree Credit) CSU GE

## ETHS 170 F Introduction to Asian American Studies (3)

Three hours lecture per week. This course serves as an introduction to Asian American Studies. The student will be studying the experiences of various Asian and Pacific Islander groups, utilizing the lens of race, class, gender and sexuality. This will be achieved using various disciplinary methods. Throughout the semester students will engage in community studies, critical theory on race, sociological methods, media studies and the arts to explore the rich and diverse Asian and Pacific Islander communities. The course will start with current immigration history and end with contemporary issues and topics within API communities, i.e. garment industry, sexuality, anti-Asian bias/violence, unionization, and gender stereotypes. The course will connect historical issues with contemporary phenomena. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ETHS 171 F Asian-American History (3)

Three hours lecture per week. This course is a survey of the Asian and Pacific Islander American experience in the United States from the mid-19th century to the present day. Elements of Asian and Pacific Islander American culture (i.e., art, literature, music and photography) will be presented in a historical perspective. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## ETHS 199 F Ethnic Studies Independent Study I (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken three times for credit. (CSU) (UC Credit Limitation depending upon course content; UC review required.) (Degree Credit)

## ETHS 299 F Ethnic Studies Independent Study II (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

MUS 117 F American Popular Music/Jazz Music Survey (3) Prerequisite: Reading skills evaluation recommended
Three hours lecture per week, plus one hour listening in the Music Library per week. Beginning with the musical influences of India, Africa, and Europe, the course examines the social conditions that made the music happen "that way" and grow into today's music. Includes Ragtime and Storyville, Blues, Spirituals and the Great Awakening, Jazz Age, Depression and Radio, Swing the King, Big Bands, Boogie Woogie, Rhythm 'n Blues, Country and Western, Rock 'n Roll, Progressive Rock, Beatles and Rolling Stones, White Ballad Tradition and Electronic Music.

# Fashion Careers (FASH) 

Technology \& Engineering Division<br>Office: Bldg 700<br>714.992.7560<br>Dean: Scott McKenzie<br>Website: techneng.fullcoll.edu

Dressmaking - Alterations Certificate<br>Fashion Design Associate in Arts Degree<br>Fashion Design Certificate<br>Advanced Fashion Design Certificate<br>Fashion Illustration Certificate<br>Fashion Journalism Associate in Arts Degree<br>Fashion Merchandising Associate in Arts Degree<br>Fashion Merchandising Certificate<br>Image Consultant Certificate<br>Patternmaker Certificate<br>Product Development Apparel Certificate<br>Textiles and Clothing Associate in Arts Degree

## Fashion Courses

## FASH 010 F Clothing Construction Studio (1)

Pass/No Pass only
Corequisite: One semester of clothing construction
Three hours arranged lab per week. A student may pursue individual clothing construction projects under staff supervision during open lab hours. Sign up first week of school for flexible hours. Course may be taken four times for credit.

## FASH 020 F Modeling (2)

Two hours lecture for a total of thirty-two hours in each session. This course includes professional skills needed for men and women to enter a career in runway and print modeling. It will cover fashion show procedures and skills, professional makeup, posture enhancement, personal development, modeling for a photographer, developing a modeling portfolio, and working with agencies and contracts. Course may be taken four times for credit.

## FASH 045 F Swim and Active Wear (1)

Eight hours lecture and 24 hours lab. Students will learn the techniques needed to create commercial quality swimwear and active wear using both industrial and home equipment. Course may be taken twice for credit. (Degree Credit)

## FASH 050 F Careers in Fashion (1)

Letter Grade or Pass/No Pass option
Sixteen hours lecture per semester. This course is an introduction to a variety of career opportunities in designing or creating clothing. Personal qualities and skills needed for various career choices as well as the responsibilities, tools, and working environment will be covered for retailing, apparel manufacturing, couture, wardrobe consulting, theatrical, and entrepreneurial fields. (Degree Credit)

FASH 060 F Professional Image (2)
Letter Grade or Pass/No Pass option
Two hours lecture per week. This course will teach students the skills needed to get a job, develop a strong work ethic, become a valuable employee, and how to dress in a professional manner. The subject areas covered are: time management, goal setting, interview skills, wardrobe planning, personal appearance for men and women, developing skills to work well with others, problem solving, professional etiquette, and self promotion. (Degree Credit)

FASH 080AF Designing and Sewing Leather (2)

## Prerequisite: FASH 101 F

One hour lecture and three hours lab per week. The student will learn the skills and techniques needed to design and sew fashionable apparel and accessories of leather and suede.

## FASH 080BF Designing and Sewing Leather (2)

Prerequisite: FASH 080AF
One hour lecture and three hours lab per week. The student will learn the advanced specialized skills and techniques needed to design and sew fashionable apparel and accessories of leather and suede.

FASH 085 F Bridal and Special Occasion Wear (2)
Prerequisite: FASH 201 F
One hour lecture and three hours lab per week. This course covers specialized construction techniques used in the manipulation of fancy garment fabrics for bridal and special occasion wear. The resources for these fabrics, notions and embellishments used in the assembly of special occasion wear will also be included. Course may be taken twice for credit. (Degree Credit)

## FASH 088 F CAD for Apparel (2)

Advisory: FASH 108AF, FASH 186 F and ACG 104 F
One hour lecture and three hours lab per week. Students will learn the basics of 2-D Microcomputer paint and design programs used in the garment industry for designing apparel and textiles, making patterns and markers, fashion illustrating. Course may be taken twice for credit. (Degree Credit)

FASH 090 F Creative Serging: The Overlock Machine (2)
One hour lecture and three hours lab per week. The course is designed for the student to learn the use and care of the modern serger machine. The focus is on the student learning to create an entire wardrobe quickly with the serger. The student will construct samples and garments of children's clothing, men's wear, swimwear and active wear, lingerie, and women's clothing for day and evening. Course may be taken four times for credit. (Degree Credit)

## FASH 093 F Pattern Alteration and Fitting (2)

Letter Grade or Pass/No Pass option
One hour lecture and three hours lab per week. A class for dressmaking and design majors who need to make garment pieces fit each other and the body that wears them by altering a commercial pattern to body measurements and making a basic pattern to be used as a basic block for adjusting styles and designing clothing. Students enrolled in the second semester of FASH 093 F will have added opportunity to fit a variety of figures. Course may be taken twice for credit. (Degree Credit)

## FASH 101 F Clothing I (2)

Letter Grade or Pass/No Pass option
One hour lecture and three hours lab per week. This course is designed for both beginner and experienced seamstress. This course will include custom and speed techniques for developing skills in clothing construction, various techniques for obtaining perfect fit of a garment plus professional methods for constructing clothes. Course may be taken twice for credit. (CSU) (Degree Credit)

## FASH 107 F Apparel Analysis (3)

Three hours lecture per week. This course will study the psychological and sociological significance of clothing and apply the principles and elements of design in the selection of clothing to enhance the individual. (CSU) (Degree Credit)

## FASH 108AF Flat Pattern Methods and Design I (2)

Prerequisite: FASH 101 F or two years high school clothing construction
Corequisite: FASH 050 F
One hour lecture and three hours lab per week. Students will learn to design and make garments by apparel industry techniques by manipulating paper patterns, thereby translating a designer's sketch or concept into a saleable garment. (CSU) (Degree Credit)

## FASH 108BF Flat Pattern Methods and Design II (2)

 Prerequisite: FASH 108AFOne hour lecture and three hours lab per week. Students will make patterns for apparel using basic techniques learned in FASH 108AF and adding more advanced concepts for creating wearable clothing. (CSU) (Degree Credit)

## FASH 108CF Flat Pattern Methods and Design (2)

## Prerequisite: FASH 108BF

One hour lecture and three hours lab per week. Students will develop patterns for fashion forward apparel using techniques learned in FASH 108BF, adding more advanced concepts. (CSU) (Degree Credit)

## FASH 145 F Field Studies in Fashion (1,)

A total of 18 hours. This course will acquaint students with the world of fashion through field trips to manufacturers, designers, the California Mart, different types of retail stores, museums, fashion publications and fashion shows. Course may be taken twice for credit. (CSU) (Degree Credit)

## FASH 150 F Introduction to the Fashion Industry (3)

Three hours lecture per week. The course explores four levels of the fashion industry including the development of fashion, fashion designers, apparel producers, retailers, and fiber and fabric producers. (CSU) (Degree Credit)

## FASH 152 F Ready-To-Wear Evaluation (3)

Three hours lecture per week. The student will learn to analyze and evaluate the construction, appearance, pricing, sizing and fit of ready-towear and of price and quality indicators for selected accessories. Terminology associated with construction, production, and apparel styles will be included. (CSU) (Degree Credit)

## FASH 183 F Fashion Marketing (3)

## Prerequisite: FASH 150 F

Three hours lecture per week. The course will cover the principles behind consumer buying habits. Emphasis is placed on understanding consumer behavior of various socioeconomic and ethnic groups and how to market to them. (CSU) (Degree Credit)

FASH 186 F Workroom Sketching (2)
Letter Grade or Pass/No Pass option
One hour lecture and three hours studio/lab per week. This is a course in drawing techniques for garment workroom sketches. Emphasis is placed on developing skills in sketching garments with complete seam and embellishment details in the desired scale for use in the workroom of a manufacturer or custom shop. Drawing ability not necessary. Course may be taken twice for credit. (CSU) (Degree Credit)

## FASH 188 F Apparel Production (2)

Prerequisite: FASH 108AF and FASH 050 F
Corequisite: FASH 297 F
One hour lecture and three hours lab per week. This course provides an opportunity for students to become familiar with a major segments of the fashion industry. It will prepare students for a job as a design room assistant and includes layout and cutting techniques, power machines, professional pressing techniques, quality control, and production procedures, grading, sorting, and labeling. (CSU) (Degree Credit)

## FASH 190 F Pattern Grading (1)

Corequisite: FASH 108AF
Nine hours of lecture and 27 hours of lab. Students learn to "size up" and "size down" a fashion pattern for all size ranges in missy, junior, children, and men's wear using industry techniques. (CSU) (Degree Credit)

## FASH 196 F International Fashion Studies (3)

Letter Grade or Pass/No Pass option
Forty hours of lecture before and during extended travel experiences to the major fashion centers of the world, plus ten hours of field trips. This course will introduce the international fashion industries of the world to the student of American fashion. Class members will tour selected fashion houses, textile mills, leading department stores, typical shops, and museums. Sixteen hours of lecture will precede departure to prepare the student for the travel experience. (CSU) (Degree Credit)

## FASH 199 F Fashion Independent Study (1-2)

Prerequisite: Completion of at least one semester in the area of study Three hours independent lab work per week per unit credit plus scheduled conferences with instructor. This course is designed for advanced students who wish to increase their knowledge of fashion through individual study. Projects must have instructor approval prior to enrollment. At the completion of the project, a written report is required. Students may enroll up to a maximum of three semesters. (CSU) (UC review required.) (Degree Credit)

## FASH 201 F Clothing II (2)

Prerequisite: FASH 101 F with a grade of " $C$ " or better or two years high school clothing construction
One hour lecture and three hours lab per week. This course develops advanced skills in clothing construction including custom couture techniques, the use of special fabrics such as plaids, lace, sheers, leather and pile fabrics, and methods of individualizing clothing with structural and applied designs such as piping, quilting, appliqué and beading. Course may be taken twice for credit. (CSU) (Degree Credit)

## FASH 202 F Visual Merchandising (2)

One hour lecture and three hours lab per week. This course covers the role of display merchandising principles and design principles that are used to create retail displays. The care and handling of equipment will be discussed and demonstrated. Students will practice display techniques with windows and showcases and learn to develop a visual merchandising presentation. The students will be exposed to lectures and guest speakers on the topic of career opportunities in this field. (CSU) (Degree Credit)

## FASH 205AF Tailoring (2)

Prerequisite: FASH 201 F
One hour lecture and three hours lab per week. This course presents contemporary and traditional custom tailoring techniques applicable to women's and men's tailored garments such as suits and coats. (CSU) (Degree Credit)

## FASH 205BF Tailoring (2)

## Prerequisite: FASH 205AF

One hour lecture and three hours lab. This course presents contemporary and traditional custom tailoring techniques applicable to women's and men's tailored garments such as suits and coats. Students registered for FASH 205BF will construct a garment utilizing techniques they did not use in FASH 205AF. (CSU) (Degree Credit)

## FASH 206 F Textiles (3)

Three hours lecture per week. This course surveys and studies fabrics used in clothing and household goods, the production of fibers through fabric manufacturing and finishing. Use, care, and suitability for various end uses will be covered. (CSU) (UC) (Degree Credit)

## FASH 209AF Draping (2)

Prerequisite: FASH 108AF and FASH 186 F
One hour lecture and three hours lab per week. The student will learn to manipulate fabrics on a dress form and create designs without the use of a drafted pattern. A variety of fabrics will be used in an exploration of the many possibilities of draping techniques. (CSU) (Degree Credit)

## FASH 209BF Draping (2)

Prerequisite: FASH 209AF
One hour lecture and three hours lab per week. Students registered for FASH 209BF will be given more advanced assignments and work independently under the instructor's supervision. (CSU) (Degree Credit)

## FASH 220 F Retail Buying (3)

Three hours lecture/student project participation per week. This course offers a study of the principles of merchandise buying for resale in independent stores, major department stores, chain stores and centralized buying. The lectures will cover retail-buying principles for fashion merchandise, staples and soft merchandise lines. The lecture topics covered are: consumer motivation, merchandise planning and selection, sourcing, legal and trade regulation pricing, vendor relations, pricing analysis, classification systems, merchandise management and control. There will be field trips and guest lectures from major retailers to discuss career opportunities. (CSU) (Degree Credit)

FASH 242 F History of Costume (3)
Three hours lecture per week. This course surveys the evolution of clothing styles through history from Egyptian to the contemporary period. Emphasis will be placed on the relation of recurring styles to contemporary fashion, the effect of social and political changes on clothing, and on clothing as a reflection of culture. (CSU) (Degree Credit) AA GE

## FASH 243 F Theatrical Costume Construction (2)

Corequisite: FASH 209AF and FASH 242 F
One hour lecture and three hours lab per week. Recommended for Fashion Design and Theatre Arts majors. This course covers the techniques and procedures for constructing costumes for theatrical productions including garments, masks and accessories. (Not currently being offered - if interested, contact Division Office or see THEA 145 F in Theatre Arts.) (CSU) (UC) (Degree Credit)

FASH 244 F Ethnic Costume (2)
Letter Grade or Pass/No Pass option
Total of 32 hours lecture. This course surveys clothing worn as the national dress and daily wear of the people in each of the developed and underdeveloped areas of the world. Emphasis is placed on its influence on contemporary fashion. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (Degree Credit) (Transfers to Woodbury) AA GE, MULT CULT REQ

## FASH 250 F Fashion Promotion (3)

Prerequisite: FASH 150 F
Three hours lecture per week. The course provides an overview of sales promotion activities of fashion retailers and manufacturers. Areas covered are advertising, publicity, coordinating fashions, and producing fashion shows. (CSU) (Degree Credit)

## FASH 284AF Fashion Design (2)

Corequisite: FASH 108AF, FASH 206 F and FASH 186 F
One hour lecture and three hours lab per week. The students will learn the application of design principles to contemporary fashion for ready-towear and couture and how to make it salable. Class work will require garment sketching. Current fashion trends and resources for design ideas will be explored. (CSU) (Degree Credit)

## FASH 284BF Fashion Design (2)

## Prerequisite: FASH 284AF

One hour lecture and three hours lab per week. This course covers design problems encountered in the various size ranges, style categories, and price ranges in designing seasonal lines and promotional groups in the manufacturing of apparel. Current fashion trends and resources of design ideas will be explored. (CSU) (Degree Credit)

FASH 297 F Fashion Design Portfolio (1)
Prerequisite: FASH 108BF and FASH 209AF
Corequisite: FASH 188 F
Sixteen hours lecture. This course will prepare a student, who has completed the requirements for a Fashion Design Certificate or an AA degree, to begin seeking employment. Included are establishing a portfolio of designs, writing a resume, interview skills, finding job openings, follows up, salaries, and freelancing. (CSU) (Degree Credit)

## FASH 299 F Fashion Industry Internship (1-4)

Prerequisite: For Design Majors: FASH 108BF, FASH 209AF and FASH 188 F
Prerequisite: For Merchandise Majors: FASH 150 F, FASH 250 F, and FASH 220 F
One hour lecture, five hours supervised experience per week for each unit of credit with a garment manufacturer or retailer or one of the related businesses in the fashion industry. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

## FASH 975 F Patternmaking: Collections (2)

Prerequisite: FASH 108AF and FASH 209AF
One hour lecture and three hours lab per week. Students will apply design principles to contemporary fashion by designing and producing a group of coordinated garments that will be included in a runway fashion show. (Degree Credit)

## FASH 976 F Advanced Patternmaking: Collections (2) <br> Prerequisite: FASH 975 F

One hour lecture and three hours lab per week. Students continue to advance the skills learned in FASH 975 F using a variety of techniques not previously mastered. (Degree Credit)

## Foods and Nutrition (FOOD)

Natural Sciences Division
Office: Bldg 1000
714.992.7043

Dean: Bruce Cordell
Website: http://natsci.fullcoll.edu/
Associate in Arts Degree

## Foods Courses

## FOOD 060 F Foods for Fitness (2)

One hour lecture and three hours lab per week. This course presents nutrition information to enhance knowledge about food choices. The principles of nutrition and food preparation are presented in a nontechnical format. Students are able to apply new knowledge to their personal fitness, diet, and health goals. Labs include the planning and preparation of meals which are emphasized in the current Dietary Guidelines for Americans. (Degree Credit)

## FOOD 070 F Nutrition Concepts and Food Preparation for Vegetarians (2)

One hour lecture with three hours lab per week. This course is designed to develop a basic understanding of the vegetarian diet with practical applications in food preparation. Emphasis will be on the practical preparation of health-promoting food for the lacto, lacto-ovo vegetarian and vegan.

## FOOD 101 AF Introduction to Foods (formerly Foods) (3)

One hour lecture and six hours lab per week. This course is designed to provide the student with knowledge of the fundamental scientific principles involved in food preparation, as well as practical experience in applying these principles to a wide variety of foods representative of those consumed in the U.S. Emphasis is placed on developing skills in utilizing appropriate basic scientific methodology to study the components of food and food products; and on acquiring a knowledge of, as well as applying, generally-accepted quality standards to such foods and food products. (CSU)

## FOOD 101BF Introduction to Food Management (formerly Foods) (3) <br> Prerequisite: FOOD 101AF

One hour lecture and six hours lab per week. This course adds to and reinforces the principles taught in FOOD 101AF. It introduces experiences in managing time, money and human energy in the production of meals which meet the nutrient needs of various population groups. (CSU) (Degree Credit)

## FOOD 130 F Cultural Aspects of Foods (2)

One hour lecture and three hours lab per week. This course examines food as an expression of cultural unity and diversity. Students will investigate the many culture influences on food choices and patterns. Preparation techniques and products from a variety of traditions as practiced in the United States will be explored. (CSU) (Degree Credit) MULT CULT REQ

## Nutrition Courses

## NUTR 210 F Human Nutrition (3)

Three hours lecture per week. This course is an introduction to the science of nutrition. Major principles, functions and sources of nutrients, health and disease, as well as, chemistry and physiology as they relate to nutrition are discussed. General application as it applies to today's students is stressed. Students will analyze their food intake. (Degree Credit) AA GE, CSU GE

## CDES 215 F Nutrition and Food Experiences for Children (2)

A total of 32 hours lecture. This course focuses on the use of food as an instructional medium in early childhood settings. Emphasis is placed on the planning and organization of food-related activities for young children, including safety and sanitation issues; the application of basic nutrition principles to menu planning/evaluation; the resolution of common food-related problems such as obesity and caregiver manipulation; and techniques and resources for providing culturally-appropriate foods and nutrition education. (CSU) (Degree Credit)

## French (FREN)

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## French Courses

## FREN 101 F Elementary French I (5)

Letter Grade or Pass/No Pass option
Five hours lecture per week plus one arranged lab hour per week. The course focuses on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of French-speaking countries. This course is conducted primarily in French. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## FREN 102 F Elementary French II (5)

Letter Grade or Pass/No Pass option
Prerequisite: FREN $101 F$ with a grade of " $C$ " or better or one year of high school French with a grade of "C" or better
Five hours lecture per week plus one arranged lab hour per week. The course continues to focus on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of French-speaking countries. This course is conducted primarily in French. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## FREN 200 F Conversational French (2)

Letter Grade or Pass/No Pass option
Prerequisite: FREN 102 F with a grade of " C " or better or two years high school French with a grade of " $C$ " or better
This course will focus on improving listening comprehension and speaking skills in simulated real-life situations within the framework of ACTFL Proficiency Guidelines. Reading, writing and cultural components will be included. This course may be taken concurrently with French 203 F and 204 F (preferably after FREN 203 F). Instruction will be in French. Course may be taken four times for credit. (CSU) (Degree Credit)

## FREN 203 F Intermediate French III (4)

Letter Grade or Pass/No Pass option
Prerequisite: FREN 102 F with a grade of "C" or better or two years high school French with a grade of "C" or better
Four hours of lecture per week. The course emphasizes the acquisition of an expanded vocabulary and grammatical information to develop speaking, reading and writing skills. New cultural, historic and literary material is introduced through lectures, reading and writing assignments. The course is conducted in French. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## FREN 204 F Intermediate French IV (4)

Letter Grade or Pass/No Pass option
Prerequisite: FREN $203 F$ with a grade of " $C$ " or better or three years high school French with a grade of "C" or better
Four hours of lecture per week. The course emphasizes the mastery and application of all grammatical rules. It requires more advanced reading of modern and classical French, as well as a continued emphasis on oral and written expression. It is designed to help the student acquire a working knowledge of the language and to form the basis for advanced work in literature and science. Continued readings and discussions of French life and culture are an essential factor. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## FREN 299 F French Independent Study (1)

Prerequisite: Four semesters of the language
One hour lecture or scheduled conference per week. For able students who wish to increase their knowledge of literature, culture, language, or composition through individual study or research. Elective credit in the humanities area. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

# Geography (GEOG) 

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

## Associate in Arts Degree

## Geography Courses

## GEOG 100 F Global Geography (3)

Three hours lecture per week. This course is an overview of the world's geographical regions. It is an introduction to basic geographical concepts, as well as human and physical spatial patterns. The nature of global geography includes population dynamics and the social, political and economic organization of space. Fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## GEOG 100HF Honors Global Geography (3)

Three hours lecture per week. This course is an overview to the world's geographical regions enhanced for honors students. It is an introduction to basic geographical concepts, as well as human and physical spatial patterns. The nature of global geography includes population dynamics and the social, political and economic organization of space. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## GEOG 102 F Physical Geography (3)

Three hours lecture per week. This course is an overview of the interrelationships, geographic patterns and basic physical processes that create the physical landscapes of the world. The study of geosystems involves the connections between the atmosphere, lithosphere, hydrosphere and biosphere. Topics covered include weather, climate, soils, natural vegetation and the forces and processes that modify the surface of the earth. Special emphasis is given to contemporary ecological problems. This course meets a physical science requirement at most four-year institutions. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## GEOG 102LF Physical Geography Lab (1)

Corequisite: GEOG $102 F$ within the past three semesters
Three hours lab/field study per week designed to supplement GEOG 102 F Physical Geography. This course examines the processes of weather and climate, the construction/destruction of the earth's land surface focusing on internal and external forces, and the evolution of associated flora and fauna. The course will emphasize the understanding of the spatial distributions of the earth's physical characteristics and the relative importance of natural and human induced environmental changes such as global warming, human land-use and resources acquisition, and the transformation and creation of human environments. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## GEOG 120 F Global Environmental Problems (3)

Three hours lecture per week. This course is a geographical evaluation of society-nature relationships and the analysis of global environmental problems. The focus is on the spatial dimensions of global environmental crises as they relate to social, political and economic issues. Topics examine the historical evolution of environmental issues including population growth, agriculture and pesticides, climate change, forestry and fishing, energy, endangered species and appropriate development. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## GEOG 131 F Introduction to Desktop GIS (2)

Letter Grade or Pass/No Pass option
This course provides an introduction to concepts and the use of a Geographic Information System (GIS), and its role in analysis and decisionmaking. Various applications of GIS technology used in business, economics and government will also be presented. Specific topics and skills taught will include an understanding of GIS terminology, verification of data sources and accuracy, methods of data acquisition, conversion and input, requirements for metadata, working with spatial databases (map features and attribute tables), and spatial analysis (map overlays, buffers, networks). (CSU) (Degree Credit)

## GEOG 160 F Cultural Geography (3)

Three hours lecture and discussion per week. This course provides a study of variations in the world's cultural landscapes, focusing on spatial patterns of population growth and distribution, settlement and livelihoods in the context of social, religious and political belief systems. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

GEOG 170 F Urban Geography: Introduction to the City (3) Three hours lecture and discussion per week. This course provides an analysis of variations in the urbanization process of great American and world cities. The focus will be on the city as a built environment. Topics will include historic evolution, patterns of distribution, internal spatial structures, urban systems and urban social issues. (CSU) (UC) (Degree Credit)

## GEOG 199 F Geography Independent Study (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken four times for credit. (CSU) (UC Credit Limitation depending upon course content) (UC review required.) (Degree Credit)

## GEOG 241 F Basic Crime Mapping (3)

Letter Grade or Pass/No Pass option
Prerequisite: GEOG 131 F
This course provides an introduction to the basic concepts and use of a Geographic Information System (GIS) for crime mapping and analysis. Students will engage in hands-on training in GIS as it relates to Law Enforcement and Criminal Justice activities. Students will also be introduced to extensions of ArcView software such as Network Analyst and Tracking Analyst. These add-on modules extend the analytical capabilities of ArcView and allow input of routing and temporal map features to existing databases. Students will generate production quality maps, documents and reports for use in spatial analysis and decision-making. (CSU) (Degree Credit)

## GEOG 242 F Advanced Crime Mapping (3)

Letter Grade or Pass/No Pass option

## Prerequisite: GEOG 241 F

This advanced course provides further study in crime mapping and analysis applications of Geographic Information Systems (GIS). Students will engage in expanded hands-on training in GIS as it relates to Law Enforcement and Criminal Justice activities and be introduced to 3-D Analyst and Spatial Analyst add-on modules of ArcView software. These modules extend the analytical capabilities of ArcView and allow input of map features and conversion of feature themes from raster to vector. Spatial analysis will include neighborhood and zone analysis. 3-D Analyst will include conversion of data to a three dimensional format for analysis of real world relationships that would be abstract in two dimensions. Students will produce professional quality documents and reports for use in spatial analysis and decision-making. (CSU) (Degree Credit)

## GEOG 281 AF Introduction to Geographic Information Systems (3)

## Letter Grade or Pass/No Pass option

Three hours lecture per week. This course provides an introduction to concepts and use of Geographic Information Systems (GIS), and its role in geographic analysis and decision-making. This course will include an introduction to basic cartographic principles, maps, scales, coordinate systems and amp projections. Varied applications and examples of GIS technology used in environmental science, business, government and social sciences will also be presented. Specific topics and skills taught will include an understanding of GIS terminology, raster and vector data structures, verification of data sources and accuracy, methods of data acquisition, conversion and input, requirements for metadata, working with spatial databases (map features and attribute tables), and spatial analysis (map overlays, buffers, networks). (CSU) (Degree Credit)

## GEOG 281 BF Advanced GIS Applications (3)

Letter Grade or Pass/No Pass option
Prerequisite: GEOG 281AF
This course provides an introduction to advanced applications of Geographic Information Systems (GIS) using ArcView. The course will provide hands on training in new plug in modules and extensions of ArcView. The course will also briefly review Avenue programming for customizing ArcView. The add-on modules extend the analytical capabilities of ArcView and allow input of map features and conversion of feature themes from raster to vector. Spatial analysis will include slope and aspect maps, neighborhood and zone analysis. Network Analyst will include problem-solving techniques for geographic networks (point to point routing) or closet points. 3-D Analyst will include conversion of data to a three dimensional format for analysis of real world relationships that would be abstract in two dimensions. Use of ArcView software to product professional quality documents for use in spatial analysis and decision-making. (CSU) (Degree Credit)

## GEOG 295 F GIS Internship (1-5)

Letter Grade or Pass/No Pass option
Three to fifteen hours lab per week.
A directed field study program whereby students will apply classroom instruction to real-world Geographic Information Systems (GIS) projects in the community. The student will be under the supervision of a faculty advisor from the college while participating in a short-term internship program in a business or government agency using GIS. Students should arrange for an advisor prior to enrolling in an internship. Students in internship programs will meet periodically with their advisor, complete interim reports and present a final report. (CSU) (Degree Credit)

## German (GERM)

## Humanities Division

Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## German Courses

## GERM 101 F Elementary German I (5)

Letter Grade or Pass/No Pass option
Five hours lecture per week plus one arranged lab hour per week. The course focuses on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of German-speaking countries. This course is conducted primarily in German. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## GERM 102 F Elementary German II (5)

Letter Grade or Pass/No Pass option
Prerequisite: GERM 101 F with a grade of " $C$ " or better or one year of high school German with a grade of " $C$ " or better
Five hours lecture per week plus one arranged lab hour per week. The course continues to focus on the four major skills of language learning — listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of German-speaking countries. This course is conducted primarily in German. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## GERM 200 F Conversational German (2)

Letter Grade or Pass/No Pass option
Prerequisite: GERM 102 F with a grade of " $C$ " or better or two years high school German with a grade of "C" or better
This course will focus on improving listening comprehension and speaking skills in simulated real-life situations within the framework of the ACTFL Proficiency Guide lines. Reading, writing and cultural components will be included. This course may be taken concurrently with GERM 203 F and GERM 204 F. Instruction will be in German. Course may be taken four times for credit. (CSU) (Degree Credit)

GERM 203 F Intermediate German III (4)
Letter Grade or Pass/No Pass option
Prerequisite: GERM 102 F with a grade of " $C$ " or better or two years high school German with a grade of "C" or better
Four hours of lecture per week. The course emphasizes the acquisition of advanced skills in listening, speaking, reading, and writing. Students will be introduced to further elements of the culture, history, and geography of Germany through lectures, slides, films, dialogues and reading assignments. Instruction will be in German. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## GERM 204 F Intermediate German IV (4)

Letter Grade or Pass/No Pass option
Prerequisite: GERM 203 F with a grade of " $C$ " or better or three years high school German with a grade of "C" or better
Four hours of lecture per week. The course emphasizes the acquisition of more advanced listening, speaking, reading, and writing. Students will be introduced to the further elements of culture, history and geography of Germany through lectures, slides, films, dialogues and reading assignments. Instruction will be in German. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## GERM 299 F German Independent Study (1)

Prerequisite: Four semesters of the language
One hour lecture or scheduled conference per week. For able students who wish to increase their knowledge of literature, culture, or language through individual study or research. Elective credit in the humanities area. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

Natural Sciences Division<br>Office: Bldg 1000<br>714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

## Health Education Courses

## HED 140 F Health Science (3)

Three hours lecture per week. Integrated lectures, discussions and videotapes are designed to study modern medical concepts. Lecture and discussion topics include personal responsibility, mental health, nutrition, weight control, exercise, sexuality, relationships, immunity, alcohol, tobacco, drugs, current health problems and health care services. Basic concepts will be presented from a holistic perspective to inform students of health issues that affect their individual lives and society. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## HED 197 F Internship in Health Education (2)

Letter Grade or Pass/No Pass option
One hour lecture per week, and a total of forty hours at the internship site required. Professionals from the biological sciences and allied health fields will be invited for informative discussions and to answer questions in their field. Students will be assisted in selecting an area of career interest within the biological, allied health and related science fields, and will be directed to locations that will be willing to provide internships. Students will gain experience in their selected areas of interest by working in a "hands on" environment. (CSU) (Degree Credit)

# History (HIST) 

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/<br>\section*{Associate in Arts Degree}<br>\section*{History Courses}

## HIST 110 F Western Civilization I (3)

Three hours lecture per week. This course is a study of western civilization from prehistoric times through the 16th century, e.g., Mesopotamian, Egyptian, Hebrew, Greek, Roman, Byzantine, Muslim, Medieval, Renaissance and Reformation societies. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## HIST 110HF Honors Western Civilization I (3)

Three hours lecture and discussion per week. This course is a study of western civilization from prehistoric times through the 16th century, e.g., Mesopotamian, Egyptian, Hebrew, Greek, Roman, Byzantine, Muslim, Medieval, Renaissance and Reformation societies. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## HIST 111 F Western Civilization II (3)

Three hours lecture per week. This course is a study of the development of Western Civilization from the sixteenth century to the present day, emphasizing the political, economic, religious, social, and cultural forces at work in the various geographic areas. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## HIST 111 HF Honors Western Civilization II (3)

Three hours lecture and discussion per week. This course is a continuation of HIST 110 F or 110 HF Western Civilization. It is a study of the development of Western Civilization from the sixteenth century to the present day, emphasizing the political, economic, religious, social, and cultural forces at work in the various geographic areas. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## HIST 112 F World Civilizations I (3)

Three hours lecture and discussion per week. This course is a survey of the development of and interconnections among the civilizations of Europe, Africa, the Middle East, India, China, Japan and the Americas, from earliest times to CE 1550. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

HIST 112HF Honors World Civilizations I (3)
Three hours lecture and discussion per week. This course is a survey of the development and interconnections among the civilizations of Europe, Africa, the Middle East, India, China, Japan and the Americas, from the earliest times to AD 1550. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## HIST 113 F World Civilizations II (3)

Three hours lecture and discussion per week. This course is a survey of the development of and interconnections among the civilizations of Europe, Africa, the Middle East, India, China, Japan and the Americas, from CE 1550 to the present. (CSU) (UC Credit Limitation) (Degree Credit), AA GE, CSU GE, IGETC, MULT CULT REQ

## HIST 113HF Honors World Civilizations II (3)

Three hours lecture and discussion per week. This course is a survey of the development and interconnections among the civilizations of Europe, Africa, the Middle East, India, China, Japan and the Americas, from AD 1550 to the present. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## HIST 127 F Survey of American History (3)

Three hours lecture per week. This course is a survey of American history from the colonial foundations to the present time. (CSU) (UC Credit Limitation. Credit will be granted for either HIST 127 F or HIST 170 F or HIST 170HF and HIST 171 F or HIST 171HF as of F08). (Degree Credit) AA GE, CSU GE, IGETC

## HIST 151 F Survey of British History I (3)

Three hours lecture per week. A survey of British history from prehistoric times to 1714, emphasizing the contributions of Celts, Romans, AngloSaxons and Normans; the structure of society; the growth of monarchy, Common Law, Parliament and other governmental institutions; the development of architecture and literature; the role of the Church; and transformations brought by Reformation and Revolution during the Tudor-Stuart period. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## HIST 152 F Survey of British History II (3)

Three hours lecture per week. A survey of British history from 1714 to the present, emphasizing the role of prime ministers as well as monarchs; the development of foreign policy and naval power; the evolution of science, religion, education, literature, painting and architecture; the changes brought about by industrialization and two World Wars; the growth of the welfare state; and the rise and fall of the British empire. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## HIST 154 F Ancient Egypt (3)

## Letter Grade or Pass/No Pass option

Three hours lecture-discussion per week. This course surveys Egyptian politics, society, religion, and the arts from the Pre-dynastic period through Cleopatra. An introduction to hieroglyphs is included. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## HIST 160AF Asia: Basic Heritage (3)

Three hours lecture per week. This course is a study of the historical developments of Asia's three great civilizations: India, China and Japan. Concentration will be on the traditional institutions shaped by the religious and philosophical concepts of these civilizations. Certain concepts in Hinduism, Buddhism, Confucianism, Taoism, and Shintoism will be studied as they affected major Asian historical developments. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## HIST 160BF Modern China and Japan (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week. This course is a study of the revolutionary changes that have taken place in basic Asian traditions and institutions. Focus will be on the efforts of the Chinese and the Japanese to replace traditional institutions with something "modern" in their response to the coming of the West to Asia and to the challenge of Western ideas. Examination will be made of the impact of such concepts as Capitalism, Democracy, Imperialism, Nationalism, and Communism on the traditional culture of these countries. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## HIST 162AF History of the Americas I (3)

Three hours lecture per week. This course is a survey of the history of the Western Hemisphere from its discovery to the wars of independence. Emphasis is placed upon the European inheritance, the interaction of this inheritance with the native and African cultures and the planting of colonial societies in the new world. Spanish America, Brazil, Canada, and the United States are compared as to their socio-cultural, economic, and political development during the colonial and independence periods. This course satisfies the State requirements in American History and Institutions. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## HIST 162BF History of the Americas II (3)

Three hours lecture per week. This course is a comparative study of the political, social and economic development of the independent nations of the Western Hemisphere from the wars of independence to the present. Emphasis is placed upon present international relations of these nations. This course satisfies the State requirements in American history and institutions. HIST 162AF not a prerequisite. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## HIST 165 F Introduction to the Middle East (3)

Three hours lecture per week. This course is a historical development of the Middle East from the prophet Mohammed to the present, emphasizing the Islamic religion, art, philosophy, and key political and social conflicts of modern times. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## HIST 170 F History of the United States I (3)

Three hours lecture per week. This course is a survey of American History from the colonial foundations to 1877. (CSU) (UC Credit Limitation. Credit will be granted for either HIST 127 F or HIST 170 F or HIST 170HF and HIST 171 F or HIST 171HF as of F08) (Degree Credit) AA GE, CSU GE, IGETC

HIST 170HF Honors History of the United States I (3)
Three hours lecture per week. This course is a survey of American History from the colonial foundations to 1877. As an honors section, this class will employ enhanced teaching methods such as a seminar approach and more research-based writing assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation. Credit will be granted for either HIST 127 F or HIST 170 F or HIST 170HF and HIST 171 F or HIST 171HF as of F08) AA GE, CSU GE, IGETC

HIST 171 F History of the United States II (3)
Three hours lecture per week. This course is a survey of American History from 1877 to the present time. (CSU) (UC Credit Limitation. Credit will be granted for either HIST 127 F or HIST 170 F or HIST 170HF and HIST 171 F or HIST 171HF as of F08) (Degree Credit) AA GE, CSU GE, IGETC

HIST 171 HF Honors History of the United States II (3)
Three hours lecture per week. This course is a survey of American History from 1877 to the present time. As an honors section, this class will employ enhanced teaching methods such as a seminar approach and more research-based writing assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation. Credit will be granted for either HIST 127 F or HIST 170 F or HIST 170HF and HIST 171 F or HIST 171HF as of F08) (Degree Credit) AA GE, CSU GE, IGETC

## HIST 199 F History Independent Study (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken four times for credit. (CSU) (UC Credit Limitation depending upon course content) (UC review required.) (Degree Credit)

HIST 270 F Women in United States History (3)
Three hours lecture per week. This course focuses on women in American society from the colonial era to the present with emphasis on the social sphere of women, women's health, and the roles of women in wartime and peace and in such movements as antebellum reform, suffrage and feminism as well as the gender specific problems for women in the United States. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

HIST 275 F History of California and the Pacific Coast (3)
Three hours lecture per week. Economic, social, intellectual, and political history of California from the earliest times to the present. Special emphasis is placed upon the geography of the state and the 20th century development of Southern California. (CSU) (UC) (Degree Credit) CSU GE, IGETC

# Horticulture (HORT) 

Natural Sciences Division<br>Office: Bldg 1000<br>714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

Greenhouse and Nursery Production Certificate Landscape Management Associate in Science Degree<br>Landscape Design/Management Certificate<br>Landscape Horticulture Certificate<br>Landscape Irrigation Certificate<br>Nursery Management Associate in Arts Degree<br>Ornamental Horticulture Associate in Science Degree<br>Ornamental Horticulture Certificate<br>Pest Management Certificate<br>\section*{Horticulture Courses}

## HORT 001 F Principles of Horticulture I (4)

Three hours lecture and three hours lab per week. Identification and use of ornamental plants; culture of landscape plantings; survey of soil properties and fertilizers; morphology of leaves, flowers and fruit, and landscape design principles for basic horticultural skills in the gardening and nursery trade. (Degree Credit)

## HORT 002 F Principles of Horticulture II (4)

Three hours lecture and three hours lab per week. Plant propagation techniques; weed control in landscapes, plant disease control; responsible and safe use of pesticides and their alternatives and turf grass management techniques for basic horticulture skills in the gardening and nursery trade. (Degree Credit)

## HORT 005 F Basic Landscape Plants I (3)

Three hours lecture per week. The identification and study of trees, shrubs, vines; tropical and herbaceous plant material of landscape value. Special emphasis is placed on fall-blooming as well as broadleaf and narrow-leaf plants. This course designed for non-majors, homeowners, and those engaged in the fields of landscaping and horticulture. Not open for transfer credit for majors in Ornamental Horticulture and Landscape Architecture as a substitute for HORT 160 F Plant Identification. (Degree Credit)

## HORT 006 F Basic Landscape Plants II (3)

Three hours lecture per week. The identification and study of trees, shrubs, vines and herbaceous plant material of landscape value. Additional plants not covered in HORT 005 F , with special emphasis on spring-blooming deciduous plants. This course designed for non-majors, homeowners, and those engaged in the fields of landscaping and horticulture. Not open for transfer credit for majors in Ornamental Horticulture and Landscape Architecture as a substitute for HORT 161 F Plant Identification. (Degree Credit)

## HORT 008AF Landscape Pruning Practices (1)

Letter Grade or Pass/No Pass option
Two hours of lecture and three hours lab per week for six weeks or the equivalent. Principles and practices used in pruning ornamental shrubs, trees, vines, herbaceous perennials, groundcovers and fruit trees found in residential and commercial landscapes will be covered. Special attention is given to appropriate plant use and maintenance. (Degree Credit)

## HORT 008BF Basic Turf Care (1)

Letter Grade or Pass/No Pass option
Two hours lecture and three hours lab per week for six weeks or the equivalent. Fundamentals of lawn care for homeowners including planting, fertilization, irrigation, weed control, and pest control. Special techniques and equipment used for lawn renovation are also covered. (Degree Credit)

## HORT 008CF Home Pest Control (1)

Letter Grade or Pass/No Pass option
Two hours lecture and three hours lab per week for six weeks or the equivalent. Fundamentals of pest control for homeowners including identification and control of weeds, insects, vertebrates, arachnids, mollusks and diseases. Special emphasis is given to integrated Pest Management as a home pest control technique. (Degree Credit)

## HORT 010AF Landscape Lighting (3)

Two hours lecture and three hours lab per week for nine weeks. Principles and practices used in lighting outdoor trees, shrubs, planter beds and living spaces. Emphasis is given to appropriate selection of codeapproved low voltage electrical components, wiring and lighting fixtures for residential use.

## HORT 010BF Landscape Water Features (3)

Two hours lecture and three hours lab per week for nine weeks. Design and installation of landscape water features including ponds, garden streams, fountains and container water gardens. Students learn current construction techniques through an on-site installation.

HORT 045 F Training Pest Control Professionals (3)
Three hours lecture per week. Designed to assist persons desiring to be licensed as Pest Control Advisers or Pest Control Operators or pesticide dealers. Instruction involves laws and regulations, pesticide safety, control of insects, mites, nematodes and other invertebrate pests, plant disease control, and plant growth regulators used in the landscaping business. California Department of Food and Agriculture continuing education hours are available for this course. Course may be taken twice for credit. (Degree Credit)

## HORT 046 F Pesticide Safety for Landscape Workers (2)

Letter Grade or Pass/No Pass option
Two hours lecture per week. A course designed to teach pesticide safety to Spanish and English-speaking landscape workers. Students learn safe operations of application equipment, pesticide toxicity ratings, methods of exposure and pesticide labeling along with information about pest and disease life cycle and post host relationships. (Degree Credit)

## HORT 058 F Irrigation Controller Programming (2)

Letter Grade or Pass/No Pass option
Three hours lecture and three hours lab per week for eight weeks or the equivalent. This course provides hands-on experience in which students will learn the fundamentals of programming irrigation controllers and the steps involved in programming some of the most popular irrigation controllers available in the industry. Practical situations will be used to show the applications of basic and advanced controller features. The course will also provide a review of various central control computer irrigation systems. Three field trips will be scheduled to give students the opportunity to examine central control systems as water management tools in large commercial and recreational areas. (Degree Credit)

## HORT 070 F Volunteer Naturalist Training (2.5)

Letter Grade or Pass/No Pass option
Two hours lecture and one and one-half hour lab per week. A basic ecological course dealing specifically with the ecosystems represented in the wilderness parks and nature preserves of Orange County. Special emphasis will be placed on the natural history, geology and cultural history of our undeveloped areas. Training will also be given in the skills required to give nature tours in the parks. Assumes no science background. Weekly field trips required. (Degree Credit)

## HORT 075 F Habitat Assessment and Restoration (2.5)

 Letter Grade or Pass/No Pass optionTwo hours lecture and one and one-half hour lab per week. An eight week course designed to introduce students to the ecological theory, and practical application of a variety of habitat assessment, restoration and monitoring techniques. Scientific, social and legal aspects of restoration will be discussed. Training will emphasize habitat evaluation and restoration techniques used by industry, government agencies and environmental organizations. Weekly field trips will visit and assist in assessment and restoration projects.

## HORT 152 F Applied Botany (4)

Three hours lecture and three hours lab per week. A course in applied botany covering the basic concepts in plant structure and functions. Includes the study of plant growth and development, horticultural practices, and an overview of horticulture as a science and art and an industry. Practical exercises and field trips are part of the lab work. (CSU) (Degree Credit) CSU GE

## HORT 153 F Landscape Irrigation (3)

Two hours lecture and three hours lab per week. This course covers the principles and practices of installing basic irrigation systems. It includes the study of fittings, piping, valves, backflow preventers, controllers, and sprinklers; basic hydraulics, friction loss calculations and beginning irrigation design are also covered. (CSU) (Degree Credit)

## HORT 154 F Irrigation Design (3)

Prerequisite: HORT 153 F
Two hours lecture and three hours lab per week. This course covers the principles and practices of designing residential and small commercial irrigation systems. It includes the study of component selection, sprinkler spacing and location, hydraulic calculations, graphics presentation and current practices in water conservation in irrigation. Field trips and on-site analysis will be included as part of the lab. (CSU) (Degree Credit)

HORT 155 F Soils (3)
Two hours lecture and three hours lab per week. This course covers the following physical, chemical, and biological properties of soils: formation, texture, structure, compaction, stability and drainage, permeability and water-holding capacity, soil reaction, ionic exchange, organic matter, soil classification, water conservation, and soil conservation. (CSU) (UC) (Degree Credit)

## HORT 156 F Plant Nutrition (3)

Two hours lecture and three hours lab per week. This course covers the composition, value and use of fertilizers, soil correctives and soil amendments. Methods and techniques employed in detailed fertility analysis and horticultural suitability of soil media. Application equipment and fertilizer injection techniques. (CSU) (Degree Credit)

## HORT 157 F Irrigation Principles (3)

Prerequisite: HORT 153 F
Two hours lecture and three hours lab per week. This course covers the study and application of plant, soil and water relationships as they relate to irrigation. Sprinkler precipitation rates, soil infiltration rates and plant evapotranspiration rates are investigated to determine optimal irrigation, programming and efficient water usage. Lab hours will include field trips, lab investigations and on-site analysis. (CSU) (Degree Credit)

HORT 160 F Plant Identification (Ornamental Trees) (3)
Three hours lecture per week. The study of broadleaf and conifer trees used in California landscapes, with special emphasis on identification. Recommended as a transfer course for majors in horticulture and landscape architecture. (CSU) (UC; HORT 160 F and 161 F maximum credit one course.) (Degree Credit)

HORT 161 F Plant Identification (Ornamental Shrubs) (3)
Three hours lecture per week. The study of ornamental shrubs, ground covers, vines, tropical and herbaceous plant material used in California landscapes with special emphasis on identification. Recommended as a transfer course in the majors of horticulture and landscape architecture. (CSU) (UC; HORT 160 F and 161 F maximum credit one course.) (Degree Credit)

## HORT 162 F Landscaping for Dry Climates (3)

Advisory: HORT 200 F
Two hours lecture and three hours lab per week. A semester course covering the effects of Southern California environment upon plant selection, knowledge of the growth requirements of selected native and exotic species, and their proper usage in landscapes. Emphasis is placed upon functional values and aesthetic qualities of native and exotic droughttolerant plants. Through development of the design process the student will create landscape plans and make site analysis evaluations using an inventory of appropriate native and drought-tolerant exotic species. Field trips are integrated as part of the lab projects, including one weekend trip, which is required of all students. (CSU) (Degree Credit)

HORT 164 F Plant Identification (Annuals, Perennials, and Houseplants) (3)
Three hours lecture per week. This course covers the study of annuals, perennials, and houseplants used throughout California, with special emphasis on identification. It includes a comparison of the care requirements, culture and landscape usage for approximately 175 herbaceous ornamental plants. Recommended as a transfer course in the majors of horticulture and landscape architecture. (CSU) (Degree Credit)

## HORT 165 F Landscape Management (4)

Three hours lecture and three hours lab per week. New plantings and maintenance of existing plantings, including pruning, fertilization, pest control, lawn care, and landscape estimating. (CSU) (Degree Credit)

## HORT 168 F Landscape Construction (3)

Three hours lecture per week. Use and cost estimates of various landscape construction materials. Problems dealing with structure, grading, drainage, sprinklers, masonry, and electricity used in landscape construction. Course designed for students qualifying for the State Landscape Contractors Examination. (CSU) (Degree Credit)

## HORT 169LF Landscape Construction Lab (1)

Corequisite: HORT 168 F Landscape Construction
Three hours lab per week. Lab exercises in the use of wood, concrete, brick, blocks, and other materials of construction as they relate to structures, drainage, grading, utilities, and irrigation. (CSU) (Degree Credit)

## HORT 170 F Landscape Contracting (3)

Three hours lecture per week. This course covers the legal requirements and obligations of the landscape contractor, including contractor's law, lien rights, subcontractor regulations and employee labor law. It includes estimating and cost analysis for landscape trades. The course is directed toward preparing the student for passing the State Landscape Contractor's License Examination. (CSU) (Degree Credit)

## HORT 173 F Greenhouse and Nursery Production (3)

Two hours lecture and three hours lab per week. This course covers the current production methods used in producing greenhouse and nursery plants. Greenhouse and nursery facilities, and equipment will be covered along with business practices, computer applications, nursery automation and current irrigation systems. Recommended for students seeking careers in nursery-related trades. (CSU) (Degree Credit)

## HORT 174 F Plant Propagation (3)

Two hours lecture and three hours lab per week. This course covers the theoretical and commercial practices of plant propagation, including seeding and transplanting, preparation of cuttings, layering, division, budding and grafting, and micro propagation techniques. The use of plant hormones, plant physiology and genetic manipulation are discussed. (CSU) (Degree Credit)

## HORT 177 F Turfgrass Management (3)

Two hours lecture and three hours lab per week. Production, maintenance, and management of turf grasses. Lab and field experience in identification, planting, management practices, renovation, fertilization, and pest management methods. Valuable to individuals entering fields of landscape management, nursery management, and landscape architecture; also golf course managers, stadium and athletic field managers, park managers, and managers of memorial parks. (CSU) (Degree Credit)

## HORT 185 F Arboriculture (2)

Letter Grade or Pass/No Pass option
One hour lecture and three hours lab per week. This course covers current practices in maintaining trees through correct pruning, cabling and cavity repair. In addition, tree growth characteristics, local codes and regulations and safety practices related to pruning are covered. This course prepares students for the Certified Arborists examination. (CSU) (Degree Credit)

## HORT 188 F Integrated Pest Management (2)

Letter Grade or Pass/No Pass option
One and one-half hour lecture and one and one-half hour lab per week. A course, which provides students with a fundamental knowledge of integrated pest management. During the class, students learn to develop and implement pest control programs using cultural, biological and chemical methods. Emphasis will be placed on pest identification, pest monitoring and analysis of plant symptoms. (CSU) (Degree Credit)

## HORT 200 F Landscape Design (3)

Two hours lecture and two hours lab per week. Basic drafting techniques are taught combined with the principles of design leading to formal landscape drawings of homes. Includes the proper association of plant materials according to texture, color, mass, and cultural requirements. (CSU) (UC) (Degree Credit)

## HORT 201 F Advanced Landscape Design (3)

Prerequisite: HORT 200 F
Two hours lecture-discussion and three hours lab per week. A continuation of graphics, plant usage, and design theory covered in HORT 200 F, with emphasis on hillside developments and commercial projects. A survey of historical development of landscape. Design of landscape structures (walls, patio overheads, steps, walkways, pools) with focus placed on the basic qualities of the construction materials. Elements of perspective drawings for project presentations. Detailed site analysis and evaluation of ecological factors. Field trips are part of lab, including one weekend trip required of all students. (CSU) (Degree Credit)

## HORT 205 F Applied Entomology (3)

Two hours lecture and three hours lab per week. Study of the principles of entomology including external anatomy and internal anatomy and physiology, insect relatives, and insect classification and identification. Concepts of insect pest management techniques will be included. An insect collection with proper identification to order and family will be required of all students with lab and field examination placing emphasis on identification and control. (CSU) (Degree Credit) CSU GE

## HORT 207 F Plant Pathology (3)

Two hours lecture and three hours lab per week. An introductory study of the major plant diseases and their control. Fungi, bacteria, viruses, and nematodes causing diseases of economic crops throughout the U.S. are examined in the lab, greenhouse, and field. (CSU) (Degree Credit) CSU GE

## HORT 215 F Diseases and Pests of Ornamental Plants (4)

 Prerequisite: HORT 205 F or HORT 207 FThree hours lecture and three hours lab per week. Diagnosis and control of parasitic and non-parasitic disease problems in ornamental landscapes. Course also involves determination of insects, mites, and other pest problems affecting ornamental plantings and the methods employed in control. Lab and field trips will be utilized to observe various problems in production areas. Transfer credit to colleges offering similar courses. California Department of Food and Agriculture continuing education hours are available for this course. (CSU) (Degree Credit)

## HORT 218 F Landscape Hydraulics (3)

## Prerequisite: HORT 153 F

Two hours lecture and three hours lab per week. This course covers the principles of hydraulics related to open and closed piping systems, pipe and channel flow as applied to landscape irrigation and drainage system. It includes problems in water, storage, pumping system, surge and water hammer, fountains and ponds. (CSU) (Degree Credit)

## HORT 219 F CAD Applications in Horticulture (3)

Prerequisite: ACG 100 F, HORT 200 F or HORT 154 F
Two hours lecture, three hours lab per week. This course includes the use of computer aided drafting in the creation of landscape and irrigation designs. The use of symbol libraries, layered drawings, macros, and different drawing programs are included. Detail drawings, landscape and irrigation plans will be developed for actual site situations. (CSU) (Degree Credit)

## HORT 920 F Advanced CAD Applications in Horticulture (3)

Letter Grade or Pass/No Pass option
Prerequisite: HORT 219 F CAD
Two hours lecture and three hours lab per week. This course covers the use of LandCADD computer aided drafting and design program in the creation of 2-D and 3-D landscape and irrigation designs. It also includes the use of customized plant and irrigation symbols, intelligent drawing blocks, cross-referenced drawings and paper space/model space. Detail drawings, complex irrigation and grading plans will be developed for actual site situations. Presentation 2-dimensional and 3-dimensional rendered drawings and animated walk-throughs are developed using advanced tools in LandCADD. Course may be taken twice for credit. (Degree Credit)

## Humanities (HUM)

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## Humanities Courses

## HUM 170 F Education: Tutoring Individuals and Small Groups (2)

This course provides preparation and training for successful tutoring in multiple subject areas. Instruction will focus on tutoring principles, specific tutoring techniques, study skills, communication skills, tutoring the ESL student, cultural differences, learning styles and learning disabilities. Completion of 25 hours of field experience is required. This course is strongly recommended for both students who wish to tutor in the Fullerton College Tutoring Center and students interested in careers in education. (CSU) (UC) (Degree Credit)

## Interior Design (IDES)

Technology and Engineering Division
Office: Bldg 700
714.992.7561

Dean: Scott McKenzie
Website: techneng.fullcoll.edu
Commercial Design Certificate
Interior Design Assistant: Associate in Science Degree
Interior Merchandising: Level I Certificate
Residential Design Certificate

## Interior Design Courses

Fullerton College offers an interdisciplinary Interior Design curriculum partnership in conjunction with three other Southern California Community Colleges: Mount San Antonio College, Orange Coast College, and Saddleback College. (Long Beach City College status is pending at the time of this printing.) This regional program provides multi-level, accredited courses, which prepare students with competencies required to enter the Interior Design profession.

## IDES 085 F Kitchen and Bath Design (2)

Prerequisite: IDES 110 F
One hour lecture and three hours lab per week. This course covers functional planning for the kitchen and bath. The emphasis is on layout, materials, appliances and fixtures, lighting and electrical planning, design character, construction and plumbing. This course also covers trends and career options. (Degree Credit)

## IDES 100 F Fundamentals of Interior Design (3)

Three hours lecture per week. This course covers the application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. The selection of all materials and products used in interior environments will be emphasized for the functional and aesthetic quality. (CSU) (Degree Credit)

## IDES 105 F Interior Design Studio I (2)

One hour lecture, three hours lab per week. This studio course is designed to apply concepts and theories presented in the lecture course, IDES 100 F Fundamentals of Interior Design. It is recommended that this course be taken concurrently with the lecture class. Emphasis is placed on design process in developing solutions for design projects. (CSU) (Degree Credit)

IDES 110 F Beginning Drafting for Interior Design (3)
Two hours lecture, three hours lab per week. Applications of methods and theory used for architectural drawings, including basic graphics and projections for design and working drawings. (CSU) (Degree Credit)

## IDES 120 F Interior Design Careers (2)

Two hours lecture per week. A survey of the Interior Design profession, industry, related occupations and work sites. The course will emphasize personal, educational and professional qualifications required for entry into the Interior Design profession. (CSU) (Degree Credit).

## IDES 130 F Applied Color and Design Theory (4)

Three hours lecture and three hours lab per week. This course covers Basic Design theory and application. Utilization of tools, materials, and equipment to develop technical skills applicable to interior, architectural and other related fields of design. Exploration of cultural heritage and psychological implication of design. (CSU) (Degree Credit)

## IDES 147 F Office Planning (3)

## Prerequisite: IDES 110 F or ARCH 100 F

Two hours lecture, three hours lab per week. This course will cover large and small office planning including client improvement practices and the use of modular systems. Also covered are code requirements and the use of electrical, plumbing and mechanical systems. (CSU) (Degree Credit)

## IDES 150 F Interior Materials and Products (4)

Four hours lecture per week. This course will cover methods of analysis, application and evaluation of products and materials used in Interior Design. Includes interior textiles, furnishings and finish materials and products. (CSU) (Degree Credit)

## IDES 170 F Space Planning (3)

## Prerequisite: IDES 110 F or ARCH 100 F

Two hours lecture and three hours lab per week. The application of programming, theory and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized in the studio. (CSU) (Degree Credit)

## IDES 180 F History of Interior Architecture and Furnishings I (3)

Three hours lecture per week. The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage from antiquity through the 19th century in France. Emphasis is placed on style development as it relates to social, economic and political influences. (CSU) (Degree Credit) AA GE

## IDES 190 F History of Interior Architecture and Furnishings II (3)

Three hours lecture per week. The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage. This course begins with the sixteenth century England and America and analyzes the influences and changes in design to the present. Emphasis is placed on style development as it relates to social, economic and political forces. (CSU) (Degree Credit)

## IDES 200 F Interior Illustration (2)

## Prerequisites: IDES 100 F and IDES 130 F

One hour lecture, three hours lab per week. This course covers the application of the methods, techniques and tools used for illustrating interior spaces and products. (CSU) (Degree Credit)

CDES 205 F Creating Environments for Young Children (2) Two hours lecture per week. This course is designed for adults interested in planning inclusive environments for children. It is valuable for administrators, interior designers, and teachers. Students develop ways of examining the environmental settings for children and evaluate the use of physical space and the selection of activity settings in terms of program goals. The study of environmental planning to enrich childrens' experience is emphasized. Students design both indoor and outdoor environments for a group setting. (CSU) (Degree Credit)

IDES 210 F Fundamentals of Lighting (3)
Three hours lecture per week. The fundamentals of lighting, design, theory and application including the history and vocabulary of lighting; how light affects color and vision, incandescent and fluorescent lamps, lighting techniques for interior designers, codes and energy efficient lighting practices. (CSU) (Degree Credit)

## IDES 215 F Interior Design Studio II (2)

Prerequisite: IDES 100 F, IDES 130 F and IDES 170 F
One hour lecture and three hours lab per week. Develop, analyze and apply design concepts to interior environments. Universal design, "green design," space planning, lighting systems, interior components, architectural elements and specification writing will be integrated into research projects emphasizing a problem solving approach. (CSU) (Degree Credit)

## IDES 230 F Business and Professional Practice (3)

Three hours lecture per week. The business and professional management of an interior design practice including legal issues, project management and business practices. (CSU) (Degree Credit)

## IDES 240 F Interior Design Internship (2-3)

One hour lecture per week, plus 75 hours of paid or 60 hours unpaid work experience for the first two units of credit. An additional 75 hours of paid or 60 hours of unpaid work experience is required for a third unit. Credit is earned through supervised employment related to classroom instruction in Interior Design. Course may be taken twice for credit. (CSU) (Degree Credit)

## IDES 248AF Restaurant/Hotel Design (2)

Prerequisite: IDES 215 F, IDES 110 F or ARCH 100 F
One hour lecture and three hours lab per week. This course covers the principles of space planning applied to the unique problems of the hospitality industry including design, systems and specifications. (CSU) (Degree Credit)

## IDES 248BF Medical/Health Design (2)

Prerequisite: IDES 215 F, IDES 110 F or ARCH 100 F
One hour lecture and three hours lab per week. This course covers the principles of space planning applied to the unique problems of the medical field including design, systems and specifications. (CSU) (Degree Credit)

## IDES 249AF Studies in International Architecture and Design (1)

A total of 18 hours of lecture and guided field trips. This course includes pre-trip lectures and guided trips during travel tour. The course content will vary according to area studied, but will include emphasis on architecture and interior design of specific European countries or areas on the American continent. (CSU) (Degree Credit)

## IDES 249BF Studies in International Architecture and Design (2)

A total of 36 hours of lecture and guided field trips. This course includes pre-trip lectures and guided trips during travel tour. The course content will vary according to area studied, but will include emphasis of architecture and interior design of specific European countries or areas on the American continent. (CSU) (Degree Credit)

## IDES 249CF Studies in International Architecture and Design (3)

A total of 54 hours of lecture and guided field trips. This course includes pre-trip lectures and guided trips during travel tour. The course content will vary according to area studied, but will include emphasis on architecture and interior design of specific European countries or areas on the American continent. (CSU) (Degree Credit)

## IDES 265 F Interior Design Studio III (2)

## Prerequisites: IDES 215 F, IDES 110 F

One hour lecture and three hours lab per week. An emphasis is placed on total space planning with advanced problems in interior environments. The analysis of problems allows for the application of the design process, of planning, materials, codes and specialized equipment. (CSU) (Degree credit)

## Italian (ITAL)

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## Italian Courses

## ITAL 101 F Elementary Italian I (5)

Letter Grade or Pass/No Pass option
Five hours lecture per week plus one arranged lab hour per week. The course focuses on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Italian-speaking countries. This course is conducted primarily in Italian. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## ITAL 102 F Elementary Italian II (5)

Letter Grade or Pass/No Pass option
Prerequisite: ITAL 101 F with a grade of " $C$ " or better or one year of high school Italian with a grade of " $C$ " or better
Five hours lecture per week plus one arranged lab hour per week. The course continues to focus on the four major skills of language learning listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Italian-speaking countries. This course is conducted primarily in Italian. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## ITAL 203 F Intermediate Italian III (4)

Letter Grade or Pass/No Pass option
Prerequisite: ITAL 102 F with a grade of " $C$ " or better or two years of high school Italian with a grade of "C" or better
Four hours lecture per week. Continuation of ITAL 102 F. Includes development of listening and reading comprehension, speaking and writing Italian based on cultural and literary materials. This course emphasizes oral communication and provides an expanded review of key grammatical concepts. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

ITAL 204 F Intermediate Italian IV (4)
Letter Grade or Pass/No Pass option
Prerequisite: ITAL 203 F with a grade of "C" or better or three years of high school Italian with a grade of " $C$ " or better
Four hours lecture per week. Continuation of ITAL 203 F. The course emphasizes the acquisition of more advanced listening, speaking, reading, and writing. Students will be introduced to the further elements of culture, history and geography of Italy through lectures, slides, films, dialogues and reading assignments. Instruction will be in Italian. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

# Japanese (JAPN) 

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## Japanese Courses

## JAPN 101 F Elementary Japanese I (5)

Letter Grade or Pass/No Pass option
Five hours lecture plus one arranged lab hour per week. The course focuses on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Japanese-speaking countries. This course is conducted primarily in Japanese. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## JAPN 102 F Elementary Japanese II (5)

Letter Grade or Pass/No Pass option
Prerequisite: JAPN 101 F with a grade of "C" or better or one year of high school Japanese with a grade of " $C$ " or better
Five hours lecture per week plus one arranged lab hour per week. The course continues to focus on the four major skills of language learning listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Japanese-speaking countries. This course is conducted primarily in Japanese. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## JAPN 203 F Intermediate Japanese III (4)

Letter Grade or Pass/No Pass option
Prerequisite: JAPN 102 F with a grade of " $C$ " or better or two years of high school Japanese with a grade of "C" or better
Four hours lecture per week. The course includes development of listening and reading comprehension, speaking and writing Japanese based on cultural and literary materials. This course emphasizes oral communication and provides an expanded review of key grammatical concepts. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## JAPN 204 F Intermediate Japanese IV (4)

Letter Grade or Pass/No Pass option
Four hours lecture per week. This course continues the development of listening and reading comprehension, speaking and writing Japanese based on cultural and literary materials. This course emphasizes intermediate-advanced oral communication, provides an extended review of key grammatical concepts and vocabulary, and fosters understanding and appreciation of Japanese culture by introducing literary readings. (CSU) (UC) (Degree Credit)

# Journalism (JOUR) 

Technology and Engineering Division
Office: Bldg 700, Room 714
714.992.7575

Dean: Scott McKenzie
Website: communications.fullcoll.edu

Communications: Journalism Associate in Arts Degree Advertising Certificate<br>Journalism Certificate<br>Public Relations Certificate

## Journalism Courses


#### Abstract

JOUR 101 F Reporting and Writing (3) Prerequisite: ENGL 060 F or ESL 186 F, both with a grade of "C" or better or recommended score on English placement test Three hours seminar and lecture plus one hour lab per week. This class provides an introduction to the skills and practices of news reporting as applied to the various communications media with emphasis on the newspaper. Stress is placed on various story types - news, feature, editorial, online, column sports, and press release. (CSU) (UC) (Degree Credit) AA GE


## JOUR 102 F Advanced Reporting and Writing (3)

Prerequisite: JOUR 101 F
Three hours seminar/lecture per week plus one hour lab per week. The study and practice of advanced reporting and newsgathering techniques are the main focus stressing interviewing and research skills, investigative, special assignment and online reporting. (CSU) (Degree Credit)

## JOUR 108 F Feature Writing (3)

Three hours seminar/lecture per week. Principles of freelance writing for magazines, newspapers, and other specialized periodicals are introduced. Students receive instruction on query writing, marketing and manuscript preparation and submission. Copyright and libel laws will be included. Both peer and professional evaluations will be utilized. Course may be taken four times for credit. (CSU) (Degree Credit)

## JOUR 110 F Mass Media Survey (3)

Three hours lecture per week. This class provides an introduction to the mass communications media and a critical consideration of their roles in our society. Mass media under consideration in this course will include: books, newspapers, magazines, movies, radio, television, film and the Internet. (CSU) (UC) (Degree Credit) AA GE, CSU GE.

## JOUR 135 F Magazine Production (3)

Two hours lecture and three hours lab per week. All aspects of the magazine publishing industry will be covered. A soft cover magazine is created by the class. Emphasis is placed on writing longer, in-depth magazine articles, capturing feature photographs and packaging all elements together. Students will also publish stories and photos for the online publication - fctorch.net. Course may be taken four times for credit. (CSU) (Degree Credit)

JOUR 140 F Public Relations and Publicity (3)
Three hours lecture per week. Students will study and practice the techniques and responsibilities of corporate, agency, and non-profit public relations with special attention to publicity writing and public relations campaign development. (CSU) (Degree Credit)

## JOUR 196 F Communications Seminar (.5-4)

Lecture and lab hours will vary according to the nature of the seminar. Communications seminars are courses designed to expose the students to up-to-date equipment, methods, techniques, and materials. These courses offer the student opportunity for specialized training in greater depth than can be offered in a general course. These courses will vary from semester to semester depending on student interest, new developments in industry, and need for specialized training. Communications seminars will be offered in photography, journalism, and radio/television. See class schedule for current offerings. Students may enroll in up to a maximum of four semesters. (CSU) (Degree Credit)

## JOUR 199 F Journalism Independent Study (1-3)

Prerequisite: JOUR 101 F with a grade of "C" or better
One hour lecture or scheduled conference or three hours independent lab research per week per unit of credit. This course is designed for advanced students who wish to increase their knowledge of journalism and communications through individual study. Independent lab research problems with staff supervision may be approved. Project with written report or outside reading with written report is required. Students may enroll up to a maximum of four semesters. (CSU) (UC review required) (Degree Credit)

## JOUR 210 F Multimedia Reporting (3)

Two hours lecture and three hours lab per week. This course focuses on media article writing and digital storytelling. Students will develop multimedia news reporting and writing techniques with an emphasis on the Web. Students research, write, and edit articles as they practice the skills of gathering information from a variety of sources. Students synthesize, edit and prepare stories for dissemination online. Students will learn the basics of visual journalism storytelling, including basic elements of shooting videotape, recording audio, editing video and audio tape, and creating news websites. A culminating project will demonstrate knowledge of reporting and writing for print and broadcast on the web. (CSU) (Degree Credit)

## JOUR 219 F Photojournalism (3)

Two hours lecture and three hours lab per week. This course covers the basics of digital photography for publication both print and online such as news, advertising, feature, sports, lifestyle, photo essay, and documentary applications. Students will work with the student publications on campus. (CSU) (Degree Credit)

## JOUR 225 F Newspaper Production (3)

Two hours lecture and three hours lab per week. This course includes the following areas of study: reporting, editing, page design, photojournalism, editing and proofreading. Online reporting and publishing techniques are also studied and practiced in the production of The Hornet newspaper and Online Hornet. Course may be taken four times for credit. (CSU) (Degree Credit)

## JOUR 227 F Newspaper Management, Makeup and Editing (3)

Two hours lecture and three hours lab per week. This course includes the principles and practices of copy editing, headline and caption writing. Photo evaluation, page makeup and editorial judgment are incorporated. Students will develop supervising abilities in a newspaper production setting. Course may be taken four times for credit. (CSU) (Degree Credit)

## JOUR 290 F Internship in Journalism/ Public Relations (2-4)

One hour lecture per week and five hours supervised employment or unpaid internship per week in journalism or public relations. An additional five hours per week of supervised employment or unpaid internship for each additional unit of credit. This course offers career development opportunities for students and industry professional who need to strengthen or broaden their skills to retain their current position or wish to advance in their current careers. Students obtain vocational learning opportunities through employment/internships at newspapers, magazines, public relations firms, companies requiring journalism and public relations experts, radio, television, and cable stations. Course may be taken four times for credit. (CSU) (Degree Credit)

## Library Technology (LIB)

## Library Division

Office: Bldg 800 (LLRC)
714.992.7039

Dean: Jackie Boll
Website: library.fullcoll.edu

## Library Courses

## LIB 100 F Introduction to Research (1)

One hour lecture per week. This class is designed to introduce students to traditional and electronic library research tools and resources including the Internet. Students learn how to develop research strategies that will enable them to locate/retrieve, analyze, evaluate, and cite appropriate resources on a given topic. Each student will compile and prepare a written bibliography of relevant sources on a topic. The class is of special value to those students intending to transfer to a four-year institution. (CSU) (UC) (Degree Credit)

## LIB 100HF Honors Introduction to Research (1)

One hour lecture per week. This is an enhanced course designed to introduce honors students to traditional and electronic library research tools and resources including the Internet. Students will develop critical thinking skills and learn research strategies that will enable them to locate/retrieve, analyze, evaluate, and cite appropriate resources on a given topic. Each student will compile and prepare a written bibliography of relevant sources on a topic. The class is of special value to those students intending to transfer to a four-year institution. (CSU) (UC) (Degree Credit)

## LIB 103 F Research in the 21st Century (2)

One and one-half hours lecture and one and one-half hours lab per week. Students will examine the core concepts of information competency for locating, organizing, evaluating and presenting information to conduct academic and personal research. The impact of the Internet on society and academia will be analyzed with special emphasis on copyright and plagiarism issues. Students will identify and analyze the ethical, legal and socio-political implications of information. (CSU)

# Machine Technology (MACH) 

Technology and Engineering Division
Office: Bldg 900
714.992.7586

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

CNC Operator Certificate<br>Computer Numerical Control (CNC) Certificate<br>Machine Technology — Level I Certificate<br>Machine Technology — Level II Certificate<br>Mastercam Certificate<br>Surfcam Certificate

## Machine Technology Courses

## MACH 010 F Machining Skills Lab (.5-2)

Open Entry/Open Exit
Pass/No Pass only
Twenty-seven hours lab for each .5 unit of credit. This course provides students the opportunity to further develop their skills in machining set up, operation, and programming tasks. One-half unit of credit will be given for each 24 hours of lab participation. This course may be taken a total of four times.

## MACH 040 F CNC Wire EDM: Programming and

 Operation (3)Two and one-half hours lecture and one and one-half hours lab per week. This course provides the student with instruction in the concepts and practices associated with the set up, operation, and programming of CNC Wire EDMs (Electrical Discharge Machines). Emphasis will be placed on using a wire EDM to cut in a two axis environment. Students will prepare and cut parts on the machine during lab time. (Degree Credit)

## MACH 043 F Advanced Topics in Machine Technology (.5-3)



Zero to three hours lecture, zero to nine hours lab per week. This course is designed to meet the needs of the Machine Tool industry that requires advanced training, continuing education and provide professional growth for persons employed in the Machine Tool industry. This course will be offered in modules of advanced topics. Unit credit may range from .5 to 3 units per module. Consult the class schedule to verify topic areas and credit offered for each topic.

MACH 050 F CNC Programming Using Mastercam (3)
Two and one-half hours lecture and one and one-half hours lab per week. This course provides the student with instruction in the concepts and practices associated with using Mastercam software to prepare CNC machine programs for both mills and lathes. Students will process programs that demonstrate the features and functions of the software. (Degree Credit)

## MACH 052 F Advanced CNC Programming Using

## Mastercam (3)

Advisory: MACH 050 F CNC Programming or industry experience using Mastercam in a 2-D environment
Two and one-half hours lecture and one and one-half hour lab per week. This course provides the student with advanced instruction in the concepts and practices associated with using Mastercam software to prepare CNC machine programs for both mills and lathes. Students will build upon prior experience with Mastercam to develop 3-D wire frame models, surface models, derived models, and composite surface models. Students will process programs that demonstrate the features and functions of the software. (Degree Credit)

## MACH 060 F CNC Programming using SURFCAM (3)

Two and one-half hours lecture and one and one-half hours lab per week. This course provides the student with instruction in the concepts and practices associated with using SURFCAM software to prepare CNC machine programs for both mills and lathes. Students will process programs that demonstrate the features and functions of the software. (Degree Credit)

## MACH 062 F Advanced CNC Programming Using SURFCAM (3)

Two and one-half hours lecture and one and one-half hours lab per week. This course provides the student with advanced instruction in the concepts and practices associated with using SURFCAM software to prepare CNC machine programs for both mills and lathes. Students will build upon prior experience using SURFCAM to develop 3-D wire frame models, surface models, derived models, and composite surface models. Students will process programs that demonstrate the features and functions of the software. (Degree Credit)

## MACH 086 F CNC Machine Set-Up and Operation (3)

Two and one-half hours lecture and one and one-half hour lab per week. This is an introductory course designed to teach the fundamental skills related to the setup and operation of computer numerically controlled machine tools. Safety, tool selection, machine and controller functions, calculation and input of offsets, are also included. (Degree Credit)

## MACH 087 F CNC Parts Programming (3)

Two and one-half hours lecture and one and one-half hours lab per week. This course covers manual programming techniques, calculations, and program development for CNC mills, machining centers, and lathes. Up to three axis of control will be discussed. Students will test part programs on CNC machines during lab hours. (Degree Credit)

## MACH 088 F Advanced CNC Machining (3)

Advisory: MACH 086 F or industry experience operating both CNC lathes and mills and completion of MACH 087 F
Two and one-half hours lecture and one and one-half hour lab per week. This course provides the student with advanced instruction and practice in the concepts and practices associated with the successful programming and set up of CNC mills and lathes. Students will build upon prior experience with CNC machines to complete finished parts on CNC mills and lathes having various control types. Students will run programs and practice set-up processed during lab time. (Degree Credit)

## MACH 090 F Multiple Axis CNC Set and Operation (3)

Prerequisite: MACH 086 F, MACH 087 F, and MACH 088 F, all with a grade of " $C$ " or better
Two and one-half hours lecture and one and one-half hours lab per week. This course provides the student with instruction associated with the successful programming and set up of CNC mills with four and five axis of control. Students will build upon prior experience with CNC machines to complete finished parts on CNC mills with four and five axis of control. Students will run programs and practice set-up processes during lab time. (Degree Credit)

## MACH 091 F Introduction to Machine Tools (5)

Three hours lecture and six hours lab per week. This is an introductory course designed to teach the fundamental skills used in the set up and operation of the engine lathe, milling machine, and surface grinder. Safety, shop mathematics, basic blueprint reading, cutting tool use and theory, selection of cutting speeds and feeds, and measurement techniques will also be included. (Degree Credit)

## MACH 092 F Intermediate Machine Tools (5)

Prerequisite: MACH 091 F or MACH 116 F (both semesters) with a grade of " $C$ " or better
Three hours lecture and six hours lab per week. This intermediate level course is designed to advance the basic set up and operational skills developed in an introductory level machine tools course. Work will be performed on engine lathe, both vertical and horizontal milling machines, surface grinder, and sawing equipment. Students will also advance their skills in the use of various measuring tools, blueprint reading, shop mathematics, and general machining techniques. (Degree Credit)

## MACH 093 F Advanced Machine Tools (5)

Prerequisite: MACH 092 F with a grade of " $C$ " or better
Three hours lecture and six hours lab per week. This advanced level course is designed to further the set up and operational skills developed in an intermediate level machine tools course. Work will be performed on engine lathes, both vertical and horizontal milling machines, surface grinders, and sawing equipment. Students will also advance their skills in the use of various measuring tools, blueprint reading, shop mathematics, and general machining techniques. Computer numerical control (CNC) machines will also be utilized to complete lab assignments. This course may be taken twice for credit. (Degree Credit)

MACH 116 F Machine Tools (2)
One hour lecture and three hours lab per week. This course is for students majoring in mechanical drawing, industrial arts, engineering, and for students who wish to familiarize themselves with the machine tools of industry. Fundamentals of the machinist trade are taught. Second semester work includes advanced work in the use of lathes, grinders, milling machines and measuring instruments. Methods planning for efficient machining is emphasized. Course may be taken twice for credit. (CSU) (Degree Credit)

# Marketing Management (MKT) 

Business Division

Office: Bldg 300
714.992.7032

Dean: Ann Hovey
Website: http://bizdiv.fullcoll.edu

Marketing Management - Associate in Science Degree Marketing Management Certificate

## Marketing Management Courses

## MKT 090 F Current Issues in Marketing (.5-3)

Variable lecture and/or lab hours per week. This course offers timely marketing-related topics. Emphasis is placed on current changes in the marketplace and real-world marketing problems and solutions. Unit credit may range from $.5-3$ units in any given semester. Consult the class schedule to verify specific topic area and credit for a particular semester. May be taken for credit four times.

## MKT 100 F Introduction to Marketing (3)

Three hours lecture per week. This course is an introduction to marketing and e-marketing principles including market analysis, consumer behavior, marketing mix strategies and new technology. Current issues pertaining to advertising, consumer research, international marketing and marketing on the Internet are covered. Class activities include field projects, development of a marketing plan portfolio, and hands-on computer simulations. This course lays the foundation for more advanced marketing and related subject areas. (CSU) (Degree Credit)

## MKT 103 F Principles of Advertising (3)

Three hours lecture per week. This course covers the role historical, economic and social aspects of advertising. The roles of the advertising agency, the development of creative advertising copy, advertising budgets, analysis of successful advertising campaigns and the creation of advertisements for the six types of media (TV, radio, magazines, newspapers, outdoor and direct mail) are discussed. (CSU) (Degree Credit)

## MKT 151 F Internet Marketing (2)

One and one-half hour lecture and one and one-half hour lab per week. This course will introduce students to marketing communications on the Internet. Emphasis will be placed on developing World Wide Web marketing skills, examining business resources on the Internet, and creating an Internet-focused marketing plan outline. Students will learn how to use the Internet for customer contact, customer service, order taking, and marketing research. (CSU) (Degree Credit)

## MKT 152 F Internet Advertising (2)

One and one-half hour lecture and one and one-half hour lab per week. This course will introduce students to advertising and promotional strategies using the Internet. Topics to be covered include new technologies in online advertising, buying and selling banner ads, direct marketing and sales promotion on the Internet, targeting and Web measurement techniques, and important legal issues. Students will develop an Internet promotional plan portfolio. (CSU) (Degree Credit)

## MKT 153 F Customer Service on the Internet (2)

One and one-half hour lecture and one and one-half hour lab per week. This course introduces the principles of relationship marketing and serving customers on the Internet. Topics include determining customer expectations; measuring success; using the Web site, e-mail, and extranets to increase customer satisfaction; and creating a relationship-based Web site. Students will develop an Internet customer service plan. (CSU) (Degree Credit)

## MKT 201 F Small Business Promotions (3)

Three hours lecture per week. This course focuses on the techniques used to promote a small business and develop effective marketing strategies. Its emphasis is on creating a marketing plan and devising affordable ways to communicate with customers through local media, sales promotion, the Internet, publicity, brochures, direct mail and other methods. (CSU) (Degree Credit)

## MKT 205 F Multicultural Markets in U.S. (3)

Three hours lecture per week. This course emphasizes the fundamentals of personal selling and the new practices needed to succeed in today's information economy. Topics include understanding buyer behavior, building trust, communication and negotiation sills, and the strategic selling process. The course will also cover the impact of electronic commerce, sales strategies used to build global relationships, ethical and legal considerations in selling, and a survey of customer relationship management technology. (CSU) (Degree Credit) MULT CULT REQ

## MKT 208 F Principles of Selling (3)

Three hours lecture per week. Subject matter includes opportunities in the sales field, the steps of the sale from the approach through the closing, the art of negotiation, telephone selling, effective communication, and building win-win relationships with customers. Also included are professional specialty selling, buying motives, product knowledge, all phases of the selling process, and the many and varied career opportunities in the sales field. (CSU) (Degree Credit)

## BUS 180 F Small Business Management (3)

Three hours lecture per week. This course studies various small business enterprises including retail, wholesale, manufacturing, service, and home-based business. Factors in business success and advantages and disadvantages of business ownership are analyzed. This course covers the problems encountered in organizing and operating a small business, including financial sources, accounting information, marketing and other related information. (CSU) (Degree Credit)

## Mathematics (MATH)

Mathematics and Computer Science Division<br>Office: Bldg 600, Room 613-02<br>714.992.7041<br>Dean: Mark Greenhalgh<br>Website: math.fullcoll.edu<br>Associate in Arts Degree<br>\section*{Mathematics Courses}

## MATH 004 F Basic Mathematics I (2)

Pass/No Pass only


Two hours lecture and one-half hour arranged per week. This course is an intensive review of the fundamentals of arithmetic. The course includes: arithmetic operations with whole numbers and fractions, rounding and estimation, and applied problems. Calculators will not be permitted.

## MATH 006 F Basic Mathematics II (2)

Pass/No Pass only Prerequisite: MATH 004 F with a grade of "Pass"
Two hours lecture and one-half hour arranged per week. This course is an intensive review of the fundamentals of arithmetic. The course includes: arithmetic operations and applied problems with decimals, rounding, estimation, ratios, problem solving with proportions, percent and applications, the arithmetic of denominate numbers, introduction to the metric system, and measurement geometry. Calculators will be required for selected topics.

> Effective Fall 2009, MATH 010 F (4 units) has been split into MATH 004 F (2 units) and MATH 006 F (2 units)

## MATH 010 F Basic Mathematics (4)

Four hours lecture and one hour arranged per week. This course is an intensive review of the fundamentals of arithmetic. The course includes: operations of arithmetic with whole numbers, fractions, decimals, percent, estimation, equations and applied problems, introduction to the metric system, and the arithmetic of denominate numbers.

## MATH 015 F Pre-Algebra (4)

Prerequisite: MATH 004 F and MATH 006 F with a grade of "Pass" or MATH 010 F with a grade of "C" or better, or math skills clearance
Four hours lecture and one hour arranged per week. This course includes: operations on integers, fractions, mixed numbers and decimals, ratio, proportion and percentages, working with variable expressions, interpretation of statistical graphs, measurement and geometry, and an introduction to polynomials and graphing. Calculators will be required for selected topics.

MATH 020 F Elementary Algebra (4)
Prerequisite: MATH 015 F with a grade of " $C$ " or better or math skills clearance
Four hours lecture and one hour arranged per week. This course includes the properties of real numbers, factoring, exponents and radicals, solving and graphing linear equations, polynomials and rational algebraic expressions, and linear systems of equations. Calculators will be required for selected topics.

## MATH 030 F Plane Geometry (4)

Prerequisite: MATH O20 F with a grade of "C" or better or math skills clearance
Four hours lecture and one hour arranged per week. This course is an introduction to Euclidean geometry. It includes theorems and proofs, sets, congruent and similar polygons, circles, geometric constructions, areas, volumes, geometric loci, elementary logic, and deductive reasoning. Calculators may be required for selected topics.

## MATH 040 F Intermediate Algebra (4)

Prerequisite: MATH 020 F with a grade of "C" or better or math skills clearance
Four hours lecture and one hour arranged per week. This course includes products and factoring, exponents and radicals, fractions, functions and graphs, linear and quadratic equations, linear inequalities, logarithms, and related topics at an intermediate level. Calculators will be used for selected topics. (Degree Credit) AA GE

## MATH 100 F Liberal Arts Mathematics (3)

Prerequisite: MATH 040 F with a grade of "C" or better or math skills clearance
Three hours lecture per week. This is a survey course with selected topics from the history and development of mathematics, patterns and inductive reasoning, set theory and deductive reasoning, the real number system, algebra, geometry, probability, statistics, and problem solving. It is designed for students majoring in liberal arts, education or communication. Calculators or computers may be used for selected topics. (CSU) (UC) (Degree Credit) AA GE, CSU GE IGETC

## MATH 120 F Introductory Probability and Statistics (4)

Prerequisite: MATH 040 F with a grade of " $C$ " or better or math skills clearance
Four hours lecture per week. This course covers descriptive statistics, elementary probability theory and inferential statistics. Topics covered include: summarizing data in tables and graphs, computation of descriptive statistics, sample spaces, classical probability theory, rules of probaility, probability distributions, confidence intervals for population parameters, hypothesis testing, correlation and regression and ChiSquare Distribution with applications. Scientific and/or graphing calculators will be used extensively throughout the course. Computers, utilizing MINITAB will be used for various topics. Students who receive credit for MATH 120 F may not receive credit for SOSC 120 F. (CSU) (UC Credit Limitation: MATH 120 F or MATH 120HF and PSY 161 F combined, maximum one course) (Degree Credit) AA GE, CSU GE, IGETC

## MATH 120HF Honors Introductory Probability and

## Statistics (4)

Prerequisite: MATH 040 F with a grade of "C" or better or math skills clearance
Four hours lecture per week. An enriched approach designed for honors students. This course covers descriptive statistics, elementary probability theory and inferential statistics. Topics covered include: summarizing data in tables and graphs, computation of descriptive statistics, sample spaces, classical probability theory, rules of probability, probability distributions, confidence intervals for population parameters, hypothesis testing, correlation and regression and Chi-Square Distribution with applications. Scientific and/or graphic calculators will be used extensively throughout the course. Computers, utilizing MINITAB will be used for various topics. Students who receive credit for MATH 120HF may not receive credit for SOSC 120 F. (CSU) (UC Credit Limitation: MATH 120 F or MATH 120HF and PSY 161 F combined, maximum one course) (Degree Credit) AA GE, CSU GE, IGETC

## MATH 129 F College Algebra for Business Calculus (4)

Prerequisite: MATH 040 F with a grade of ' $C$ ' or better or math skills clearance
Four hours lecture per week. This course includes a review of basic topics from intermediate algebra, equations and inequalities, functions and graphing including exponential and logarithmic functions, building mathematical models in business and economics, systems of equations and matrices, financial applications of sequences and series, and an introduction to spreadsheets and/or graphing software. The course is designed for students planning to enroll in MATH 130 F. A scientific calculator will be required; a graphing calculator may be required. (This course does not meet requirements in the Business Division and will not substitute for BUS 151 F. See Business and Computer Information Systems Division for Business requirements.) (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE

## MATH 130 F Calculus for Business (4)

Prerequisite: MATH 129 F with a grade of "C" or better or math skills clearance
Four hours lecture per week. This course includes fundamentals of analytic geometry and calculus; differential calculus, integral calculus, and selected applications of calculus; functions and managerial planning and their use in economics and business. A scientific calculator will be required; a graphing calculator may be required. Computer applications may be included. (CSU) (UC credit Limitation; MATH 130 F combined with MATH 150AF; maximum credit, one course) (Degree Credit) AA GE, CSU GE, IGETC

## MATH 141 F College Algebra (4)

Prerequisite: MATH 040 F and MATH 030 F with grades of " C " or better or math skills clearance. This course may be taken prior to or concurrently with MATH 142 F. Both MATH 141 F and MATH 142 F are required for enrollment in MATH 150AF.
Four hours lecture and one hour arranged per week. This is a onesemester course designed to prepare students for the study of calculus. The topics to be covered include review of the fundamentals of algebra, relations, functions, solutions of first- and second-degree equations and inequalities, systems of equations, matrices and determinants, binomial theorem, mathematical induction, polynomial functions, exponential and logarithmic functions, analytic geometry and conic sections, geometric and arithmetical sequences and series, and miscellaneous topics. Graphing calculators will be incorporated. (CSU) (UC Credit Limitation; MATH 141 F and MATH 129 F; maximum combined credit, one course) (Degree Credit) AA GE, CSU GE, IGETC

## MATH 142 F Trigonometry (4)

Prerequisite: MATH 040 F and MATH 030 F with grades of "C" or better or math skills clearance. This course may be taken concurrently with MATH 141 F . Both MATH 141 F and MATH 142 F are required for enrollment in MATH 150AF.
Four hours lecture and one hour arranged per week. This is a onesemester course in trigonometry designed to prepare students for the study of calculus. The topics to be covered include the following: algebraic skills, measurements of angles, trigonometric functions and inverse trigonometric functions, trigonometric equations and identities, graphing of trigonometric functions, solutions of triangles, applications, complex numbers, polar coordinates, DeMoivre's theorem. Calculators will be used for selected topics. (CSU) (Degree Credit) AA GE, CSU GE

## MATH 150AF Calculus I (4)

Prerequisite: MATH 141 F and MATH 142 F or equivalent with a grade of "C" or better or math skills clearance
Four hours lecture per week. This is a beginning calculus course covering limits and continuity, differentiation of algebraic, transcendental and inverse functions, applications of differentiation, antiderivatives and indefinite integrals, and the definite integral. Graphing calculators will be used for selected topics. (Degree Credit) (CSU) (UC Credit Limitation; MATH 150AF combined with MATH 130 F, maximum credit one course.) AA GE, CSU GE, IGETC

## MATH 150BF Calculus II (4)

Prerequisite: MATH 150AF or equivalent with a grade of " $C$ " or better Four hours lecture per week. This is one of two courses covering differential equations, applications of integration, integration techniques, L'Hopital's Rule, improper integrals, sequences and series, conics, parametric equations, and polar coordinates. Graphing calculators will be used for selected topics. (Degree Credit) (CSU) (UC Credit Limitation) AA GE, CSU GE, IGETC

## MATH 171 F Discrete Mathematics (4)

Prerequisite: MATH 141 F and MATH 142 F, both with a grade of " $C$ " or better, or math skills clearance
Four lecture hours per week. This is the first of two semesters of fundamental discrete mathematical concepts needed in computer related disciplines. The topics covered include logic, truth tables, Boolean algebra, logic circuits, elementary set theory, functions, relations, proof techniques, combinatorics, elementary probability and recurrence relations. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## MATH 172 F Graph Theory and Linear Algebra (4)

Corequisite: MATH $171 F$ with a grade of " $C$ " or better
Four hours lecture per week. This is one of two courses in fundamental discrete mathematical concepts and techniques needed in computer related disciplines. Topics include the theory of graphs, trees, finite state machines, and linear algebra including matrix operations, eigenvalues, vector spaces, linear transformations, and inner product spaces. (CSU) (UC) (Degree credit) AA GE, CSU GE, IGETC

## MATH 203 F Mathematics for Future Elementary

## Teachers (3)

Prerequisite: MATH 100 F and MATH 030 F, or equivalent, with a grade of "C" or better
Three hours lecture per week. This course is designed for prospective elementary teachers. Topics covered include: problem-solving techniques, whole numbers and numeration, set theory, elementary number theory, integers, rational numbers, ratios, proportions, decimals, and percents. The course includes instruction delivery design and activity-based explorations. (Degree Credit) (CSU) AA GE

## MATH 250AF Multivariable Calculus (4)

Prerequisite: MATH 150BF with a grade of "C" or better
Four hours lecture per week. This is a third semester course in calculus covering conic sections, solid analytic geometry, vectors in three dimensions, vector calculus, differential calculus of functions of several variables, multiple integration, vector fields and theorems. Hand calculators will be used for selected topics. (Degree Credit) (CSU) (UC) AA GE, CSU GE, IGETC

## MATH 250BF Linear Algebra and Differential Equations (4)

 Prerequisite: MATH 250AF with a grade of "C" or betterFour hours lecture per week. This is a fourth semester course in calculus covering matrices, determinants, vector spaces, ordinary differential equations of the first order, linear second order differential equations, power series solutions, and Laplace transformations. Hand calculators will be used for selected topics. (Degree Credit) (CSU) (UC) AA GE, CSU GE, IGETC

## MATH 250CF Additional Topics in Linear Algebra (2)

Corequisite: MATH 250BF taken concurrently or completed with a grade of "C" or better
Two hours lecture per week. This course completes the Introduction to Linear Algebra begun in MATH 250BF. Topics covered include linear transformations and their properties, the Dimension-sum theorem, matrices of linear transformations, inner product spaces and their properties, orthogonality, the Gram-Schmidt process, diagonalizability of symmetric matrices, and simplifying quadratic forms. (Degree Credit) (CSU) (UC) AA GE

## MATH 299 F Mathematics Independent Study (1)

One to three hours lecture or scheduled conferences per week or equivalent. This course is for able students who wish to increase their knowledge of pure and/or applied mathematics through individual study and small group conferences. Elective credit in Mathematics. Course may be taken four times for credit. (CSU) (UC review required) (Degree Credit) AA GE

## Metallurgy (METL)

Technology and Engineering Division
Office: Bldg 700
714.992.7051

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Metallurgy Courses

## METL 192 F Fundamentals of Metallurgy (3)

Three hours lecture per week. A survey of the field of metallurgy designed to familiarize the technical student with the production, use, and testing of metals. This course is applicable for students in all technical fields. (CSU) (Degree Credit)

## Microbiology (MICR)

Natural Sciences Division<br>Office: Bldg 1000<br>714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

Associate in Arts Degree

## Microbiology Courses

## MICR 220 F Medical Microbiology (4)

Advisory: A lab course in biological science
Three hours lecture and three hours lab per week. Includes microorganisms that are significant in the problems of health. Special attention is given to the topics of infectious disease transmission, immunology, prophylaxis, and sanitation. Principles of applied microbiology are stressed. Recommended for students in programs of allied health science. (CSU) (Degree Credit) CSU GE

## MICR 262 F General Microbiology (5)

Prerequisite: A biological science lab course with a grade of "C" or better that includes cellular structure/function and CHEM 101 F or equivalent with a grade of "C" or better
Three hours of lecture and six hours of lab per week. This course studies the morphology, taxonomy, metabolism, and molecular genetics of microbes with emphasis on bacteria, protozoa, viruses, helminths and fungi. The role of microorganisms in the disease process, epidemiology, immunology and chemotherapeutic control measures, environment impact and industrial application are discussed. Lab exercises focus on the development of basic techniques in aseptic handling, visualization, and quantification of microbes. Other lab exercises include sampling water and soil for medically or environmentally important microbes, assessing antibiotic sensitivity, fluorescent microscopy, and immunoassays. The course is designed for students pursuing a career or major in microbiology and various allied health professions. (CSU) (UC) (Degree Credit) CSU GE, IGETC

# Music (MUS) 

Fine Arts Division<br>Office: Bldg 1100<br>714.992.7034<br>Dean: Bob Jensen<br>Website: finearts.fullcoll.edu

Associate in Arts Degree<br>Certificate in Piano Teaching<br>Music: Commercial Associate in Arts Degree<br>Recording/Production Certificate

## Music Courses

## MUS 001 F Instrumental Performance Practicum (.5-3)

Letter Grade or Pass/No Pass option
This course is for students who wish to increase their knowledge of Instrumental Performance. Various topics will be offered. Unit credit may range from .5 to 3 units in any given semester. Consult the class schedule to verify credit for a particular semester. Course may be taken four times for credit.

## MUS 002 F Community Band Studies (1)

Three hours lecture and one and one-quarter hours lab per week. Performance of standard repertoire of Concert Band Literature. Emphasis is on developing tone, pitch, balance, blend, and ensemble accuracy in performance. Audition is required for seating placement within the ensemble. Performances off campus and outside of class time are required. Course may be taken four times for credit. (Degree Credit)

## MUS 003 F Community Band Experience (1)

Three hours lecture and one hour lab per week. Performance of standard repertoire of Concert Band Literature. Emphasis is on development of expressive playing, nuance, phrasing, interpretation of music, and accuracy in performance. Music of British composers Ralph Vaughan Williams, Gustav Holst, Sir William Walton and Percy Grainger will be studied throughout this course. Audition is required for seating placement within the ensemble. Course may be taken four times for credit.

## MUS 010 F Percussion Practicum (.5-6)

Letter Grade or Pass/No Pass option
One-half to three units lecture and one-half to three units lab per week. This course is for students who wish to increase their skills and knowledge of Percussion I performance. Various topics will be offered. Unit credit may range from .5 to 3 units in any given semester. Consult the class schedule to verify credit for a particular semester. Course may be taken four times for credit.

## MUS 011 F Spring Opera Studies (3)

Letter Grade or Pass/No Pass option
Three hours lecture plus one hour listening in the Music Lab per week. This course is dedicated to the students' understanding and appreciation of the repertoire, artists, and productions of opera with an emphasis upon the current Metropolitan Opera season. Opportunity for attendance at Metropolitan Opera performances in New York City will be provided. Course may be taken four times for credit.

MUS 012 F Summer Opera Studies (3)
Letter Grade or Pass/No Pass option
Three hours lecture plus one hour listening in the Music Library per week. This course is dedicated to the students' understanding and appreciation of the repertoire, artists, and productions of opera with an emphasis upon the current Santa Fe Opera season in Santa Fe, New Mexico. Opportunity for attendance at Santa Fe Opera performances will be provided. Course may be taken four times for credit.

MUS 013 F Fall Opera Studies (3)
Letter Grade or Pass/No Pass option
Three hours lecture plus one hour listening in the Music Library per week. This course is dedicated to the students' understanding and appreciation of the repertoire, artists, and productions of opera with an emphasis upon current Opera Pacific and Los Angeles Opera seasons. Opportunities for attendance at local operatic productions will be provided. Course may be taken four times for credit.

## MUS 021 F The Teaching of Piano I (3)

Letter Grade or Pass/No Pass option
Prerequisite: Piano audition
Three hours lecture per week plus one hour per week in Music Lab. This course is designed to develop skills on methods of teaching beginning and elementary piano students. The emphasis is on comparison of piano books available today; communication skills; networking; and business aspects of maintaining a private piano studio. This course is not for beginning pianists.

## MUS 022 F The Teaching of Piano II (3)

Letter Grade or Pass/No Pass option
Three hours lecture plus one hour per week in Music Lab. This course is an overview of performance practices and musical styles of each musical period. Students will learn pedagogical methods for teaching intermediate to early advanced level piano students through a hands-on study of repertoire, theory and technique from a teaching standpoint. Class participation includes peer teaching, piano competition, and teaching demonstrations. Beginning pianists may not take this course.

## MUS 030 F Music Notation Software (2)

Two hours lecture plus two hours arranged in the Music Lab per week. This course offers instruction in the preparation of professional-quality manuscripts, vocal scores, and instrumental scores. This course will include the transposition of instruments and copying from full instrumental scores and is open to all music majors, music teachers, or performers. This is a career-oriented course. (Degree Credit)

MUS 031 F History and Appreciation Practicum (.5-3)
Letter Grade or Pass/No Pass option
One-half to three units lecture and one-half to three units lab per week. This course is for students who wish to increase their knowledge of Music History and Appreciation. Various topics will be offered. Unit credit may range from .5 to 3 units in any given semester. Consult the class schedule to verify credit for a particular semester. Course may be taken four times for credit.

## MUS 070 F Musical Theatre Techniques (2)

Pass/No Pass only
Two hours lecture per week. Students will participate in an in-depth analysis and application of the skills necessary for the performance in the styles of Musical Theatre, from audition to performance. Course may be taken four times for credit.

## MUS 072 F Opera Theatre Workshop (2)

Advisory: Students are admitted by audition or by consent of the instructor.
Two lecture hours per week. The student will participate in an in-depth analysis and application of the skills necessary for the performance in the styles of opera theater from audition to performance. Course may be taken four times for credit.

## MUS 080 F Steel Drum Class (1)

One hour lecture and one hour lab per week. The Steel Drum Class is intended to give the students the basic skills to play the steel drum. Students will get hands on experience in an ensemble setting. This class is designed to prepare students for the Steel Drum Ensemble. Lectures and demonstrations are combined with hands on experience in learning to play the steel drum. Students will learn music from Trinidad, modern jazz, and classical arrangements. This will be accomplished through sight reading and by traditional rote methods. Course may be taken four times for credit.

## MUS 081 F Music Tour Practicum (.5-3)

Letter grade or Pass/No Pass option
Zero to three hours lecture per week plus zero-nine hours lab per week. This course is for students who wish to increase their knowledge and skills in a practical concert tour. This class will involve the students in the preparation, management, and performance venues appropriate for the genre. Various topics will be offered. Unit credit may range from .5 to 3 units in any given semester. Consult the class schedule to verify credit for a particular semester. Course may be taken for credit four times.

## MUS 097 F Intermediate Percussion: Drum Set (1)

Prerequisite: MUS $152 F$ with a grade of "C" or better and audition establishing elementary sight reading skills
One hour lecture and one hour lab per week, plus one hour per week in Practice lab 1114-N. The students will learn popular drum set techniques through lecture, demonstration, text, studio and video recordings and class participation. The instructor will give group and individual instruction and present an overview of Jazz, Rock, Latin, and Pop drumming styles. Course may be taken four times for credit.

## MUS 100 F Music Lab (1-2)

Open Entry/Open Exit
Pass/No Pass only
Fifty-four to one hundred eight hours lab required per term in the Computer Lab, Music Library or Practice Room Suite 1114. For each 54 hours beyond the music requirements that the student spends progressing in the Computer Lab, listening in the Music Library or practicing in the Practice Room Suite 1114, one unit of credit will be granted. All hours must be verified by computer sign in. (CSU) (Degree Credit)

## MUS 101 F Music Fundamentals (3)

Three hours lecture per week. This course is designed as an entry-level music theory course for non-music majors. The course includes basic music terminology, rhythm and pitch notation, clefs, scales, intervals and triads. Concurrent enrollment in MUS 135AF or MUS 135BF is desirable. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## MUS 102 F Music Reading (3)

Three hours lecture per week plus one hour in the Rhythm Lab or Music Library per week. Designed for the person whose music reading skills are non-existent or very limited. Emphasis is upon learning by tapping rhythmic patterns and singing melodic materials, but includes enough of basic rhythm and pitch notation, intervals, scales, and meter by key signatures to make this possible. Open to all students but should be of special interest to prospective music majors, church choir members, and others who want to develop skills in music reading. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## MUS 104AF Beginning Musicianship (1)

Prerequisite: MUS 106 F with a grade of " $C$ " or better
Corequisite: MUS 107AF
Advisory: MUS 135AF
Two hours lecture per week plus one hour in the Rhythm/Computer Lab per week. This is the first course in ear training, sight singing, and musicianship for the music major. It includes sight singing, developing melodic and rhythmic performance skills along with melodic, harmonic, and rhythmic dictation. (CSU) (UC) (Degree Credit) AA GE

## MUS 104BF Intermediate Musicianship (1)

Prerequisite: MUS 104AF with a grade of "C" or better Corequisite: MUS 107BF
Advisory: MUS 135AF
Two hours lecture per week plus one hour in the Rhythm/Computer Lab per week. This course is a continuation of MUS 104AF. It includes the development of, at increasingly more difficult levels, melodic and rhythmic sight singing, along with melodic, harmonic, and rhythmic dictation. (CSU) (UC) (Degree Credit)

## MUS 106 F Introduction to Music Theory (3)

## Advisory: MUS 135AF

Three hours lecture and one hour lab per week. Designed as the entrylevel music theory class for music majors, the course includes basic music terminology, rhythm and pitch notation, clefs, scales, intervals, and triads. Keyboard and aural skills will also be introduced, along with a concise outline of the major style periods of music history. The ability to read music is strongly recommended and desirable. This course provides essential background for more advanced courses in music theory. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## MUS 107AF Harmony I (3)

Prerequisite: MUS 106 F with a grade of " $C$ " or better, or the ability to read music in treble and bass clef and to understand basic music terminology, rhythm and pitch notation, clefs, scales, intervals, and triads Corequisite: MUS 104AF
Advisory: MUS 135AF
Three hours lecture per week. This is the second course in music theory for music majors and includes four-part writing, cadences, 7th chords, chord inversions, figured bass symbols, tonality, phrases, periods, nonharmonic tones, harmonic progressions and keyboard harmony. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## MUS 107BF Harmony II (3)

Prerequisite: MUS 107AF with a grade of "C" or better
Corequisite: MUS 104BF
Advisory: MUS 135AF
Three hours lecture per week. This course follows MUS 107AF in the music theory sequence. It includes altered non-harmonic tones, and secondary dominants, modulation to closely related keys, borrowed chords, augmented sixth chords, the Neapolitan sixth, and altered dominants. Further studies will include modulation to foreign keys, ninth, eleventh, and thirteenth chords, and two and three part song form. (CSU) (UC) (Degree Credit)

## MUS 108 F Introduction to Music Technology (2)

Two hours lecture per week. This course is a prerequisite or concurrent course to recording (MUS 124 F) and electronic music (MUS 110 F) classes. This course is required of music majors. The course covers the fundamental vocabulary, methods, concepts, and devices used in contemporary music production and related media fields, including sound fundamentals, consumer audio equipment, personal computers and software, recording studios, electronic music, audio-visual productions, trade publications, relevant conventions, and employment opportunities. (CSU) (Degree Credit)

## MUS 110 F Electronic Music I (3)

## Prerequisite: MUS 108 F

Three hours lecture per week plus two hours arranged per week in the synthesizer lab. This course covers the recent history of electronic music, the classical tape studio, and the analog voltage controlled synthesizer, as well as the fundamentals of electronic music theory and techniques for instrument synthesis and sound design. (CSU) (Degree Credit) CSU GE

## MUS 112 F The Music Business (2)

Two hours lecture per week. This course is an introduction to intellectual property law, copyright forms, songwriter, publisher, recording artist, producer, and personal management agreements. This course also includes an explanation of Performance Rights Societies, licensing procedures, the foreign market, record manufacturing and distribution, and an overall look at the dynamics of the music and entertainment industries. Guest speakers will appear according to availability. (CSU) (Degree Credit)

## MUS 113 F Jazz History - An Appreciation (3)

Three hours lecture per week plus one hour listening in the Music Library per week. This course is a historical study of America's only original musical art form: jazz music. The principal focus will be on developing an appreciation and understanding of the music with secondary emphasis on the historical and cultural conditions, which influenced each era of jazz music; Dixieland, Swing, Cool Jazz, Bebop, Free Jazz, and Fusion. Active listening will be the primary function in the classroom. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## MUS 114 F Women, Music and Society (3)

Three hours lecture plus 30 minutes arranged listening in the Music Lab per week. This course focuses on the contributions women have made as composers and performers as well as the gender-specific problems to which women have been subject. There will be recitals and guest lecturers as well as presentations by students of selected topics. Attendance at two concerts related to women making music. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## MUS 116 F Music Appreciation (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week, plus one hour listening in the Music Library per week. This course is designed for the non-music major, and will cover music materials from the Middle Ages to the present. Emphasis is on listening to and the discussion of choral, orchestral, solo, opera, and chamber works. Concert attendance is required. Open to all students. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

MUS 117 F American Popular Music/Jazz Music Survey (3) Prerequisite: Reading skills evaluation recommended
Three hours lecture per week, plus one hour listening in the Music Library per week. Beginning with the musical influences of India, Africa, and Europe, the course examines the social conditions that made the music happen "that way" and grow into today's music. Includes Ragtime and Storyville, Blues, Spirituals and the Great Awakening, Jazz Age, Depression and Radio, Swing the King, Big Bands, Boogie Woogie, Rhythm 'n Blues, Country and Western, Rock 'n Roll, Progressive Rock, Beatles and Rolling Stones, White Ballad Tradition and Electronic Music. (CSU) (UC) AA GE, CSU GE, IGETC

## MUS 118 F Introduction to Opera (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week plus one hour listening in the Music Library per week. Introduction to the standard operatic repertoire in terms of development of musical style, dramatic structure, and performance tradition. Emphasis on elements of the art of operatic singing, voice classification, vocal range and technique, and dramatic values. Opportunities for attendance at operatic performances will be provided. Open to all students. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## MUS 119 F History of Rock Music (3)

Three hours lecture per week plus one hour listening in the Music Library per week. A historical study of the rock musician and his music. The principal focus will be on the music with secondary emphasis on the sociological, political, and economic conditions, which so heavily influenced this musical development. Listening will be the primary function in the classroom. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## MUS 120 F Survey of Music History (3)

Three hours lecture per week. This course is a survey of the history of western art music from antiquity through the twentieth century including the contributions of other cultures with selected readings, recordings, and score analysis. Emphasis is placed on cultural influences, performance practices, media, composers, and characteristics of each style period. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## MUS 123 F Concert Hour (1)

One hour lecture per week. Performance-lectures by faculty, guest artists, and students. Designed to provide the opportunity for students to expand their musical horizons by exposure to a wide variety of musical fare, to learn their roles as listeners, and to participate as student recitalists. Required of music majors but open to all students. Course may be taken four times for credit. (CSU) (Degree Credit) AA GE

## MUS 124 F Recording Studio I (3)

Prerequisite: MUS 108 F
Two hours lecture and four hours lab per week. This course covers the fundamental concepts in audio recording technology. Including studio business practices, microphones, mixers, signal processors, the sound field, monitors, recording and editing devices, synchronization, and production techniques. (CSU) (Degree Credit)

## MUS $\mathbf{1 2 5}$ F Recording Techniques Workshop for Performers (1)

One hour lecture plus one hour lab per week. This course is designed for the music performer enrolled in a college performance ensemble that is involved in making a performance tape, CD, DVD or TV show. Course includes recording, use of clic tracks, mike placement/set up, use of headphones, proper overdubbing techniques, lip syncing when needed and developing advanced studio performance skills. Units earned will be one unit of credit for 18 hours of time. Enrollment in this class is available only to students who are enrolled in a college performing group or small ensemble that is recording during the term the class is being offered. (CSU) (Degree Credit)

## MUS 126 F Beginning Voice (1)

One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Study of basic vocal techniques in a class situation. Deals with problems in tone production, breath control, pronunciation and choice of song literature. Preparation for recitals. Open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 130 F Beginning Guitar (1)

Letter Grade or Pass/No Pass option
One hour lecture and one hour lab plus one hour practice in Practice Room Suite 1114 per week. Study focuses on the fundamentals of playing the guitar: technique, note reading, scales, chords, simple picking and strumming patterns. A variety of musical styles, from classical to rock, are included in the repertoire. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 135AF Beginning Piano (1)

Letter Grade or Pass/No Pass option
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. This course will cover the fundamentals of piano playing, posture, keyboard topography, note reading, 5 -finger-pattern exercises, sight reading and piano repertoires. Course involves sight reading, technique and performing of prepared pieces. Required of music majors whose piano skills are non-existent or very limited. Open to all students. (CSU) (UC) (Degree Credit) CSU GE

## MUS 135BF Piano (1)

Letter Grade or Pass/No Pass option
Prerequisite: MUS 135AF with a grade of "C" or better
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Progressive study of basic piano techniques in a class situation. Focuses on developing functional keyboard skills by using basic chordal and scale materials. Involves group and solo playing of familiar melodies such as folk tunes, classical, romantic and contemporary pieces. Required of music majors whose piano skills are very limited. Open to all students. May be taken three times for credit. (CSU) (UC) (Degree Credit)

## MUS 143 F Beginning Strings (1)

One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Study of the violin, viola, cello or string bass in a class situation. No previous experience necessary. Open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 146 F Woodwind Class (1)

One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Study of the flute, oboe, bassoon, clarinet or saxophone in a class situation. No previous woodwind experience necessary. Open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

MUS 149 F Brass Class (1)
One hour lecture and one hour lab per week plus one hour practice in practice Room Suite 1114 per week. Study of the trumpet, French horn, trombone, baritone horn, or tuba in a class situation. No previous brass experience necessary. Open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 152 F Percussion Class (1)

One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Study of snare drum, timpani, and keyboard-mallet instruments in a class situation. Emphasis on rhythmic accuracy. No previous percussion experience necessary. Open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 156 F Beginning Jazz Improvisation Instrumental (1)

One hour lecture and two hours lab per week plus one and one-quarter hours in the Rhythm Lab, Recording Studio, or Music Library per week. Emphasis upon beginning techniques of rhythmic, melodic, and harmonic improvisation. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

MUS 157 F Beginning Vocal Styling and Improvisation (1) Advisory: Concurrent or previous enrollment in MUS 126 F
One hour lecture and one hour lab per week plus 1-1/4 hours in the Rhythm Lab, Recording Studio or Music Library per week. Designed to give vocal students training in jazz and popular song-styling techniques and to introduce students to rhythmic and melodic word manipulation (improvisation). May be taken twice for credit. (CSU) (UC) (Degree Credit)

## MUS 180 F Collegiate Chorale (1)

Three hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals, studio recording, and concerts. Standard choral literature will be rehearsed and performed, with an emphasis on basic choral techniques. Course is open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## MUS 181 F Women's Chorale (1)

Three hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals, studio recording, and concerts. Women's Chorale is a performing group, which performs traditional choral music for treble voices in styles from the Baroque, Classical, Romantic, and Contemporary periods. This course is open to students with limited or no singing experience. Ability to sing accurate pitches is strongly desirable. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 196HF Honors Creative Arts - Music (3)

Three hours lecture and one hour lab per week. This course explores the nature of creativity through exposure to the performing arts, literature and the fine arts. Honors students will make independent investigation into the various art forms and apply aesthetic theory to discover interrelationships between genres. Students are required to attend museums, concerts and theatrical performances. Students who receive credit in this course may not receive credit in THEA 196HF or ART 196HF (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## MUS 203 F Counterpoint (3)

Prerequisite: MUS 107BF with a grade of " $C$ " or better
Corequisite: MUS 204AF
Advisory: MUS 135AF
Three hours lecture per week. This course introduces the contrapuntal style of 17th and 18th century counterpoint including application to the 20th century. This class explores, through analysis and writing, free counterpoint, technique of canonic writing, two-part invention, and threepart fugue. (CSU) (UC) (Degree Credit)

## MUS 204AF Advanced Musicianship (1)

Prerequisite: MUS 104BF with a grade of "C" or better

## Advisory: MUS 135AF

Two hour lecture plus one hour in the Music Library or Rhythm Lab per week. This course is a continuation of MUS 104BF. This course includes the development of, at increasingly more difficult levels, melodic and rhythmic sight singing, along with melodic, harmonic and rhythmic dictation. (CSU) (UC) (Degree Credit)

## MUS 204BF Pop/Commercial Musicianship (formerly

 Advanced Musicianship) (1)Prerequisite: MUS 104BF with a grade of ' $C$ ' or better. Corequisite: MUS 205 F
Two hours lecture plus one hour in the Music Library or Rhythm Lab per week. This course is a continuation of MUS 204AF. It includes the development of, at increasingly more difficult levels, melodic and rhythmic sight singing, along with melodic, harmonic, and rhythmic dictation. (CSU) (UC) (Degree Credit)

## MUS 205 F Pop/Commercial Music Theory (3)

Prerequisite: MUS 107BF
Corequisite: MUS 204BF
Four hours lecture per week plus one hour in the Rhythm Lab or Music Library per week. Study of harmonic material as used in popular music and jazz. Emphasis on aural recognition of chords, harmonic progressions and melodies. Study of chord progressions, substitutions, harmonic alterations and melodic writing. (CSU) (UC) (Degree Credit)

## MUS 207 F Pop/Commercial Arranging/Composing (3) Prerequisite: MUS 205 F

Four hours per week lecture plus one hour in the Rhythm Lab or Music Library per week. Analysis of contemporary and traditional songs and study of techniques of scoring for various combinations of voices and instruments. Emphasis of using modern orchestration and scoring projects to be performed and recorded for class members. (CSU) (Degree Credit)

## MUS 208 F Music Copying (2)

Two hours lecture per week. Instruction in the preparation of professional-quality manuscripts, vocal scores and instrumental scores. Includes transposition of instruments and copying from full instrumental scores. Open to all music majors, music teachers or performers. This is a vocational, career-oriented course. (CSU)

## MUS 224 F Recording Studio II (3)

## Prerequisite: MUS 124 F

Two hours lecture and four hours lab per week. This course provides an introduction to digital audio concepts, recorders, synchronization, and the digital audio workstation. Students will be assigned projects in the music department's recording facilities. Course may be taken twice for credit. (CSU) (Degree Credit)

## MUS 225 F Applied Music - Private Study (1)

## Prerequisite: Audition

One hour lecture per week, plus one half hour lesson with private instructor per week, plus five hours of practice in Practice Room per week. This course is for music majors and it affords them the opportunity to receive private music lessons with a Fullerton College Faculty member. A performance at Faculty Juries is required each semester. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 227 F Intermediate Voice (1)

Advisory: MUS 126 F
One hour lecture and one hour lab per week plus one hour practice per week in Practice Suite 1114. Study of vocal literature and techniques in a class situation. Emphasis on individual progress in tone production, breath control and diction. Designed for more advanced non-major, or the voice major not yet qualified for Advanced Voice. Preparation for recitals. (CSU) (UC) (Degree Credit)

## MUS 228 F Advanced Voice (1)

Advisory: MUS 227 F or audition
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Individual instruction in vocal techniques and interpretation of solo voice literature in a class situation. Emphasis upon repertoire and public performance. Participation in recitals is required. Designed for music majors but open to all students. Faculty juries requested each semester. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 231 F Intermediate Guitar (1)

## Prerequisite: MUS 130 F

One hour lecture and one hour lab per week. Study of guitar literature and techniques in a class situation. Emphasis on individual progress in execution and interpretation. Designed for more advanced non-guitar major or the guitar major who is not yet qualified for Classical or Jazz Guitar. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 232 F Classical Guitar (1)

## Prerequisite: MUS 231 F

One hour lecture and one hour lab per week. Individual instruction in guitar techniques and interpretation of solo guitar literature in a class situation. Emphasis upon repertoire and public performance. Participation in recitals is required. Designed for music majors but open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 233 F Jazz Guitar (1)

Prerequisite: Audition
One hour lecture and one hour lab per week. Designed to give a functional knowledge of the guitar and the electric-bass in the jazz and popular idioms. Emphasis upon diatonic scales in all positions, chords, arpeggios and practical theory. In the evening college this class may be offered as guitar only, or electric-bass only if enrollment warrants - see schedule of classes. Designed for music majors but open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 234 F Intermediate Rock Guitar (1)

Prerequisite: Audition or MUS 130 F
One hour lecture and one hour lab per week. This is a skills course designed for the guitarist who has already mastered the fundamental instrumental technique and basics of music. Study focuses on proceeding from the general study of the guitar to techniques specific to rock, blues, and pop guitar styles. Open to students who have completed at least one semester of MUS 130 F , or to other students by audition. Course may be taken four times for credit. (CSU) (Degree Credit)

## MUS 236 F Intermediate Piano (1)

Prerequisite: MUS 135BF or audition
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Study of keyboard literature and techniques in a class situation. Emphasis on individual progress in building musical vocabulary, phrasing, articulations, technique and interpretation. Designed for the more advanced non-piano major or the piano major who is not yet qualified for Advanced Piano. May be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 237 F Advanced Piano (1) <br> Prerequisite: MUS 236 F

One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Individual instruction on piano techniques and interpretation of solo piano literature in a class situation. Emphasis will be on building and memorizing piano repertoire and public performance. Performance by memory is required. Designed for music majors but open to all students. May be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 238 F Pop/Commercial Piano (1)

Prerequisite: Audition
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Exploration and study of basic harmonic and rhythmic concept at the keyboard as applied to jazz and popular music. Emphasis on improvisation. Designed for music majors but open to all students. (CSU) (UC) (Degree Credit)

## MUS 244 F Advanced Strings (1)

## Prerequisite: MUS 143 F or audition

One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Individual instruction in string techniques and interpretation of solo string literature in a class situation. Emphasis upon repertoire and public performance. Participation in recitals is required. In the evening college this class may be offered as violinviola only, cello only, or string bass only if enrollment warrants - see schedule of classes. Designed for music majors but open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 247 F Advanced Woodwinds (1)

Prerequisite: MUS 146 F or audition
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Individual instruction in woodwind techniques and interpretation of solo woodwind literature in a class situation. Emphasis upon repertoire and public performance. Participation in recitals is required. In the evening college this class may be offered as flute only, clarinet only, saxophone only, oboe only, or bassoon only if enrollment warrants - see schedule of classes. Designed for music majors but open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 250 F Advanced Brass (1)

Prerequisite: MUS 149 F or audition
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Individual instruction in brass techniques and interpretation of solo brass literature in a class situation. Emphasis upon repertoire and public performance. Participation in recitals is required. In the evening college this class may be offered as trumpet only, French horn only, trombone-baritone only, or tuba only if enrollment warrants - see schedule of classes. Designed for music majors but open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 253 F Advanced Percussion (1)

Prerequisite: MUS 152 F or audition
One hour lecture and one hour lab per week plus one hour practice in Practice Room Suite 1114 per week. Individual instruction in percussion techniques and interpretation of solo percussion literature in a class situation. Emphasis upon repertoire and public performance. Participation in recitals is required. In the evening college this class may be offered as keyboard-mallet only, traps only, or other combination of percussion instruments if enrollment warrants. Designed for music majors but open to all students. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 256 F Advanced Jazz Improvisation Instrumental (1)

## Prerequisite: MUS 156 F or audition

One hour lecture and two hours lab per week plus one and one-quarter hours in the Rhythm Lab, Recording Studio, or Music Library per week. Emphasis upon intermediate techniques of rhythmic, melodic, and harmonic improvisation. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## MUS 257 F Advanced Vocal Styling and Improvisation (1)

Advisory: MUS 157 F , two terms with a grade of " $B$ " or better or Audition
One hour lecture and one hour lab per week plus 1-1/4 hours in the Rhythm Lab, Recording Studio or Music Library per week. Designed to give vocal students training in jazz and popular song-styling techniques and to introduce students to advanced rhythmic and melodic word manipulation (improvisation). Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## MUS 258 F Jazz Guitar Reading Ensemble (1)

Advisory: MUS 234 F, MUS 231 F and/or MUS 233 F
Lectures and demonstrations are combined with rehearsals of beginning and intermediate level jazz guitar repertoire. Emphasis is placed on developing reading skills (both rhythm and note recognition), chord knowledge, and improvisation up to the intermediate level. Intermediate guitarists are also given the opportunity to work with a rhythm section and to develop the skills necessary to work effectively with other instrumentalists. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 259 F Steel Drum Ensemble (1)

Prerequisite: Audition
One hour lecture and one hour lab per week. Lectures and demonstrations are combined with student performances that provide information and opportunities toward the goal of live musical performances in the Steel Pan Ensemble. Emphasis will be placed on sight reading and improvisation of music from Trinidad, modern jazz, and classical arrangements. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 260 F Guitar Ensemble (1)

Prerequisite: Audition
One hour lecture and one hour lab per week. Rehearsal and performance of original and transcribed guitar ensemble literature. Performances required of all participants. Open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 261 F String Ensemble (1)

## Prerequisite: Audition

One hour lecture and one hour lab per week. Rehearsal and performance of standard and current string ensemble literature. This course is open to music majors as well as non-music majors and to all residents of the North Orange County Community College District. This course is open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 262 F Woodwind Ensemble (1)

Prerequisite: Audition
One hour of lecture and one hour of lab per week plus one hour of practice in the Practice Room Suite per week. The class will consist of study, rehearsal, and performance of Woodwind Ensemble music. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 263 F Brass Ensemble (1)

## Prerequisite: Audition

One hour of lecture and one hour of lab per week plus one hour practice in Practice Room per week. The emphasis of this course is on modern brass ensemble literature. This class is open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 264 F Percussion Ensemble (1)

Prerequisite: Audition
One hour lecture and one hour lab per week. Rehearsal and performance of standard and current percussion ensemble literature. Open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 265 F Piano Ensemble (1)

## Prerequisite: Audition

One hour lecture and one hour lab per week. The course is designed to enhance ensemble-playing skills by focusing on rehearsal technique, balance, and hand coordination. Emphasis is on performing of standard and current duo pieces, four-hand literature, and pieces requiring more than two pianos and/or other instruments. Participation in piano ensemble recital and performances is required. May be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 266 F Jazz Combo (1)

## Prerequisite: Audition

One hour lecture and two hours lab per week. Lecture/demonstrations, combined with student performances, recordings and tours are used to increase understanding and appreciation of many Jazz genres and their relationship to modern American Music. Ability to play suitable instruments is required. Previous band, jazz ensemble, or orchestra experience and improvisational skills are desirable. Open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 268 F Jazz Guitar Ensemble (1)

## Prerequisite: MUS 233 F

One hour lecture and one hour lab per week. Lecture/demonstrations are combined with student performances to provide opportunities for learning and growth in the area of jazz guitar. Particular emphasis is placed on the application of advanced guitar techniques to standard jazz literature. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 269 F Alternative Jazz LAB Ensemble (1)

## Prerequisite: Audition

One hour lecture and two hours lab per week. The combination of lecture/demonstrations with student performances are used to increase understanding and appreciation of many musical genres including Fusion, Latin, Rock, Pop, Salsa, Indian, and Afro-Cuban music and their relationship to modern American composition. Ability to play suitable instruments is required. Previous band, jazz ensemble, or orchestra experience and improvisational skills are desirable. Open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 271 F Fullerton College Symphony (1)

Prerequisite: Audition
Three hours rehearsal per week plus one and one-quarter hours per week arranged in rehearsals, studio recording, and concerts. Rehearsal and performance of standard orchestral literature. Performances on Campus and in surrounding communities. Open to all residents of the North Orange County Community College District by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## MUS 273 F Concert Band (1)

## Prerequisite: Audition

Three hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals and concerts. This course will rehearse and perform standard band literature. Public performances will be held at various locations. Open to all residents of the North Orange County Community College District. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## MUS 274 F Fullerton College Symphonic Winds (1)

 Prerequisite: AuditionThree hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals, recordings, and concerts. Rehearsals and performance of standard band literature. Performances, which are required of all participants, take place on campus and in the community. This course is open to music majors and non-music majors. An audition is required. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## MUS 275 F Bravo Brass (1) <br> Prerequisite: Audition

Three hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals, studio recording, and concerts. Rehearsal and performance of standard brass literature. Includes American popular and jazz music and a variety of ensemble combinations including voice. Open to all residents of the North Orange County Community College District by audition. Course may be taken four times for credit. (Not currently being offered - if interested, contact Division Office.) (CSU) (UC) (Degree Credit)

## MUS 276 F Jazz Band (1)

Prerequisite: Audition
Advisory: Concurrent enrollment in MUS 274 F
Three hours rehearsal per week plus one and one-quarter hour per week arranged in sectional rehearsals, studio recording, and concerts. Rehearsal, recording, and concert performance of standard and current jazz fusion music. Student compositions and arrangements encouraged. Open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 277 F Jazz LAB Band (1)

## Prerequisite: Audition

Advisory: Concurrent enrollment in MUS 274 F
Three hours rehearsal per week plus one and one-quarter hour per week arranged sectional in rehearsals, studio recording, and concerts. Rehearsal, recording, and concert performance of standard and current jazz/fusion and swing era big band music. Student composition/ arrangements encouraged. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 281 F Concert Choir (1)

## Prerequisite: Audition

Three hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals, studio recordings, and concerts. Standard choral literature will be rehearsed and performed with an emphasis on early western music of the Renaissance and Baroque periods. Course is open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## MUS 282 F Fullerton College Master Chorale (1)

## Prerequisite: Audition

Three hours rehearsal per week plus 1-1/4 hours per week arranged in additional rehearsals, recordings, and concerts. This course is a performance oriented class and incorporates traditional choral literature of a sacred and secular nature. There will be at least one major work performed per year. Performances are required of all participants. Generally the performances are on campus but there may be some performances in the community. This course is open to music majors as well as nonmusic majors and to all residents of the North Orange County Community College District. An audition is required. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE

## MUS 285 F Chamber Singers (1)

Advisory: Audition
Three hours rehearsal per week plus 1-1/4 hours per week arranged in rehearsals, studio recording, and concerts. Choral Chamber Music literature will be rehearsed and performed on campus, in surrounding communities and schools, and on occasional tours. Open to all students. May be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 287 F Vocal Jazz Ensemble (1)

## Advisory: Audition

Three hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals, studio recordings, and concerts. The students in this course will rehearse and perform standard and current music from the Vocal Jazz genre. The vocalists will be accompanied by a small instrumental ensemble. There will be a secondary emphasis upon vocal improvisation in the scat style. Student compositions and arrangements are encouraged. Open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 288 F BRAVO Song/Dance Ensemble (1)

## Prerequisite: Audition

Three hours rehearsal per week plus one and one-quarter hour per week arranged in rehearsals, studio recordings, and concerts. Singers who dance and dancers who sing will rehearse and perform standard and commercial music. Small instrumental ensembles or sound tracks accompany performances. Literature is chosen with an emphasis on scenes from musical theatre. Instruction includes choreography, staging, vocal and microphone techniques. This course is open to all students by audition. Course may be taken four times for credit. (CSU) (Degree Credit)

## MUS 290 F Musical Theatre Production (3) <br> Prerequisite: Audition

Twenty hours rehearsal per week during summer session or equivalent (two and one-half hours lecture and seven and one-half hours lab per week per semester). Rehearsal and performance of a musical or opera. Participation in all phases of the production is required. Includes leading roles, under study roles, chorus parts, dance routines, staging, and acting. Open to all students by audition. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## MUS 299 F Music Independent Study (1)

One hour conference per week. For advanced students who wish to pursue a particular area of music through individual study. Course may be taken four times for credit. (CSU) (UC review required) (Degree Credit)

## MUS 910 F Electronic Music II (3)

## Prerequisite: MUS 110 F

Three hours lecture and one hour arranged per week in the synthesizer lab. This class covers the procedures, instruments, and techniques used in a contemporary MIDI synthesizer studio. It includes the use of sequencers, editor/librarians, intelligent arrangers, algorithmic composers, and non-linear editing in a digital audio workstation. Course may be taken three times for credit. (Degree Credit)

## Office Technology (OT)

Business and CIS Division<br>Office: Bldg 300<br>714.992.7032<br>Dean: Ann Hovey<br>Website: http://bizdiv.fullcoll.edu

Administrative Office Assistant: Associate of Science Degree Administrative Office Assistant Certificate<br>Legal Office Administration: Associate in Science Degree<br>Legal Office Administration Certificate<br>Word Processing: Associate in Science Degree<br>Word Processing Certificate

## Office Technology Courses

## OT 010 F Computer Concepts (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that allows students to gain knowledge in basic computer concepts through completion of projects and exams. This includes concepts about hardware and software, Internet, networking, multimedia, operating systems, and productivity applications.

## OT 011 F College Keyboarding Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open entry/open-exit course that introduces keyboarding to students with no previous computer experience. Students will develop touch control of the keyboard and will learn proper typing techniques. Students will all also learn to format standard business letters, memorandums and reports using Microsoft Word.

## OT 012 F College Keyboarding Formatting Skills (1)

## Open Entry/Open Exit

Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit keyboarding formatting course for students with no previous computer experience. Students will continue developing touch control of the keyboard and will learn to format various kinds of business correspondence, electronic forms, and desktop publishing projects from unarranged and rough-draft sources.

## OT 013 F College Keyboarding Speed and Accuracy (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that introduces keyboarding to students with no computer skills. This class teaches keyboarding in a hands-on environment through lab projects and exams for student with no previous computer experience. Students who have mastered correct fingering skills for alphabetic and symbol keys will learn how to increase typing speed and accuracy.

## OT 020 F Business Career Success Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that assists students with identifying a satisfying career in business, deciding upon a specific job, and preparing for lifelong learning. Topics include personal strengths and weaknesses, interests and abilities, career fields, job identification, job motivation, and personal assessments.

## OT 021 F Business Resume Writing Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that covers basic resumes, cover letters, and interviewing as students prepare for employment. Topics include employer needs, career objectives, work and educational experiences, personal information, persuasive letters, letter and resume format and mechanics and appearance.

## OT 025 F Basic Internet Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that allows students to gain knowledge in basic Internet concepts through completion of projects and exams. This includes concepts about the history of the Internet, operation of browsers, and the use of email.

## OT 026 F Basic HTML Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This course is an open-entry/open-exit course that introduces students to HTML with no previous computer experience. This class teaches HTML in a hands-on environment through lab projects and exams for students with no previous computer experience. Students will learn how to create a web page, format a page, set print options, and insert graphics.

## OT 027 F Basic Adobe PageMaker (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This course is an open-entry/open-exit introduction to PageMaker for students with no previous computer experience. Students will learn to create basic documents, perform basic formatting and basic printing.

## OT 028 F Basic Adobe Illustrator (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that teaches Adobe Illustrator for students with no previous computer experience. Students will learn to create and edit basic graphic elements, and design graphics for use in various business applications.

## OT 035 F Basic WordPerfect Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This course is an open-entry/open-exit introduction to WordPerfect for students with no previous computer experience. This class teaches WordPerfect in a hands-on environment through lab projects and exams for students with no previous computer experience. Students will learn how to create a document, format a document, set print options, and insert graphics.

## OT 036 F Basic Microsoft Word Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that introduces Microsoft Word to students with no previous computer experience. This class teaches Microsoft Word in a hands-on environment through lab projects and exams for students with no previous computer experience. Students will learn how to create a document, format a document, set print options, and insert graphics.

## OT 037 F Basic Microsoft Excel Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This course is an open-entry/open-exit introduction to Microsoft Excel for students with no previous computer experience. This class teaches Microsoft Excel in a hands-on environment through lab projects and exams for student with no previous computer experience. Students will learn how to create a worksheet, enter and format data, and create graphs.

## OT 038 F Basic Microsoft Access Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This course is an open-entry/open-exit introduction to Microsoft Access for students with no previous computer experience. This class teaches Microsoft Access in a hands-on environment through lab projects and exams for student with no previous computer experience. Students will learn basic database concepts, use tables and queries, and create forms and reports.

## OT 039 F Basic Microsoft PowerPoint Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that introduces Microsoft PowerPoint to students with no previous computer experience. This class teaches Microsoft PowerPoint in a hands-on environment through lab projects and exams for student with no previous computer experience. Students will learn how to create and edit a presentation and use graphics.

## OT 040 F Basic Microsoft Publisher Skills (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that introduces Microsoft Publisher to students with no previous computer experience. This class teaches Microsoft Publisher in a hands-on environment through lab projects and exams for student with no previous computer experience. Students will learn how to create a document, format a document, set print options, and insert graphics.

## OT 041 F MS Word for Academic Papers (.5-1)

Pass/No Pass only
One-half to one hour lecture per semester. This course will introduce students to research paper development using MS Word. It covers an overview of features used to prepare an academic term paper including footnoting and bibliography. This is a variable unit course; see current class schedule for course information.

## OT 042 F MS Word for Academic Papers (.5-1)

Open Entry/Open Exit
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that introduces students to research paper development using Microsoft Word. It covers an overview of features used to prepare an academic term paper including footnoting and bibliography.

## OT 043 F Creating Promotional Pieces (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that allows students to grain the knowledge in creating promotional pieces with Microsoft Word. These documents include flyers, brochures, tri-folds and other business-related documents.

## OT 044 F Presentations and Web Pages (1)

Open Entry/Open Exit
Pass/No Pass only
Nine hours lecture and twenty-seven hours lab per semester. This is an open-entry/open-exit course that teaches the student how to create Web pages and business presentations by using Microsoft Word. This includes designing a new web page, exporting an existing Word document in web format, designing presentations, and creating presentations.

OT 060 F Current Issues in Office Technology (1-3)
This course is for students who wish to increase their knowledge and skills in various office technology-related topics. Unit credit may range from one to three units in any given semester. Consult the class schedule to verify course topics being offered for a particular semester. May be taken for credit four times. (Degree Credit)

## OT 070 F Business Protocol and Ethics (2)

One and one-half hour lecture and one and one-half hour lab per week. This course covers the business protocol, etiquette and ethics skills needed to be successful in the business world. This course will give you the skills to present yourself with confidence and authority to succeed in business. Students will study business protocol skills including proper introductions and handshakes, dining skills, dressing for success, gift giving and telephone skills. With the use of a computer, you will learn how to properly use electronic communication and business correspondence. Students will study business ethics and how to appropriately deal with ethical issues in the business world.

## OT 071 F Professional Business Entertaining and Dining: Protocol and Etiquette (.5)

Eight hours lecture per semester. This course covers business protocol skills needed to be successful in the global economy. This course will provide the skills necessary for the student to appear confident and authoritative in a business environment. Students will learn how to be a savvy and successful host and guest. Topics include the business lunch/dinner, business receptions, receiving lines, making toasts, American and Continental styles of eating, dining skills, navigating place settings, and eating difficult foods.

## OT 072 F Presenting a Professional Image for Business Travel: Protocol and Etiquette (.5)

Eight hours lecture per semester. This course will provide the skills needed for the student to appear confident and authoritative in the business arena. It will examine how to dress for success and how to prepare a traveling business wardrobe, as well as protocol, ethics, and etiquette skills for business travel. Topics include how to put together a professional business wardrobe, how to choose colors to enhance a presentation, how to travel light but pack everything needed for a business presentation, and how to feel comfortable and fit into the world of business professionals based on dress, color choices, grooming and personal style.

## OT 073 F Introductions, Business Meetings, Networking, and Techno Etiquette (.5)

Eight hours lecture per semester. This course covers business etiquette and protocol skills, and provides the skills necessary for the student to appear confident and authoritative in the business environment. Topics include how to make savvy introductions, proper handshakes, conducting business meetings, techno etiquette skills for the professional office, communication skills and business correspondence.

## OT 074 F Saying the Right Thing: Professional Ethics and Gift Giving (.5)

Eight hours lecture per semester. This course will give students confidence and sensitivity to interact with people with disabilities and thereby enhance their understanding of the protocol and etiquette. Students will discover the ins and outs of gift giving from clients to staff to CEOs and learn to distinguish between appropriate actions and unethical business dealings.

## OT 080 F Keyboarding Beginning (1.5)

One and one-half hour lecture and one hour lab per week. This is a beginning course in keyboarding, including mastery of the alphanumeric keyboard, 10-keypad, and knowledge of correct keyboarding techniques. This course is recommended for all vocational business majors. (Degree Credit)

## OT 081 F Keyboarding Speed and Accuracy (1.5)

One and one-half hour lecture and one hour lab per week. This class teaches students who have mastered correct fingering skills for alphabetic and symbol keys to increase their typing speed and accuracy. This course provides individualized diagnostic and prescriptive work to achieve the speed and accuracy increases. This course can be taken four times for credit.

## OT 125 F Personal/Typing Keyboarding (2)

Two hours lecture and one hour lab per week. A beginning course intended for students who wish to learn alphanumeric keyboarding skills by touch using a microcomputer including the 10-key pad for personal use. This course is recommended for all college students. (CSU) (Degree Credit)

## Paralegal Studies (PLEG)

Business and CIS Division<br>Office: Bldg 300<br>714.992.7032<br>Dean: Ann Hovey<br>Website: http://bizdiv.fullcoll.edu

Associate in Science Degree<br>Paralegal Studies Certificate

## Paralegal Courses

## PLEG 090 F Contemporary Issues in the Law (1-3)

Variable hours of lecture and/or lab. This course offers timely and contemporary law-related topics designed to enhance job skills, expand the student's knowledge of the legal environment, and increase employment opportunities. Unit credit may range from one to three units in any given semester. Consult the class schedule to verify specific topic area and credit offered in a particular semester. May be taken four times for credit.

## PLEG 101 F Introduction to Paralegal Studies (3)

Three hours lecture per week. This course is a practical introduction for those seeking a career as a paralegal. Topics include an overview of the law and our court system, the fundamentals of legal research and writing, an introduction to the use of computers in a law office, professional ethics, and the role of the paralegal in the modern law office. (CSU) (Degree Credit)

## PLEG 104 F Legal Research and Terminology (3)

Three hours lecture per week. This course is an introduction to the terminology unique to the practice of law and the legal environment, and to the techniques and procedures utilized in conducting effective legal research. Topics include an overview of the legal system, legal terminology for all major areas of law, understanding the purpose and function of primary and secondary authority, basics of legal research, and techniques for updating the law. (CSU) (Degree Credit)

PLEG 105 F Introduction to Legal Writing (3)
Prerequisite: ENGL 100 F, PLEG 101 F, and PLEG 104 F, all with a grade of "C" or better
Three hours lecture per week. This course is an introduction to the practical writing skills and necessary analytical skills required in the law office. Topics include analysis of cases, analysis of statutes and administrative regulations, drafting and generating objective documents used in the legal environment, and generating and drafting persuasive documents submitted by attorneys to the trial and appellate courts. (CSU) (Degree Credit)

## PLEG 116 F Computers in the Law Office (3)

Three hours lecture and one hour lab per week. This course acquaints the student with the computer basics and the popular Microsoft Office Suite in use in legal offices. Students will learn Microsoft Office components including Word, Excel, Access, PowerPoint and Outlook, and the Windows operating system as they are used in the day-to-day life of paralegals. (CSU) (Degree Credit)

## PLEG 201 F Civil Litigation I (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per week. This course examines civil court procedures before trial and is designed to provide expertise in drafting legal documents from the inception of the civil action through the pleading stage. Topics include parties to the action, jurisdiction and venue, the summons, defaults, pleadings, and attacking the pleadings. Students are also introduced to the law of evidence. (CSU) (Degree Credit)

## PLEG 202 F Civil Litigation II (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per week. This course continues the study of civil procedures from pretrial through trial, appeals, and collection, emphasizing the drafting of discovery documents. Students gain practical experience in all stages of a civil case. (CSU) (Degree Credit)

PLEG 203 F Personal Injury (3)
Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per week. This course examines those topics that are important in a personal injury practice, including prelitigation investigation, employment of experts, evaluation of damages, settlements, arbitration, and preparing for trial. (CSU) (Degree Credit)

## PLEG 204 F Family Law (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per week. This course provides an overview of family law practice. Students become familiar with family law forms and the preparation of various family law matters. Topics include the initial client interview, preparing pleadings, child and spousal support, custody and visitation, marital property rights and obligations, trial preparation, enforcement procedures, and post-judgment modifications. (CSU) (Degree Credit)

## PLEG 205 F Probate, Wills and Trusts (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per week. This course provides an overview of estate planning and probate practice. Through drafting simple wills and trusts and by lecture, students will become familiar with the specialized documents and procedures of probate practice. (CSU) (Degree Credit)

## PLEG 206 F Bankruptcy Law and Procedure (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of " $C$ " or better
Three hours lecture per week. This course provides an overview of bankruptcy law and practice. Students will become familiar with bankruptcy forms and the federal bankruptcy courts. Topics include the role of the paralegal in bankruptcy, bankruptcy and research, Chapters 7, 11, 12 , and 13 of the bankruptcy code, and examining bankruptcy cases. (CSU) (Degree Credit)

## PLEG 207 F Computer-Assisted Legal Research (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of " $C$ " or better
Three hours lecture per week. This course provides the student with an opportunity to explore and master legal research databases available through on-line and Internet services. In particular, this course will emphasize LEXIS/Westlaw on-line service, Internet accessibility to law libraries, and the use of CD ROM technology in conducting legal research. (CSU) (Degree Credit)

## PLEG 208 F Workers' Compensation Law (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a "C" or better Three hours lecture per week. This course provides an overview of Workers' Compensation practice. Students become familiar with Workers' Compensation forms and the preparation of various Workers' Compensation matters. Topics include a study of the Workers' Compensation system, client interview, initiating benefits to the injured worker, discovery proceedings, vocational rehabilitation, trial preparation, appellate procedure and professional ethics. (CSU) (Degree Credit)

## PLEG 209 F Criminal Law and Procedure (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of " $C$ " or better
Three hours lecture per week. This course provides an overview of criminal law and procedure. Students will become familiar with the substantive and procedural aspects of criminal proceedings in both state and federal courts. Topics include: the role of the paralegal in prosecution and defense of criminal defendants, researching and drafting criminal court documents, constitutional ramifications in criminal courts, and sentencing procedures. (CSU) (Degree Credit)

## PLEG 210 F Paralegal Internship (1-4)

Letter grade or Pass/No Pass option
Prerequisite: PLEG 101 F, PLEG 104 F, PLEG 105 F, PLEG 201 F, and PLEG 202 F, all with a grade of "C" or better
One hour lecture per week and five hours of supervised employment or volunteer work per week in a legal office. An additional five hours per week of supervised employment is required for each additional unit of credit. This course provides vocational learning opportunities for a student through employment in a legal office. (CSU) (Degree Credit)

PLEG 211 F Real Property Law and Procedure (3)
Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per week. This course provides an overview of the law of real property and practice. Students will become familiar with the substantive and procedural aspects of real property law and the transactional requirements of conveyance. Topics include: the role of the paralegal in real estate practice, the appraisal and financing of real estate; researching and drafting real estate litigation and transactional documents, including but not limited to escrow instructions; sale, purchase and exchange agreements, deeds, deeds of trust, promissory notes, leases, and other instruments. (CSU) (Degree Credit)

## PLEG 212 F Medical Records Review (1.5)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
One and one-half hours lecture per week. This course provides an overview of analyzing medical records. Students will be instructed on how to interpret, analyze, and organize complex information found in medical records. The legal implications of medical records for the medical profession will be analyzed as they relate to litigation. (CSU) (Degree Credit)

## PLEG 213 F Employment and Labor Law (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of " $C$ " or better
Three hours lecture per week. This course provides students with an overview of the legal relationship between employer and employee and a basic understanding of employment and labor related law and its impact on the employer/employee relationship. The student will study both federal and state laws applicable to the employer/employee relationship. Areas covered include pre-employment concerns, legal aspects of the employment relationship, discrimination issues, discrimination actions, termination of the employer/employee relationship, the collective bargaining process, employee unions, union certification and decertification and ethical issues. (CSU) (Degree Credit)

## PLEG 214 F Contract Law/Procedure (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per peek. This course provides an overview of the law of contracts, contract law practice and procedure. Students will become familiar with the substantive and procedural aspects of the law relating to contracts and the transactional requirements for the creation, administration, modification, and termination of contracts. (CSU) (Degree Credit)

## PLEG 215 F Discovery in the Electronic Age (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of "C" or better
Three hours lecture per week. This course provides students with an overview of managing document production and organization during litigation. The student will learn how to handle a client's documents, obtain electronic and non-electronic documents from opposing parties and non-parties, index and organize documents as they are received, utilize computer-assisted litigation support programs and use documents at trial. (CSU) (Degree Credit)

## PLEG 216 F Computers in the Law Office II (3)

Three hours lecture per week. This course acquaints the student with the computer basics and application software that is unique to the legal environment and utilized by legal personnel. Students will be exposed to an array of legal software programs that maximizes efficiency in the legal community. Types of programs reviewed include, but are not limited to, programs for document preparation, case management, docketing, retrieval, billing and calendaring system. (CSU) (Degree Credit)

## PLEG 217 F Immigration Law (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of " $C$ " or better
Three hours lecture per week. This course is a practical examination of the immigration and nationality laws of the United States involving a history of immigration migration, the evolution of the country's policies toward aliens and the interplay of the administrative agencies involved in the administration and enforcement of those laws: Justice Department, Labor Department, State Department and Homeland Security. Subjects will include applying for residence and work visas, attaining citizenship, granting of asylum and avoiding deportation and related proceedings. (CSU) (Degree Credit)

## PLEG 218 F Entertainment and Sports Law (3)

Three hours lecture per week. This course is a practical examination of the field of entertainment and sports law in the United States. Students will examine these unique industries from a legal standpoint. Emphasis will be placed on understanding the interrelationships among the various occupations inherent in the business of entertainment and sports. Students will be exposed to contracts that govern both industries and will learn how to draft, interpret and litigate those contracts. (CSU) (Degree Credit)

## PLEG 219 F Intellectual Property (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of " $C$ " or better
Three hours lecture per week. This course is a practical examination of the law of intellectual property, namely, trademarks, copyrights, patents and trade secrets. The methods by which each is created, procedures to register or protect each, duration of rights, protection from infringement, and new and international developments for each of these fields of intellectual property is explored. (CSU) (Degree Credit)

## PLEG 220 F Elder Law (3)

Prerequisite: PLEG 101 F and PLEG 104 F, both with a grade of " $C$ " or better
One and one-half hours lecture per week. This course examines issues regarding law and procedure for the aging population; financial planning covering advanced directives, wills, power of attorney, trusts; interviewing; patient's rights in healthcare decisions; entitlement programs; managed care; social security and elder abuse. (CSU) (Degree Credit)

## PLEG 225 F Law Office Management (3)

Three hours lecture per week. This course is an introduction to the role of the paralegal in law office management. Topics include: the managerial challenges in the legal environment; historical development of law firm management; the four principal managerial activities and roles of the office administrator; comprehensive understanding of financial resources, human resources, and supervision unique to the legal environment. (CSU) (Degree Credit)

# Philosophy and Religious Studies (PHIL) 

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/<br>Philosophy Associate in Arts Degree<br>Religious Studies Associate in Arts Degree

## Philosophy and Religious Studies Courses

## PHIL 100 F Introduction to Philosophy (3)

Three hours lecture with discussion per week. This course studies various viewpoints, problems, and issues regarding human nature, moral and religious understanding, knowledge of self and the world, and other selected topics. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

PHIL 100HF Honors Introduction to Philosophy (3)
Three hours of lecture with discussion per week. This course studies various viewpoints, problems, and issues regarding human nature, moral and religious understanding, knowledge of self and the world, and other selected topics. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## PHIL 101 F Introduction to Religious Studies (3)

Three hours lecture with discussion per week. This course is an introductory study of religion with emphasis on the origins and functions of religion, religious experience, and religious and theological modes of expression. Course content will be drawn from Eastern and Western traditions, ancient, medieval and modern times. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## PHIL 105 F World Religions (3)

Three hours lecture with discussion per week. This course provides an overview of the world religions, with major emphasis upon Judaism, Christianity, Islam, Hinduism and Buddhism. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## PHIL 105HF Honors World Religions (3)

Three hours lecture with discussion per week. This course provides an overview of the world religions, with major emphasis upon Judaism, Christianity, Islam, Hinduism and Buddhism. As an honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## PHIL 135 F Social and Political Philosophy (3)

Three hours of lecture with discussion per week. The course is an introduction to social, psychological, and political philosophies, ancient and modern; inquiry into views of human nature, the nature and varieties of social institutions, the personal and social implications of the human experience, and other selected topics. (CSU) (Degree Credit) AA GE, CSU GE

## PHIL 160 F Introduction to Ethics (3)

Three hours lecture with discussion per week. This course will survey basic ethical theories in modern times in order to show how they have affected analysis of various ethical problems and their solutions both for the individual and societies. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## PHIL 165 F Business and Professional Ethics (3)

Three hours lecture with discussion per week. This course will examine applications of the moral rights and responsibilities of businesses and professions in response to the contemporary problems they face. The topics examined would include bribery, consumer relations, employee relations, kickbacks, whistle blowing, truth and advertising, trader secrets and insider information. (Not currently being offered - if interested, contact Division Office.) (CSU) (UC) (Degree Credit)

## PHIL 170 F Logic and Critical Thinking (3)

Three hours lecture and discussion per week. This course focuses on an understanding of the relationship of language to logic that should lead to the ability to identify and evaluate various inductive and deductive arguments. The course is also concerned that students become aware of semantic confusions and of the nature and importance of definitions. The minimal competence expected of the student is the ability to distinguish fact from judgment, belief from knowledge and skills in inductive and deductive processes, including an understanding of the formal and informal fallacies. The evaluation of an extended argument may be required by the instructor and designed to satisfy the critical thinking requirement for those planning to transfer to the CSU/UC system. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## PHIL 172 F Critical Thinking/Writing (3)

Prerequisite: ENGL 100 F with a grade of " $C$ " or better
Three hours lecture with discussion per week. This course will cover all the standard topics of a traditional critical thinking course: Form vs. Content; inductive vs. deductive logic; validity, truth and soundness or good definitions; and the standard formal and informal fallacies as reflected in evaluative writing. Progress toward the refining of various writing skills will be evaluated in the writing and re-writing of the extended argument as well as other areas of the course. This course is specifically designed to meet the IGETC critical thinking/writing requirement. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## PHIL 195 F Women's Issues in Philosophy (3)

Three hours lecture with discussion per week. This course will look at philosophical issues with which women in philosophy are concerned, such as theoretical accounts of the relations between men and women, theories of knowledge, world views, and the question of social justice. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

PHIL 198AF The Holocaust (3)
Three hours lecture with discussion per week. This course will provide a review of the forces that resulted in the Jewish experience known as the Holocaust, the events that transpired during this period, and subsequent Jewish life after the Holocaust. In addition, reflections by both Jews and non-Jews on the Holocaust will be examined, as well as reflections on genocide in general. (CSU) (Degree Credit)

## PHIL 200 F Introduction to Christianity (3)

Three hours lecture per week. This course will provide an introduction to the Christian religion, giving attention to the history of its development. Its scriptures, rituals, beliefs will be examined, along with attention given to the important persons, groups, and events which have developed among the Roman, Orthodox, and Protestant communions of Christianity. (CSU) (UC) (Degree Credit) CSU GE

## PHIL 201 F History of Philosophy:

## Ancient and Medieval (3)

Three hours lecture with discussion per week. This course is a historical introduction to the western philosophic tradition. Selected philosophers will be examined from each of the following periods: Ancient Greek and Medieval. (CSU) (UC) (Degree Credit) CSU GE

## PHIL 202 F History of Philosophy: Modern (3)

Three hours lecture with discussion per week. This course is a historical introduction to the western philosophic tradition. Selected philosophers will be examined from each of the following periods: Modern and Contemporary. (CSU) (UC) (Degree Credit) CSU GE

## PHIL 210 F Introduction to Judaism (3)

Three hours lecture per week. The course will provide an introduction to the religion of Judaism, with emphasis given to its historical development, scriptures, laws, rituals, customs, and theology. Attention will also be given to the modern developments of Judaism. (CSU) (UC) (Degree Credit) CSU GE

## PHIL 225 F The American Religious Experience (3)

Three hours lecture with discussion per week. This course provides an overview of the religious life in America, with the emphasis upon how the American cultural experience has shaped the religions of Africa, Europe and Asia in their American manifestations. Particular focus will be given to religious thinking, ethics, rituals, and institutional forms. (CSU) (UC) (Degree Credit)

## PHIL 250 F The Religion of Islam (3)

Three hours lecture per week. This course will provide an introductory study of the religion of Islam, with emphasis upon its history, its main teachings, and its major practices. Topics to be studied include: the rise and spread of Islam, scriptures, law, theology and philosophy, mysticism, rituals, and modern developments. (CSU) (UC) (Degree Credit) CSU GE

## PHIL 270 F Introduction to the Asian Religions (3)

Three hours lecture per week. This course provides an overview of the variety of religious traditions and communities found throughout Asia. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) CSU GE, MULT CULT REQ

## PHIL 299 F Philosophy Independent Study (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken three times for credit. (CSU) (UC review required) (Degree Credit)

## Photography (PHOT)

Technology and Engineering Division<br>Office: Bldg 700, Room 714<br>714.992.7122<br>Dean: Scott McKenzie<br>Website: communications.fullcoll.edu

## Pending State Approval <br> Associate in Arts Degree, Photography *NEW* <br> Professional Photography Certificate *NEW*

## Photography Courses

## PHOT 100 F Basic Photography (3)

Letter Grade or Pass/No Pass Option
Three hours lecture per week. This course is for beginning photographers, and covers basic camera operation, composition, color, lighting, landscapes, portraits, night photography, close-ups, architectural work and photo essays. Students must provide their own camera as well as film and processing. This class will not utilize the darkroom. (CSU) (Degree Credit) AA GE, CSU GE

## PHOT 101 F Introduction to Photography (3)

Two hours lecture and four hours lab per week. This course covers the historical, cultural and aesthetic foundations of photography. Students have the opportunity to acquire knowledge of both traditional and digital photography. Traditional film students must provide their own 35 mm cameras with full manual capabilities and digital students may use a variety of digital point and shoot cameras as well as DSLRs. Course may be taken twice for credit. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## PHOT 103 F Intermediate Photography (3)

Prerequisite: PHOT $101 F$ with a grade of "C" or better
Two hours lecture and four hours lab per week. This course is an introduction to professional photography. Use of 4" $\times 5$ " camera, and studio lighting techniques will be emphasized. Students will learn to use the camera and studio lighting to photograph products, people and architectural subjects. Students must provide their own 35 mm camera with adjustable aperture, shutter speed and focus. (CSU) (Degree Credit)

## PHOT 104 F Wedding Photography (3)

Advisory: PHOT 101 F or PHOT 111 F or PHO 112 F or demonstrate competency in performing a variety of basic camera functions.
Two hours lecture and four hours lab per week. This course is designed to introduce the student to the aesthetic concepts, basic skills, and techniques used by wedding photographers. Students will acquire hands-on knowledge of photographic applications used in wedding photography. Students must provide their own cameras with full manual operations and capable of using an external flash. Either film or digital cameras may be used. Students are also required to have a strong understanding of composition, aesthetic values and photographic criticism. Course may be taken four times for credit (CSU) (Degree Credit)

## PHOT 109 F Portrait Photography (3)

Prerequisite: PHOT 101 F with a grade of "C" or better
Two hours lecture and three hours lab per week. This course is designed to give the student a working knowledge of portrait styles and techniques. The student will work with both natural and artificial lighting and learn the possibilities and limitations of both. Students will have an opportunity to investigate and imitate the styles of well-known portrait photographers. Students must provide their own 35 mm camera with adjustable aperture, shutter speed and focus. Course may be taken three times for credit. (CSU) (Degree Credit)

## PHOT 111 F Introduction to Photography from Analog to

 Digital (3)Two hours lecture and four hours lab per week. This beginning photography course focuses on the technical and historical aspects of photography from analog to the emergence of digital photography and new media. The course will include lectures and discussions about composition and content, a detailed comparison of the differences and similiarities between analog and digital camera use with an emphasis on digital imaging. Mixed media and experimental forms of photography will also be discussed. A variety of point and shoot cameras may be used. Course may be taken four times for credit. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## PHOT 112 F Introduction to Professional Digital Photography (3)

Two hours lecture and four hours lab per week. The course covers an introduction to the basic functions and operations of the digital camera. The course covers the historical, cultural, and aesthetic foundations of photography. The student also explores the emergence and significance of digital technology into photography. Students may use a variety of digital cameras from point to shoot as well as Digital SLR's. Course may be taken four times for credit. (CSU) (Degree Credit)

## PHOT 114 F Professional Portrait

## Photography I (3)

Advisory: PHOT 101 F or PHOT 111 F or PHOT 112 F or demonstrate competency in performing various basic camera functions
Two hours lecture and four hours lab per week. Emphasis will be placed on portrait photography using strobe lighting, shooting on location, posing, and working with color photography. Photographic subjects will include beauty, theatrical, commercial, fashion, family, and the executive portrait. Students are required to have a camera with full manual capabilities and that is able to use an external flash. Film or digital cameras may be used. Students are also required to have a strong understanding of composition, aesthetic values and photographic criticism. Course may be taken four times for credit. (CSU) (Degree Credit)

## PHOT 196 F Communications Seminars (.5-4)

Prerequisite: JOUR 102 F or PHOT 101 F or CRTV 235 F
Lecture and lab hours will vary according to the nature of the seminar. Communications Seminars are courses designed to expose the students to up-to-date equipment, methods, techniques and materials. These courses offer the student opportunity for specialized training in greater depth than can be offered in a general course. These courses will vary from semester to semester depending on student interest, new developments in industry, and need for specialized training. Communications Seminars will be offered in photography, journalism, and radio/television. Course may be taken four times for credit. (CSU) (Degree Credit)

PHOT 216 F Advanced Digital Photography (3)
Advisory: PHOT 111 F or PHOT 112 F or demonstrate competency in performing a variety of basic digital camera functions.
Two hours lecture and four hours lab per week. This course is designed to provide the student with advanced knowledge of digital photography. The integration of technical skills and aesthetic expression will be emphasized. Students will explore a variety of subjects including fashion, portraiture, Industrial Scientific, and fine-art photography. Students may use a variety of digital cameras including point and shoot as well as digital D'SLR'S. Students are also required to have a strong understanding of composition, aesthetic values, and photographic criticism. Course may be taken four times for credit. (CSU) (Degree Credit)

## PHOT 219 F Photojournalism (3)

Two hours lecture and three hours lab per week. Development of basic techniques of producing black-and-white still photographs with emphasis on journalism requirements including the use of cameras, materials, and processes in darkroom procedures. (CSU) (Degree Credit)

## PHOT 221 F Studio Specialties I (3)



Two hours lecture and four hours lab per week. An advanced course for students to learn studio practices and lighting techniques. Students will practice studio techniques for a variety of photographic subjects that include commercial table top, architectural, publicity, and fashion. Emphasis will be on the use of strobe lighting, mixed lighting, and special effects. Camera format will range from 35 mm to $4 X 5$. The course incorporates both traditional and digital techniques. Students must have a camera with full manual adjustments and that is capable of using external flash. Students are also required to have a strong understanding of composition, aesthetic values, and photographic criticism. Course may be taken four times for credit. (CSU) (Degree Credit)

## PHOT 290 F Internship in Photography (2-4)

One hour lecture per week and five hours supervised employment or unpaid internship per week in the field of photography. An additional five hours per week of supervised employment or unpaid internship for each additional unit of credit. This course offers career development opportunities for students and industry professionals who need to strengthen or broaden their skills to retain their current position or wish to advance in their current careers. Students obtain vocational learning opportunities through employment/internships photography and allied areas. Course may be taken four times for credit. (CSU) (Degree Credit)

## Physical Education (PE)

Physical Education Division<br>Office: Bldg 2200<br>714.992.7045<br>Dean: Peter Snyder<br>Website: pe.fullcoll.edu

Associate in Arts Degree - Physical Education<br>Associate in Science Degree - Physical Education -<br>Fitness<br>Aquatic Specialist Certificate<br>Athletic Coach Certificate<br>Group Fitness Instructor Certificate<br>Outdoor Recreation and Safety Certificate<br>Personal Trainer Certificate<br>Therapeutic and Sports Massage Therapist -<br>Level I Certificate<br>Therapeutic and Sports Massage Therapist -<br>Level II Certificate

## Physical Education Courses

## PE 100 F Adaptive Physical Education Weight Training (1)

Three hours lab per week. This course is designed to give the disabled student the opportunity to participate in resistive exercises with weights. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 102 F Yoga (1)

Three hours lab per week. This is an overview course in yoga, an integrated study of health. It involves the practice of breathing techniques, hatha yoga postures (asanas), meditation, and relaxation. Emphasis is on practicing the principles of pranayama (breathing) and deep relaxation to reduce stress; improve concentration, circulation, and flexibility; and unify body, mind, and spirit. The hatha yoga portion will also help to tone and strengthen muscles. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 103 F Aikido (1)

Three hours lab per week. Aikido is a relatively modern Japanese martial art based upon nonresistance rather than strength. It is a nonaggressive, non-competitive art based upon a philosophy that stresses harmony with nature and control of body and mind. Comparison and introduction to related forms of throwing arts is included. Self-confidence is enhanced through the study of technique. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 104 F Spinning (formerly PE 104AF) (1)

Three hours lab per week. Spinning is a unique, indoor, group stationary cycling program. This efficient, high-energy group exercise integrates music, camaraderie and visualization in a complete body-mind exercise routine. This philosophy of being mentally and physically fit is the basis of spinning. Spinning emphasizes everyone's individual needs, regardless of athletic ability, taught in a group atmosphere. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 105 F Badminton (1)

Three hours lab per week. There will be an analysis of fundamental strokes with emphasis on court strategy for singles and doubles play. Rules, court etiquette, and different types of tournaments will be introduced to the class. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 107 F Table Tennis (1)

Three hours lab per week. This course offers students the opportunity to learn and improve the essential strokes of table tennis. Emphasis is on game strategies for singles and double play. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 108 F Bowling (1)

Three hours lab per week. This course is designed to develop sufficient knowledge and skill for successful participation in recreational, league and tournament bowling. Emphasis will be placed on the rules, scoring, etiquette, safety, mechanics, ball dynamics and strategy. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 110 F Pilates (1)

Three hours lab per week. A course in alignment and correctives work based on exercises and concepts developed by Joseph H. Pilates. The course will include "mat work" and will emphasize exercise for improved body alignment, strength, flexibility, control, coordination and breathing. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 111 F Decathlon (1)

Two hours lab per week. Instruction and participation in the fundamentals of track and field. The events covered are sprints, broad jump, high jump, shot put, discus, distance and middle-distance running, pole vault, and javelin. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 112 F Fencing (1)

Two hours lab per week. Instruction will include basic positions weapon, simple and compound actions, defenses, drills, and activity. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 113 F Billiards (1)

Three hours lab per week. This course will emphasize walking for health and fitness for men and women who are interested in instruction and practice in cardiovascular walking. The class is designed to decrease the risk of coronary heart disorders by increasing heart efficiency, vital lung capacity, and knowledge of each through aerobic and anaerobic conditioning. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 114 F Cardiovascular Conditioning (1)

Three hours lab per week. A program of personalized exercises designed for the student interested in achieving physical fitness through a program of cardiovascular conditioning. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 115 F Golf (1)

Two hours lab per week. The class will stress rules, fundamentals and etiquette of the game of golf. Facility use fee required. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 117 F Gymnastics (1)

Three hours of lab per week. This course offers the students the opportunity to explore the possibilities of human motion in gymnastic framework. This course is designed to instruct students in a progressional motor learning experience. The skill range is from simple to complex and includes all women's and all men's apparatus and tumbling. The course integrates the beginning, intermediate and advanced level gymnastic students together in an educational environment. This course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 120 F Mountain Biking (1)

Two hours lab plus one hour arranged per week. This course examines and analyzes the judgment, knowledge and skill development necessary for safe recreational mountain biking. This course provides hands on experience and instructional techniques required for participation on various Orange County trails. Fee for bike rental if you do not own your own bike. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 121 F Walking for Fitness (1)

Three hours lab per week. This course will emphasize walking for health and fitness for men and women who are interested in instruction and practice in cardiovascular walking. The class is designed to decrease the risk of coronary heart disorders by increasing heart efficiency, vital lung capacity, and the knowledge of each through aerobic and anaerobic conditioning. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 122 F Surfing (1-2)

Advisory: Swim 50 yards and tread water for five minutes
One half to one hours lecture and one and one half to three hours lab per week. This course offers surfers the opportunity to learn and improve the skills of wave riding. Examination and analysis of paddling, wave selection, water safety, equipment, tides, current, and etiquette are emphasized for long boarding and short boarding. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 123 F Outrigger Canoeing (1-2)

Advisory: Swim 50 yards and tread water for three minutes One-half to one hours lecture and one and one-half to three hours lab per week. This is an activity course designed to introduce and examine the Polynesian tradition of canoeing. Six-person outrigger canoes, and one- and two-person outriggers are used to introduce and develop individual and team skills. This course includes units on water safety; basic technique; equipment examination; Polynesian history and tradition of the outrigger; roles and responsibilities with each "seat" in the six-person canoe. This class emphasizes a hands-on experience that may prepare students to pursue interests in club competition or other water activities. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 124 F Kayaking (1-2)

Advisory: Swim 50 yards and tread water for three minutes
One hour lecture, two hours lab plus one hour arranged per week. Kayaking examines and analyzes the judgment, knowledge, equipment, and skill development necessary for safe flatwater and ocean kayaking. This course includes units on water safety; basic technique; and how to plan a kayaking trip. This class emphasizes a hands-on experience that may prepare students to pursue interests in white water kayaking and other water activities. Course may be taken four times for credit. $\$ 15$ Facility use fee required. (CSU) (UC Credit Limitation) (Degree credit) CSU GE

## PE 126 F Beach Volleyball (1)

Two hours lab plus one hour arranged per week. This course provides basic instruction and strategies in beach volleyball. Designed to develop basic skills, knowledge of rules, team strategies and desire for future participation during leisure time. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 127 F Racquetball - Indoors (1)

Three hours lab per week. This course offers students the opportunity to learn and improve the essential strokes of racquetball. Emphasis is on skill development, knowledge of rules and basic strategies for singles and doubles play. $\$ 50$ facility use fee required. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 129 F Step Aerobics (1)

Three hours lab per week. This course will provide vigorous aerobic activity through coordinated stepping movements. The class will be held in a musical setting with emphasis on cardiovascular improvements, muscle development, and an increased awareness of body composition. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 130 F Advanced Fitness Training (2)

One and one-half hour lecture and one and one-half hour lab per week. This course is designed to offer students the core knowledge and skills necessary for instructing group exercise classes and for individuals to develop advanced aerobic skills. Lectures include information on physiology kinesiology and biomechanics of exercises along with safety and sports nutrition. The lab consists of practical application of exercise programming along with instructional experience. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 131 F Bodyboarding (1-2)

One-half to one hour of lecture and one and one-half to three hours of lab per week. This course offers bodyboarders the opportunity to learn and improve the skills of wave riding. Examination and analysis of paddling, kicking, wave selection, water safety, equipment, tides, current and etiquette are emphasized for bodyboarding. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 132 F Skiing (1)

Two hours lab plus one hour arranged per week. One hour lecture and one hour lab per week. This course is designed to teach the beginning and intermediate skier the American technique of skiing. Facility use fee required. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 133 F Snowboarding (1)

One half hour lecture and one and one half hours lab per week. This course is designed to teach the basic skills of snowboarding. Emphasis on correct body posture in turns and curves, speed control, and basic jumps. Discussion on selection of equipment and apparel, care of equipment, safe snowboarding and back country survival will also be included. Facility fee required. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 134 F Swimming (1)

Two hours lab per week. This course emphasizes developing fundamental skills of swimming. All strokes are taught along with elementary diving and basic survival skills. Endurance training and cardiovascular fitness will be discussed. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 136 F Springboard Diving (1)

Three hours lab per week. Instruction in forms of springboard diving emphasizing balance, strength, flexibility, coordination, and kinesthetic ability. The anaerobic workout includes the techniques of approach steps, hurdle and takeoffs. Entries into the water and mid-air maneuvers will be identified and practiced on one meter and three meter diving boards. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree credit) CSU GE

## PE 137 F Triathlon (1)

Three hours lab per week. This course provides cardiovascular fitness training and nutritional program information to compete successfully in a triathlon. This class offers techniques in swimming, biking and running for ultimate performance. Bike rental fee is required if you do not own your own bicycle. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree credit) CSU GE

## PE 138 F Ultimate Frisbee (1)

Three hours lab per week. This course is designed to teach the basic skills of the Frisbee disc throw as well as an introduction to Frisbee golf, Frisbee football, and Frisbee basketball. Course may be taken four times for credit. (CSU) (UC Credit Limitation) CSU GE

## PE 139 F Tennis (1)

Three hours lab per week. This course offers students the opportunity to learn and improve the essential strokes of tennis. Emphasis is on skill development, knowledge of rules and basic strategies for singles and doubles play. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 141 F Tennis Workshop (.5-2)

Two hours lab per week for each unit of credit. This class is designed for those students desiring instruction from beginning to intermediate to advanced instruction in tennis. The class gives students the opportunity to put tennis techniques into practice through placement in the various levels of tennis ability. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 142 F Mountaineering/Rock Climbing (1)

One hour lecture and one hour lab per week. There will be instruction and participation in the fundamentals of rock climbing with practice on rope handling, knot tying and climbing styles. Discussion will include use of equipment, environmental concerns, and survival techniques. Facility use fee required. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 144 F Volleyball - Recreational (1)

Three hours of lab per week. This course provides basic instruction and strategies in basic skills, rules and etiquette in volleyball. Students will experience improvement through supervised instruction and participation. This course may be taken two times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

PE 145 F Volleyball - Intermediate/Advanced (1)
Three hours lab per week. This course is designed for experienced volleyball players and is designed to give instruction in advanced techniques and game strategies. This course may be taken twice for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 147 F Relaxation and Flexibility Fitness (1)

Three hours lab per week. This course demonstrates the benefits of stretching and relaxation towards a physically and mentally fit lifestyle. Flexion exercises and relaxation techniques are covered as well as their practical application to daily activities. Instruction will be given in the development of an individual program for each student. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree credit) CSU GE

## PE 148 F Non-Impact Aerobics (1)

Three hours lab per week. This course consists of group and individual exercise program without jogging, jumping or other jarring movements. Emphasis is on cardiovascular development through static and locomotive movements set to music. A class designed for first-time aerobicisers of any age, or those medically restricted or overweight. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree credit) CSU GE

## PE 149 F Swim for Fitness (1)

Three hours lab per week. This course is designed to increase the knowledge of the cardiovascular system through the use of aerobic workouts. Swimming strokes will improve through endurance and repetitive training. Participants seeking a fitness program may expect to improve their overall fitness levels. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 150 F Rhythmic Aerobic Exercise (1)

Three hours lab per week. This course is designed for a group and individual exercise program. Emphasis in class will be on cardiovascular development through rhythm movements. Activities will include stretching, walking, running, and floor exercise in a dance setting to music. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree credit) CSU GE

## PE 151 F Water Aerobics/Pool Exercise (1)

Two hours lab per week. This is a fitness and recreational exercise program done in the water. Various water exercise programs are included, such as aerobics to music, flexibility activities, and conditioning activities designed for special needs. (Especially recommended for 40+ individuals and those with handicaps or movement limitations.) Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 152 F Fitness Training Lab (Circuit) (.5-2)

Open Entry/Open Exit
Letter Grade or Pass/No Pass Option
This course is designed as an open entry lab. The equipment and routine utilized in the circuit training facility is designed with the non-athlete in mind. Emphasis is placed on good muscle tone and cardiovascular fitness. This type of training gives maximum return in a controlled workout. Flexible hours and variable units. 20 hours required for each half unit. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

PE 154 F Fitness Testing w/Exercise Prescription (2)
Two hours lecture and one hour lab per week. Classroom lecture section will provide methods and concepts of lifetime fitness and nutritional understanding based on fitness needs. Students will learn, on an individual basis, the practical techniques for evaluating physical fitness status. With the use of computer analysis, the student will be exposed to several programs for aiding the individual in becoming fit and more healthy and efficient in daily life. The lab section of the class will involve the student in a testing and evaluation program to analyze their needs for personal fitness and nutritional guidelines. Each student will help develop, through these methods, a personal individualized prescription program to fit their needs for a year round fitness program. Course may be taken four times for credit. (CSU) (Degree Credit) CSU GE

## PE 155 F Aquatic Conditioning for Seniors (1)

Two hours lab per week. This course is designed to develop and maintain physical fitness through swimming. Emphasis will be placed on endurance training for improved cardiovascular fitness. Activity designed for, but not limited to, senior citizens. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 158 F Personalized Fitness (1)

Three hours lab per week. This course is a supervised, group-circuit exercise program using a variety of exercise equipment that focuses on individual needs which includes the various principles and techniques of exercise as they relate to the older adult. Individual assessments will include review of medical history, resting and exercising heart rate, blood pressure, and body weight. $\$ 15$ lab fee payable in class. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree credit) CSU GE

## PE 159 F Strength Training (Olympic Weights) (.5-2)

Open Entry/Open Exit
Letter Grade or Pass/No Pass Option
Flexible hours and variable units. Eighteen hours required for each $1 / 2$ unit up to 72 hours for a maximum of two units. An open-entry lab experience for those people who want to get maximum physical return for a limited time invested. This course is designed to provide instruction and supervision of students with individualized strength programs using Olympic weights and nautilus apparatus. It is for men and women of all age groups who are interested in muscle toning, muscle rehabilitation, strength increases and body building. Workout times are adjusted to the student's schedule. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 160 F Basketball - Recreational (1)

Two hours lab per week. This course provides instruction and strategies in the basic skills, rules and etiquette of basketball. Students will receive improvement through supervised instruction and participation. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 161 F Body Conditioning and Fitness (1)

Three hours lab per week. This course will focus on individual exercise for contouring, conditioning, posture, weight training, aerobics and overall fitness. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 162 F Conditioning for Athletes - Strength (1)

Three hours lab per week. This course is designed to organize and implement individual conditioning programs for the team and individual sport athletes, primarily women. The program includes analysis and appraisal of strength, cardiovascular, and flexibility of each athlete along with program prescriptions. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

PE 163 F Kickboxing (1)
Two hours lab per week. Instruction in forms of kick-boxing that stress cardiovascular endurance, strength development, and improved flexibility. The aerobic workout will include influences from several martial arts. For interested students, the sparring and self-defense aspects of kickboxing will be included. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 164 F Tai Chi Chuan (1)

Two hours lab per week. Instruction in the 24-style of tai chi chuan, a short form of the health exercise and martial art of tai chi that can easily be learned in one semester. Repeat students have the option of learning the Yang style long form and weapon forms. The course also covers tai chi philosophy and the application of tai chi to daily life. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 165 F Lifetime Fitness (1)

Two hours lab per week. This class provides cardiovascular fitness training, strength and conditioning exercises and nutrition programs to improve in the components of health related physical fitness. Each student will develop an individual program suited to his/her goals. Lab will cover cardio and strength training exercises, nutritional links, exercise goal setting and adaptation. Course may be taken four times for credit. (CSU) (UC Credit limitation) (Degree Credit) CSU GE

## PE 166 F Shao-lin Kung Fu (2)

One hour lecture and three hours lab per week. Instruction in traditional Shao-lin long-fist kung fu, including basics, forms, self-defense and joint locks, as well as the philosophy relevant to martial arts and daily life. Repeat students have the option of testing for rank and advancing towards black belt. The course develops skills and abilities applicable for enhancing all aspects of life (self-confidence, self-discipline, enhanced focus and mental concentration), as well as self-defense abilities. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 167 F Cardio Kickboxing Aerobics (1)

Two hours lab plus one hour arranged per week. This course is designed for a group and individual exercise program. Emphasis in class will be on cardiovascular development through basic kick-boxing aerobic movements. Activities include stretching, strength training, and basic kickboxing exercise (no physical contact) set to music. This course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 168 F Boot Camp Workout (1)



Three hours lab per week. This course will focus on individual exercises including obstacle course, calisthenics, conditioning, weight training, aerobics, yoga, Pilates and overall fitness. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 171 F Soccer - Recreational (1)

Three hours lab per week. Instruction on the basic skills of soccer: technique, tactics and rules of the game. The workout will be both aerobic and anaerobic and designed primarily for women. The course will include interclass competition. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 172 F Softball - Recreational (1)

Two hours lab per week. This course is designed to increase the knowledge of softball strategy through the use of drills. The softball players fundamental skill level will improve through repetition and technique development in throwing, catching, hitting, fielding, base running and bunting. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 174 F Inline Skating (1)

Three hours lab per week. This course is designed to teach the basic skills of inline skating. The skills will include proper skating technique, tuning and stopping. Training and cardiovascular fitness will be discussed. Skate rental fee if you do not own your own skates. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 175 F Volleyball - Team Development (.5-2)

One and one-half to six hours lab per week. This course is designed for the potential intercollegiate athlete with advanced skill and knowledge in volleyball. Students will receive training in fundamentals and strategies necessary for successful competition. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 179 F Spirit Squad (2)

## Prerequisite: Audition

Ten hours lab per week. This course is designed for cheer and dance team members. The focus is on the skills required for a successful spirit squad individual and group. The class will emphasize the fundamentals of tumbling, stunts, pom-pom and dance technique, choreography, competition, leadership skills, and crowd motivation. Performance at school athletic events and campus functions is mandatory. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 180 F Baseball (1)

Two hours lab and one assigned per week. This course has an emphasis on learning the fundamental aspects of baseball. There will be instruction in all areas of baseball, including: hitting, bunting, fielding, throwing, running, and sliding. There will also be emphasis on the offensive and defensive fundamentals. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 181 F Basketball (1)

Two hours lab per week. The course stresses development of the fundamental skills of basketball and promotes body conditioning. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 182 F Body Building/Body Development and Weight Lifting (1)

Two hours lab per week. Class instruction includes those resistive exercises designed to develop and increase size and strength of muscle tissue with emphasis on safe and proper weight lifting techniques. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 183 F Conditioning for Athletes (1)

Three hours lab per week. This course is designed for instruction and practice in weight training, weight lifting, anaerobic and aerobic fitness, and flexibility for competition in various intercollegiate sports primarily for men. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 184 F Dodgeball (1)

Three hours lab per week. This class will provide instruction and practice in the techniques of dodgeball. Course will develop skills, provide knowledge of the rules, teach students to analyze techniques, solve tactical problems and improve physical fitness. Teamwork and strategies will be emphasized while participating in several varieties of dodgeball. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 185 F Football - Defense (3)

Nine hours lab per week. This class is designed to give students the proper knowledge and mental preparation necessary to play collegiate football, specifically at the defensive position. Emphasis is placed on acquiring specific position skill, while participating in a team environment. The students will be instructed on how to participate within the rules and safety procedures set for the by the NCAA and California Commission on Athletes (COA). Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 186 F Football - Offense (3)

Nine hours lab per week. This class is designed to give students the proper knowledge and mental preparation necessary to play collegiate football, specifically at the offensive position. Emphasis is placed on acquiring specific position skill, while participating in a team environment. The students will be instructed on how to participate within the rules and safety procedures set for the by the NCAA and California Commission on Athletes (COA). Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 187 F Physical Fitness (1)

Two hours lab per week. Physical fitness for men would be achieved through the use of resistive exercises and body-building routines. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 188 F Self-Defense - Boxing (1)

Three hours lab per week. This course is designed to teach the students the fundamentals of boxing and self defense. Instruction will be given on the rules and regulations of boxing. The students will learn the necessary skills for participation in amateur boxing. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 189 F Soccer (1)

Three hours lab per week. Instruction on the basic skills of soccer: technique, tactics and rules of the game. The workout will be both aerobic and anaerobic and designed primarily for men. The course will include interclass competition. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 191 F Volleyball: Player Development (.5-2)

One and one-half to six hours lab per week. This course is designed for the potential intercollegiate athlete with advanced skill and knowledge in volleyball. Students will receive training in fundamentals and strategies necessary for successful competition. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 192 F Water Polo (1)

Advisory: Ability to swim 50 yards and able to tread water for 3 minutes
Three hours lab per week. Instruction will be given in the fundamentals of water polo to include physical skill development, conditioning, game strategy, and terminology. The course is designed to provide aquatic game activity for the intermediate and advanced swimmer and to develop a greater understanding of the game of water polo. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 193 F Weight Training/Weight Lifting (1)

Three lab hours per week. This course provides instruction in strength training and focuses on weight lifting techniques that will produce muscle endurance and muscle strength. The class will also teach and demonstrate Olympic style lifts. Each student will develop an individual program. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 194 F Wrestling (1)



Three hours lab per week. This course will include instruction in the fundamental skills and knowledge necessary for successful participation in amateur wrestling. The class will develop endurance, flexibility and strength. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 195 F Championship Putting (1)

Two hours lab plus one hour arranged per week. The class will stress rules, fundamentals and etiquette of putting. Facility use fee required. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 196 F Swimming - Recreational (1)

Advisory: Ability to swim
Three hours lab per week. Intermediate instruction and practice will be given in the fundamentals of swimming, including beginning diving and water-safety instruction. This course is designed to develop proficiency in basic strokes to meet prerequisite for advanced Lifesaving and WaterSafety Instruction (WSI) courses. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 197 F Flag Football (1)

Three hours per week. This course provides basic instruction in the strategies, fundamentals, teamwork execution and the rules of flag football. Emphasis will be placed on offensive, defensive and special team assignments and responsibility. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 199 F Physical Education Independent Study (1-2)

Three to six hours lab per week. Student should choose an interest area and schedule conferences. This class is for students who wish to participate in acceptable non-curricular physical activities or who wish to work in the field as a teaching assistant or official or to study special programs in physical education. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

FOR PE 202 F through PE 222 F: In order to be eligible for athletic competition, students must meet the eligibility requirements of the Southern California Football Association and the Orange Empire Conference. Daily after-school practice or play for a minimum of ten hours per week. The following intercollegiate sports offer credit. Physical Education majors - see counselor for transfer requirements.

## PE 202 F Baseball - Men (2)

Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 203 F Basketball - Men (2)

Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 204 F Basketball - Women (2)

## Advisory: Tryout

Ten hours lab per week. This course is designed for advanced female basketball players wanting to participate on the intercollegiate basketball team. Daily practice or a minimum of ten hours per week is required. In order to be eligible for athletic competition, students must meet the eligibility requirements of the CCCAA and Orange Empire Conference. Student athlete will need to pass the sports physical administered by a team physician prior to competition. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 205 F Cross-Country - Men and Women (2)

Ten hours lab per week. In order to be eligible for athletic competition, students must meet the eligibility requirements of the CCCAA and the Orange Empire Conference. Student athletes will need to pass the sports physical administered by a team physician prior to competition. Daily after-school practice or play for a minimum of ten hours per week. The following intercollegiate sport offers credit. NOTE: Physical Education majors, see counselor for transfer requirements. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 207 F Football (2)

Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 208 F Golf - Intercollegiate (2)

Ten hours per week. In order to be eligible for athletic competition, students must meet the eligibility requirements of the Orange Empire Conference, including passing a physical exam given by the team doctor. Daily after-school practice or play. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 209 F Soccer - Intercollegiate (2)

Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 210 F Softball - Women (2)

Advisory: Subject to audition
Ten hours lab per week. This course is designed for advanced female softball players to participate on the intercollegiate softball team. Daily practice or a minimum of 10 hours per week is required. In order to be eligible for athletic competition, students must meet the eligibility requirements of the CCCAA and the Orange Empire Conference. Student athletes will need to pass the sports physical administered by a team physician prior to competition. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

NOTE: COA (Commission on Athletics) has been changed to CCCAA (California Community College Athletic Association)

## PE 211 F Swimming - Men (2)

## Advisory: Try-out required

Ten hours per week. In order to be eligible for athletic competition, students must meet the eligibility requirements of the CCCAA and the Orange Empire Conference and the Commission on Athletics. Student athlete will need to pass the sports physical administered by a team physician prior to competition. Daily after-school practice for a minimum of ten hours per week. Team standards and expectations established. Competition versus local college teams. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 212 F Swimming - Women (2)

Ten hours per week. In order to be eligible for athletic competition, students must meet the eligibility requirements of the CCCAA and the Orange Empire Conference and the Commission on Athletics. Student athlete will need to pass the sports physical administered by a team physician prior to competition. Daily after-school practice for a minimum of ten hours per week. Team standards and expectations established. Competition versus local college teams. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 214 F Intercollegiate Tennis (2)

This course is designed for the advanced tennis player wanting to participate on the intercollegiate tennis teams. In order to be eligible for athletic competition, students must meet the eligibility requirements of the Orange Empire Conference. Daily after-school practice or play for a minimum of ten hours per week. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 215 F Track - Men/Women (2)

Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 216 F Outrigger Canoeing - Team Competition Women (2)

Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 218 F Intercollegiate Women's Volleyball (2)

Advisory: Try-out required
Ten hours per week. Students must meet the eligibility requirements of the Orange Empire Conference. Student athlete will need to pass the sports physical administered by a team physician prior to competition. Students are required to participate in daily practice and required contests for a minimum of ten hours per week. This course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 219 F Intercollegiate Water Polo (2)

Advisory: Ability to swim 50 yards and tread water three minutes.
Ten hours per week. This course is designed for the competitive student athlete participating in water polo. Course content will include aspects of competitive training such as weight training, repetitive swim sets, offensive and defensive game strategy, and intercollegiate contests. All participants will need to meet eligibility requirements of the CCCAA. They will also be governed by their given conference rules and regulations. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 222 F Badminton - Women (2) <br> Advisory: Audition

Ten hours of lab per week. In order to be eligible for athletic competition, students must meet the eligibility requirements of the Orange Empire Conference. Also, candidates must pass a physical exam. A tryout is required to demonstrate skills and badminton ability. Daily practices and games per schedule. Course may be taken three times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 223 F Pilates Mat I (1)



Three hours lab per week. A course in alignment and correctives work based on exercises and concepts developed by Joseph H. Pilates. The course will include beginning level mat work, and will emphasize exercises for improved body alignment, strength, flexibility, control, coordination and breathing. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 224 F Pilates Mat II (1)

Prerequisite: PE 223 F with a grade of " $C$ " or better


Three hours lab per week. A course in alignment and correctives work based on exercises and concepts developed by Joseph H. Pilates. The course will include advanced level mat work using mats, rings, and foam rollers, and will emphasize exercises for improved body alignment, strength, flexibility, control, coordination and breathing. This course may be taken two times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 225 F Pilates Reformer (2)

Prerequisite: PE 224 F with a grade of " $C$ " or better
Three hours lab per week. A course in alignment and correctives work based on exercises and concepts developed by Joseph H. Pilates. The course will include exercises in mat work and on the reformer, and will emphasize exercises for improved body alignment, strength, flexibility, control, coordination and breathing. This course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 235 F First Aid, CPR, and Safety Education (2)

Two hours lecture per week. This course clarifies when and how to call for emergency medical help, eliminating the confusion that is frequently a factor in any emergency. This course also emphasizes the importance of a safe, healthy lifestyle. The American Red Cross instructional outline will be followed. Upon successful completion the students will be certified in both Standard First Aid and CPR. (CSU) (UC) (Degree Credit)

## PE 236 F Prevention and Care of Athletic Injuries (3)

Two hours lecture and three hours lab arranged per week. The lab consists of training room observations and practical work. This course is designed to give the student a basic exposure to the care and prevention of sports related injuries and illnesses. Discussion includes mechanism of injury, signs and symptoms and the appropriate treatment for the most common injuries. Some class time is spent in the Fullerton College training room learning how to tape ankles and better understand the necessary equipment. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 238 F Water Safety Instruction (3)

## Prerequisite: Ability to swim

Two hours lecture and two hours lab per week. This is a course with intensive work in how to teach others in the area of swimming and lifesaving. The student is given the opportunity to obtain a Red Cross WSI certificate that is required by the State of California when working at either a private or public pool where swimming lessons are offered. This is a class in which theory and practical application, along with practice teaching, are stressed. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 239 F Open Water Scuba Diving (3)

Advisory: Ability to swim 50 yards and tread water for 3 minutes Two hours lecture and four hours lab per week. This is a course designed to prepare the student to perform skills of skin and SCUBA diving. Instruction will identify, discuss, and employ safety techniques in all phases of underwater diving. Confined water training will be practiced in the pool and repeated during open-water (ocean) dive trips. Field trips and boat dives are required for certification, but certification is not required for completion of this course. Course can be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 240 F Sports Officiating for Men (2)

Two hours lecture plus two hours arranged per week in officiating. The basic rules and mechanics of officiating the sports of football, basketball, baseball, and softball are covered. Students will receive practical experiences in officiating. Course may be taken twice for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 241 F Sports Officiating for Women (2)

Two hours lecture plus two hours arranged per week in officiating. This course includes a study of the rules of basketball and volleyball, first semester; and softball in the second semester. This class provides an opportunity to obtain officiating ratings in basketball volleyball and softball. (Not currently being offered - if interested, contact Division Office.) Course may be taken twice for credit. (CSU) (UC Credit Limitation) (Degree Credit)

PE 243 F Stress Management Through Physical Activity (2) One hour lecture and two hours lab per week. Instruction and practice will be given in identifying major sources and types of stress. Each student will develop an individual program suited to his/her needs. Lab instruction will include practice in stretching, progressive relaxation, action, autogeneses, biofeedback, differential relaxation as well as mental imagery and rehearsal techniques. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 245 F Lifesaving, Basic Rescue/CPR (2)

## Prerequisite: Ability to swim

Two hours lecture and one hour lab per week. This course is designed to develop and perfect the basic swimming strokes needed to successfully execute the various lifesaving skills, as well as improve general skills and proficiency in the water. Upon completion of the class, a student who successfully passes written and practical exams will be qualified to be certified for an American Red Cross Emergency Water Safety, Basic Lifeguarding, or Lifeguard Training Certificate. Cardiopulmonary resuscitation is also covered in class and a certificate of completion is issued when successfully completed. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 246 F Advanced/Master SCUBA Diver (3)

Advisory: Demonstrate the basic skills of scuba according to the national standards of NAUI. (Regulator clear, mask clear, Iow and out of air emergency). Students need to be able to swim in order to complete the water component of the course.
Two hours lecture and four hours lab per week. The Advanced/Master SCUBA diving course is an intensive program consisting of lectures and practical application of water skills. The information presented will increase the student's knowledge in the area of equipment, ocean environment, safety, decompression, leadership and specialty diving options. This course provides the opportunity to receive certification not only for Advanced and/or Master, but also for specialties such as Rescue, Deep Water, Night, and Decompression diving, etc. NAUI standards and certification will be utilized. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 247 F Sports Management (3)

Three hours lecture and two hours arranged per week. This course introduces organization, management, planning, staffing, directing, and controlling a sports program. The course also includes such areas as budget, facilities, scheduling, officials, transportation, public relations, parent and booster clubs, purchase and care of athletic equipment, fundraising, and marketing. (CSU) (Degree Credit)

## PE 248 F Psychology of Sport (3)

Three hours lecture per week. This course will assist students to understand the effects of psychological factors on motor performance. In addition, students will gain an understanding of the effects of participating in physical activity on psychological development, health, and well being. (CSU) (Degree Credit) CSU GE

## PE 249 F International Diving Tour (3)

Letter Grade or Pass/No Pass Option

## Advisory: Ability to swim

Two hours lecture and four hours lab per week. Introductory lectures and pool/beach labs will instruct the student in fundamental SCUBA diving skills prior to the start of the tour. The tour will consist of traveling to an international destination where the students will study the various elements of its environment while applying basic diving skills. NAUI coursework, testing and training standards will be utilized. Students that meet requirements can receive certification on various levels when tour is completed and dive logs are authenticated. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 250 F Sport and the United States Society (3)

Three hours lecture per week. This course examines sport in the United States society, and how various ethnic and minority groups have influenced sport participation at the local, state, and national levels. Influences of other cultures outside of the United States will be reviewed and analyzed. A review of sport history from both the national and international perspective will be conducted with communication and media influences also examined. Fulfills Multicultural Education Requirement for graduation. (CSU) (Degree Credit) MULT CULT REQ

## PE 251 F Philosophy of Martial Arts (3)

Three hours lecture per week. This course is an overview of the philosophy of the martial arts, intended to develop an understanding of the integrated human being as a physical and psychological organism. Relevant philosophies include Zen and Taoism, and the relationship to humanistic psychology. The course focuses on self-mastery through the martial arts in areas including focus, self-discipline, expanded awareness and achieving one's personal best. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 252 F Introduction to Physical Education (2)

Two hours lecture per week. Introduction and orientation to physical education as a profession and as an academic discipline. Explores subdisciplines, opportunities in the field, philosophy, scientific foundation, and analyzes and evaluates individuals that have influenced these trends and issues in the 21st century. Course may be taken four times for credit. (CSU) (Degree Credit)

PE 266 F Physical Fitness as a Lifelong Concept (2)
Two hours lecture per week. This course will survey and analyze the exercise components that make up our individual physical beings. Students will appraise the concepts of behavior that may result in an optimally fit and healthy life-style. Additionally, students will observe the effects that age has on specific body systems and how a reasonably conceived and defined program of activity and diet may result in improved fitness, wellness and quality of life with advancing years. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## PE 270 F Diet and Exercise for Athletes (3)

Two hours lecture and three hours lab per week. This course is designed to help understand the concept of lifelong weight management. The goal is to learn to combine the good nutritional habits along with a quality exercise regime to meet weight control goals. The class will include comprehensive lectures with an affecting weight-related problem with athletes. The course will emphasize caloric planning, energy expenditure, metabolism, and eating disorders. Diet theories will be explained along with the evaluation of fad diets and supplements. (CSU) (Degree Credit)

## PE 280 F Professional Activities - Theory of Baseball (2)

One-hour lecture and two hours lab per week. A course designed to prepare future physical education teachers or community youth coaches in the theory of coaching baseball. This course will include the mental and physical preparation of becoming a complete baseball player; the theory and practical experience of offensive and defensive phases of the game; individual technique drills for each of the nine positions; coach and umpire relationships; the planning and execution of practice sessions; and the strategies involved during a game. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 281 F Professional Activities - Theory of Basketball (2)

One-hour lecture and two hours lab per week. The course deals with basketball from beginning to present day. The psychology of coaching basketball, player fundamentals, administration of a total basketball program, behavioral objectives for basketball, practical experience of teaching offense and defense will be covered. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 282 F Professional Activities - Theory of Softball (2)

One-hour lecture and two hours lab per week. This course is designed to prepare present and future players, physical-education teachers and coaches in the theory of coaching softball. The course includes the mental and physical preparation of becoming a softball player; the theory and practical experience pertaining to the offense and defense; individual technique drills for each of the nine softball positions. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 283 F Professional Activities - Theory of Football (2)

Two hours lecture per week. This is a course, which will better prepare those students going into physical education, coaching or recreation with basic fundamentals, strategy and history of football. Students will gain an awareness of techniques and concepts relating to better performance and learning experiences. (CSU) (UC Credit Limitation) (Degree Credit)

PE 284 F Professional Activities - Theory of Soccer (2)
One hour lecture and two hours lab per week. This course is designed to prepare future physical education and recreation teachers or community coaches in the theory of coaching soccer. It includes the mental and physical preparation of becoming an instructor of, or participant in, the sport of soccer and the theory and practical experience of offensive and defensive phases of the game. Technique, tactics, fitness, and psychology will be covered in detail. Rules and regulations of the game, along with equipment and safety, will be discussed. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 285 F Professional Activities - Theory of Volleyball (2)

One hour lecture and two hours lab per week. This course is designed to prepare present and future players, physical education teachers and coaches in the theory of coaching volleyball. The course includes the mental and physical preparation of becoming a volleyball player, the theory and practical experience pertaining to the offense and defense strategies of volleyball, individual technique drills to perfect the skills of volleyball. (CSU) (UC Credit Limitation) (Degree Credit)

## PE 299 F Physical Education Independent Study (1-2)

Three to seven hours lab per week in interest area plus scheduled conferences. For students who wish to participate in acceptable noncurricular physical activities or who wish to work in the field as a teaching assistant or official or to study special programs in physical education. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

## Physical Sciences (PHSC)

## Natural Sciences Division

Office: Bldg 1000
714.992.7043

Dean: Bruce Cordell
Website: http://natsci.fullcoll.edu/

## Physical Sciences Courses

## PHSC 050 F Success in Science (1)

Pass/No Pass only
One hour lecture per week. This course is designed to prepare students for any introductory course within the Natural Science Division. Topics include using and converting units, converting written statements into algebraic or graphical statements, interpreting scientific data, calculating areas and volumes, estimating answers, using scientific notation and significant figures, critical thinking and problem solving. Under no circumstances will this course take the place of the math prerequisite (MATH 020 F, MATH 040 F, MATH 142 F, or MATH 150AF) listed for any science course.

PHSC 051 F Success in Physical Science (1)
Pass/No Pass only
One hour lecture per week. This course is designed to prepare students to take physics or chemistry courses. It is a continuation of PHSC 050 F Success in Science, using units and dimensional analysis with more complex problems. Other topics include more complex science problem solving, checking solutions in error, 3-dimensional visualization, growth and decay processes, proportional reasoning, using angles and vectors in mechanics, and extracting information from graphs of experimental data. Under no circumstances will this course take the place of the math prerequisite (MATH 020 F, MATH 040 F, MATH 142 F, or MATH 150AF) listed for any science course.

## PHSC 102 F Physical Science Survey (4)

Three hours lecture and three hours lab per week. This course integrates instructor-guided concept exploration, problem solving, small group investigation, and class presentation. This activity-based course will examine physical science concepts in real-world contexts such as global warming, household science and the automobile. (CSU) (UC; no credit if taken after a college course in astronomy, chemistry, geology, or physics.) (Degree Credit) AA GE, CSU GE, IGETC

## PHSC 103AF Physical Sciences for Teachers -

Physics (2)
Prerequisite: MATH 020 F with a grade of " $C$ " or better
One and one-half hours of lecture and one and one-half hours of lab per week. This course covers conservation laws, Newton's laws of motion, gravity, electromagnetism, and optics. It is designed for students who want to become multiple-subject school teachers, but is open to all students. General education transfer credit acceptable only if PHSC 103BF is also completed. (CSU)

## PHSC 103BF Physical Sciences for Teachers Chemistry (2)

Prerequisite: MATH 020 F with a grade of " $C$ " or better and PHSC 103AF with a grade of "C" or better
Advisory: This course should be taken the same semester as PHSC 103AF
One and one-half hours of lecture and one and one-half hours of lab per week. This activity-based course provides an introduction to the basic concepts of chemistry including atoms, bonding and chemical reactions. Instructor-guided concept exploration, problem solving, small group investigation, and class presentation are integrated within the context of real-world applications of chemical concepts. It is designed for students who want to become multiple-subject school teachers but is open to all students. General education transfer credit acceptable only if PHSC 103AF is also completed. (CSU) (Degree Credit)

PHSC 299 F Physical Sciences Independent Study (1)
Prerequisite: Demonstrated scholarship in courses in the Physical Sciences Division
One hour lecture or scheduled conference or three hours lab research per week. For able students who wish to increase their knowledge of the sciences through individual study and small group conferences. Independent lab research problems with staff supervision may be approved. Outside reading and written report required. Elective credit in the sciences area. (CSU) (UC review required) (Degree Credit)

## Physics (PHYS)

Natural Sciences Division<br>Office: Bldg 1000<br>714.992.7043<br>Dean: Bruce Cordell<br>Website: http://natsci.fullcoll.edu/

## Associate in Arts Degree

## Physics Courses

## PHYS 130 F Elementary Physics (4)

Letter grade or Pass/No Pass option

## Prerequisite: MATH 020 F

Three hours lecture, three hours lab per week. A survey of some of the more important principles, philosophy, and phenomena of physics. Topics include mechanics, electricity and magnetism, wave phenomena, and modern physics. The course is intended for those with no previous experience in physics. It is not open to anyone who has taken a collegelevel physics course. The lab includes experiments in measurement, mechanics, electricity, wave phenomena, and radioactivity. (CSU) (UC Credit Limitation; no credit if taken after PHYS 205 F, PHYS 210 F or PHYS 221 F.) (Degree Credit) AA GE, CSU GE, IGETC

## PHYS 205 F Physics for the Life Sciences I (formerly College Physics) (4)

Letter grade or Pass/No Pass option
Prerequisite: MATH 141 F and MATH 142 F, both with a grade of " $C$ " or better
Three hours of lecture and three hours of lab per week. This course covers Newtonian mechanics, conservation laws, heat, and waves. The lab portion of the course investigates these topics both qualitatively and quantitatively, and includes the use of graphing and statistics, and propagation of errors. This is the first half of an algebra-based two-semester sequence (PHYS 205 F and 206 F ) for students majoring in the life sciences. This course satisfies a requirement for biology majors in the CSU system, but not the UC system. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## PHYS 206 F Physics for the Life Sciences II (formerly College Physics) (4)

Letter grade or Pass/No Pass option
Prerequisite: PHYS 205 F with a grade of "C" or better
Three hours of lecture and three hours of lab per week. This course covers electricity and magnetism, optics, special relativity, and quantum physics. The lab portion of the course investigates these topics both qualitatively and quantitatively, and includes the use of graphing and statistics, and propagation of errors. This is the second half of an algebrabased two-semester sequence (PHYS 205 F and 206 F ) for students majoring in the life sciences. This course satisfies a requirement for biology majors in the CSU system, but not the UC system. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

## PHYS 210 F Physics with Calculus for the Life Sciences I (formerly Physics) (4) <br> Corequisite: MATH 150AF

Three hours of lecture and three hours of lab per week. This course covers Newtonian mechanics, conservation laws, heat, and waves. The lab portion of the course investigates these topics both qualitatively and quantitatively, and includes the use of graphing and statistics, and propagation of errors. This is the first half of a calculus-based two-semester sequence (PHYS 210 F and 211 F ) for students majoring in the life sciences. This course satisfies a requirement for biology majors in the UC system; the CSU system will accept either this sequence or PHYS 205 F and PHYS 206 F. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## PHYS 211 F Physics with Calculus for the Life Sciences II (formerly Physics) (4)

Prerequisite: PHYS 210 F with a grade of "C" or better Corequisite: MATH 150BF
Three hours of lecture and three hours of lab per week. This course covers electricity and magnetism, optics, special relativity, and quantum physics. The lab portion of the course investigates these topics both qualitatively and quantitatively, and includes the use of graphing and statistics, and propagation of errors. This is the second half of a calculusbased two-semester sequence (PHYS 210 F and 211 F ) for students majoring in the life sciences. This course satisfies a requirement for biology majors in the UC system; the CSU system will accept either this sequence or PHYS 205 F and PHYS 206 F. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

## PHYS 221 F General Physics I (4)

Prerequisite: MATH 150AF with a grade of " $C$ " or better
Three hours lecture and three hours lab per week. Mechanics, vibrations, properties of matter. The lab provides students with hands-on experience working with the subject material. Required for majors in physics and engineering. Recommended for majors in all the other physical sciences. PHYS $221 \mathrm{~F}, 222 \mathrm{~F}$, and 223 F are a calculus-based, three-semester survey of introductory physics. High school physics or PHYS 130 F is strongly recommended, and students must complete one semester of calculus before beginning the sequence. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## PHYS 222 F General Physics II (4)

Prerequisite: PHYS 221 F and MATH 150BF, both with a grade of " $C$ " or better
Three hours lecture and three hours lab per week. Electrostatics, electric and magnetic fields, simple DC and AC circuits, Maxwell's equations in integral form. The lab provides students with hands-on experience working with the subject material. Required for majors in physics and engineering. Recommended for majors in all the other physical sciences. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

## PHYS 223 F General Physics III (4)

Prerequisite: PHYS 222 F with a grade of "C" or better
Three hours lecture and three hours lab per week. Thermodynamics, mechanical and electromagnetic waves, geometrical and physical optics, special relativity, and an introduction to quantum mechanics including wave-particle duality, the uncertainty principle, the atom, and the nucleus. The lab provides students with hands-on experience working with the subject material. PHYS $221 \mathrm{~F}, 222 \mathrm{~F}$, and 223 F are a calculus-based three-semester survey of introductory physics. Required of majors in physics and most majors in engineering. Recommended for majors in all the other physical sciences. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

# Political Science (POSC) 

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

## Associate in Arts Degree

## Political Science Courses

## POSC 100 F American Government (3)

Three hours lecture and discussion per week. This course is an introductory survey of American governing institutions, federal and state, and other elements of the political system. The course is issue-oriented, inviting students to analyze critically competing theories and arguments relating to the founding of the Republic (especially the development of the Constitution), federalism, individual rights and liberties, interest groups, political parties, voting behavior and elections, campaign finance reform, public policy options, and the operational relations among the executive, legislative, and judicial branches. Course curriculum recognizes the roles and contributions of racial and ethnic groups and women in American politics. On each of these topics comparisons will be made to the governing units and politics of California, as well as local government. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## POSC 100HF Honors American Government (3)

Three hours lecture and discussion per week. Enhanced for honors students. This course is an introductory survey of American governing institutions, federal and state, and other elements of the political system. The course is issue-oriented, inviting students to analyze critically competing theories and arguments relating to the founding of the Republic (especially the development of the Constitution), federalism, individual rights and liberties, interest groups, political parties, voting behavior and elections, campaign finance reform, public policy options, and the operational relations among the executive, legislative, and judicial branches. Course curriculum recognizes the roles and contributions of racial and ethnic groups and women in American politics. On each of these topics comparisons will be made to the governing units and politics of California, as well as local government. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## POSC 110 F Contemporary American Politics (3)

Three hours lecture and discussion per week. This course emphasizes the political problems that are current in the American political scene and provides an opportunity for the student to investigate and evaluate contending response to those problems. Alternately, this course is designed to provide structured opportunities for students to participate actively in the processes of government and politics as interns. (CSU) (UC) (Degree Credit) CSU GE, IGETC

POSC 120 F Introduction to Political Theory (3)
Three hours lecture and discussion per week. The course is a survey of Western political theory. It is intended to introduce students to political theory from Greek times to the Enlightenment and beyond. It is intended to show students how political theory shapes current institutions and ideologies in the United States, Europe, and other countries around the world. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

POSC 150 F California Government \& Politics (3)
Three hours lecture and discussion per week This course is an introduction to the study of state and local politics, exploring the political culture, processes, behavior, institutions, public policy, and distribution of power in California. Policies in other states are examined to aid understanding of California politics. Topics include the political culture of the state, the process of change, policy agendas, budgeting, and the current status of states within the federal system. (CSU) (Degree Credit) AA GE, CSU GE

POSC 180 F Capital Field Trip: Sacramento Seminar (3)
A total of 36 hours per trip required. This seminar class joins with student delegations from other California colleges and universities that meet in the state capitol for a four-day policy conference each spring. Includes presentations and panel discussions by legislators, lobbyists, public administrators, and journalists. The class will meet regularly before the practicum to prepare students for the conference and an independent research paper will be assigned. Student contribution of $\$ 175$ will cover the cost of transportation, hotel and registration fee for the seminar. (CSU) (Degree Credit)

## POSC 200 F Introduction to the Study of Politics (3)

Three hours lecture and discussion per week. This course is an introduction to the study of politics in general, not simply American politics. Explore the many faces of politics all over the world, examining its relationships to morality, culture, economics, justice and international affairs both theoretically and practically. As an introductory course, it includes elements from the major sub-disciplines of political science, i.e., American politics, comparative politics, and international relations. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## POSC 215 F Comparative Political Systems (3)

Three hours lecture and discussion per week. This course emphasizes various methodologies necessary to compare political systems representing Eurasia, the Western Hemisphere, and the developing nations. It explores the differences and similarities in the operation of the major branches of government, political party and electoral systems, types and activities of interest groups, individual rights and liberties, leadership patterns, the power relations among local, provincial, national and supranational regional governments such as the European Community, and the challenges facing transitional democracies throughout the world. (CSU) (UC) (Degree Credit) CSU GE, IGETC

POSC 216 F Government and Politics of the Middle East (3) Three hours lecture and discussion per week. This course is an introduction to the historical, social, economic and ideological foundations of the Middle East in general and major states in the region in particular. Emphasis is placed on the political and economic developments in Egypt, Iraq, Iran, Israel and Saudi Arabia. Topics covered include: introduction to the land, peoples, cultures and religions; colonialism and the emergence of modern states following World War I; Western influence and Islamic revivalism; regional conflicts (Arab-Israeli, Iran-Iraq, Gulf War); the politics and economics of oil; U.S. based ethnic interest groups and their influence on U.S. foreign policy; patrimonialism and militarism; liberalization and democratization. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

POSC 220 F Introduction to Public Administration (3)
Three hours lecture per week. Topics analyzed include the role of government in American society, the historic development of the public service, management issues related to modern governmental enterprises, problems of personnel, public budgeting and alternative strategies for securing administrative responsibility. the course focuses on readings and cases pertaining to local and state administration, although issues involving the federal level are discussed where appropriate. This course examines, from a multidisciplinary perspective, those essential competencies, values and issues important to public service organizations and the importance of public policy at the local, state, national and international levels. (CSU) (UC) (Degree Credit) CSU GE, AA GE

POSC 230 F Introduction to International Relations (3)
Three hours lecture and discussion per week. This course is a study of the basic dynamics and structure of the nation-state system as it emerged in the post-World War II context, and in the aftermath of the collapse of the Soviet Bloc. Students will examine major issues of the U.S. foreign policy, and engage in an individual research project. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## POSC 275 F Introduction to Public Law (3)

Three hours lecture and discussion per week. The course explores the interactive dynamic among the judicial, legislative, and executive branches in the creation and implementation of public law. It involves an extensive analysis of cases relating to the separation of powers, federalstate relations, and rights of property, free expression, privacy, criminal due process, political participation, and equality under the law. Corollary topics include orientation to legal research, case briefing, development of judicial review, judicial organization and decision-making, sources and limits of judicial power, and the political impact of Supreme Court decisions. Students will participate in various simulations of court decisions. (CSU) (UC) (Degree Credit) CSU GE

## POSC 299 F Political Science Independent Study (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken three times for credit. (CSU) (UC review required) (Degree Credit)

## Portuguese (PORT)

## Humanities Division

Office: Bldg 500, Room 522-O
714.992 .7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## Portuguese Courses

## PORT 101 F Elementary Portuguese I (5)

Letter grade or Credit/no credit option.
Five hours lecture plus one hour arranged lab per week. The course focuses on the four major skills of language learning, listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Portuguese-speaking countries. This course is conducted primarily in Brazilian Portuguese. (CSU) (UC) (Degree Credit) AA GE, CSU GE

PORT 102 F Elementary Portuguese II (5)
Letter grade or Credit/no credit option.
Prerequisite: PORT 101 F with a grade of " $C$ " or better or one year of high school Portuguese with a grade of "C" or better
Five hours lecture plus one hour arranged lab per week. The course continues to focus on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Portuguese-speaking countries. This course is conducted primarily in Brazilian Portuguese. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## Printing Technology (PRNT)

Technology and Engineering Division<br>Office: Bldg 900, Room 901<br>714.992.7588<br>Dean: Scott McKenzie<br>Website: techneng.fullcoll.edu

Associate in Science Degree<br>Advanced Offset Presswork Certificate<br>Customer Service Training Certificate<br>Digital Printing Certificate<br>Electronic Imaging Certificate<br>Flexography Certificate<br>Graphic Communications Certificate<br>Offset Duplicator Training Certificate<br>Printing Technology (General) Certificate<br>Quick Print/In-Plant Graphics Certificate<br>Screen Printing Certificate

## Printing Technology Courses

## PRNT 021 F Survey of Graphic Communications (.5-2)

Open Entry/Open Exit
This course is an open entry/variable unit lab and is designed to introduce the student to the basic terminology, equipment and processes used in the printing industry. Completion of 24 hours of lab equals .5 units. The course may be taken four times for credit to a maximum of 8 units.

## PRNT 056 F Digital Printing (2.5)

Two hours lecture and one and one half hours lab per week. This introductory course will provide students with a basic theory of digital printing. Emphasis will be placed on the operation of a Xerox Docutech digital printing machine. Other related topics to be covered include digital history, image assembly and composition, digital quality, machine features, bindery operations, paper specifications, and digital machine maintenance. (Degree Credit)

## PRNT 070 F Quick Printing and In-Plant Graphics (2-8)

Sixty-four hours lecture and lab required for each two units of credit. Theory and practical experience in quick print and in-plant printing. Areas covered are: estimating, small press, camera, bindery, and related subjects necessary for day to day production. This class is offered on an open-entry, variable unit open-exit basis. Course may be taken four times for credit. (Degree Credit)

## PRNT 072AF Photo-Silk Screen (2)

One hour lecture and three hours lab per week. Principles, basic methods, and techniques of preparing designs, and placing direct stencils on a screen printing frame, also establishing register systems and printing on various substrates as per industrial procedures. Care, use, and safety precautions in operating and cleaning of the screen printing frame, equipment, and supplies. (Degree Credit)

## PRNT 072BF Advanced Photo-Silk Screen (2)

## Prerequisite: PRNT 072AF

One hour lecture and three hours lab per week. Vocational copy preparation techniques for multi-color reproduction, register and color matching. Instruction to include ink composition, modifiers, proper ink, and estimating cost analysis for production. Emphasis on new synthetic inks and curing procedures. (Degree Credit)

## PRNT 072CF Advanced Photo-Silk Screen (2)

## Prerequisite: PRNT 072BF

One hour lecture and three hours lab per week. Industrial camera techniques with emphasis on special-effect screen, tint screens, and halftones. (Degree Credit)

PRNT 075 F Electronic and Conventional Pre-Press (6-6-6) Four hours lecture and eight hours lab per week. This course has extensive instruction in electronic prepress page layout, color scanning and conventional prepress operations. Typesetting, proof reading and image manipulation via files, to merge copy and graphics, is an integral part of this course. Design and creativity is not the intent of this course. Instructions will be given in film assembly of negatives and positive for the purpose of preparing printing plates for sheetfed offset presswork by both conventional and electronic processes. This course will present the theory of color and how it applies to the lithographic process. Special emphasis is placed on direct and indirect key line techniques and advance contacting procedures. A variety of daylight films will be accurately calibrated with the use of an electronic densitometer. (Graphic Arts Technical Foundation - GATF Certification in Film Assembly and Fullerton College certification in Conventional and Electronic Prepress). Course may be taken three times for credit. (Degree Credit)

## PRNT 085 F Introduction to Flexography (4)

This introductory course will provide the student with a technical understanding of flexographic press operation for one, two and three color printing. Students will practice the set-up, operation, and clean-up of a narrow web flexographic press. Topics for discussion will include history of flexography, flexographic plates, plate mounting, ink systems and nomenclature, types of cylinders, substrates, die cutting, stripping, slitting, environmental concerns, and related safety. (Degree Credit)

## PRNT 086 F Advanced Flexography (4)

Advisory: PRNT 085 F
This advanced course will provide the student with advanced technical aspects of flexographic press operation for multiple color printing. Students will practice pre-press techniques and develop advanced flexographic press skills on a narrow web label press. Advanced applications of flexographic processes, design, multi-color prints, plate materials, bar codes, inks, substrates, presses and press equipment, pressroom practices, environmental concerns, and related safety will be discussed. (Degree Credit)

## PRNT 090 F Printing Skills Lab (.5-6)

Corequisite: Any printing technology class, except screen printing classes
One-half to six hours lab per week. This advanced course will provide students with an opportunity to practice various printing skills they have developed from completing other printing courses. Students can improve skills in the operation of the Xerox Docutech digital printing machine, electronic pre-press, large offset press operation, small offset press operation, bindery operations, paper specifications, and machine maintenance. Course may be taken four times for credit. (Degree Credit)

## PRNT 101 F Introduction to Printing (3)

Two hours lecture and four hours lab per week. A basic course, which covers the technical aspects of the various printing processes and related areas. This course includes instruction in copy generation and page design using various computer applications including QuarkXPress and Photoshop. Computerized pre-press instruction includes preflighting of files and output on film using an image setter. This course also includes basic instruction in small offset press and prepares the student to enter other more advanced printing classes. (CSU) (Degree Credit)

## PRNT 130 F Graphics (2)

One and one-half hour lecture and one and one-half hour lab per week. Introduces to the industrial arts teaching major and the non-printing major the broad field of graphic arts. Included are experiences in hand composition, copy fitting, paste-up, offset camera stripping, and bindery operation. The course is arranged for students majoring in industrial arts, technical illustration, journalism, commercial art, and merchandising whom in their vocation will work with or furnish materials to the printer. (CSU) (Degree Credit)

## PRNT 151 F Introduction to Pre-Press (4)

Advisory: PRNT 101 F or one year of industrial experience or two years of high school graphic arts
A basic course, which covers the technical aspects of conventional pre-press. The use of a horizontal process camera, including units of litho chemistry, quality control of line and halftone negatives, contacting techniques, film assembly for large offset presses using pin registration, photo mechanical proofing and making of offset plates are taught. (Graphic Arts Technical Foundation - GATF - Certification) (CSU) (Degree Credit)

## PRNT 152 F Introduction to Electronic Pre-Press (4)

Advisory: PRNT 151 F or one year industrial experience and basic computer knowledge
This is an introductory course, which covers the technical aspects of electronic pre-press. The use of both Mac's and PC based computers, using current software in page layout, scanning, design, typography, file management for printers will be taught. This class is part of the new industrial image skills training program. (Graphic Arts Technical Foundation - GATF - Certification) (CSU) (Degree Credit)

## PRNT 161 F Sheetfed Offset Presswork (4)

Advisory: PRNT 101 F or PRNT 070 F or one year industrial experience or two semesters of articulated high school graphics
This course is designed to introduce the technical aspects of lithographic sheetfed offset presswork for students who are currently working in the printing industry. Lithographic theory and its application to knowledge and performance of pressroom safety, the feeder system, the printing units, press feeders, single color register, paper properties, delivery systems, and an exposure to make-ready and production techniques. (Graphic Arts Technical Foundation - GATF - Certification) (CSU) (Degree Credit)

## PRNT 162 F Intermediate Sheetfed Offset Presswork (4) Prerequisite: PRNT 161 F

Three hours lecture and three hours lab per week. An intermediate course designed for students working in the printing industry. This course covers the technical aspects of lithographic theory, the application of knowledge and performance of pressroom safety, the printing units, inking and dampening systems, multicolor register, make-ready, and intermediate exposure to production techniques, and "Tricks of the Trade" are covered. GATF/PIA-SC, Fullerton College examination. This is the completion of the Sheetfed Offset Press Certification initiated in the PRNT 161 F prerequisite. (Graphic Arts Technical Foundation GATF - Certification) (CSU) (Degree Credit)

## PRNT 171 F Offset Presswork (7)

Advisory: PRNT 101 F or PRNT 070 F or one year industrial experience or two semesters of articulated high school graphics
A basic course, which introduces the technical aspects of lithographic, sheetfed offset presswork, for those seeking initial employment in the printing industry. The basic lithographic theory and its application to knowledge and performance of pressroom safety, the feeder, the printing units, inking and dampening systems, press feeders, register, preproduction and an exposure to production techniques. (Graphic Arts Technical Foundation - GATF - Certification) (CSU) (Degree Credit)

## PRNT 172 F Offset Presswork (6)

## Prerequisite: PRNT 171 F

Four hours lecture and eight hours lab per week. An intermediate course, which covers the technical aspects of lithographic, sheeted offset presswork and intermediate lithographic theory. This course is designed for those entering the printing field and are interested in training for large press operation. Course content includes the application to knowledge and performance of pressroom safety, the cylinder system, inking and dampening systems, press make-ready procedures, multicolor printing, press maintenance techniques, and an exposure to intermediate production techniques. Emphasis is on completion of the Knowledge Certificate by passing the GATF/PIA-SC, Fullerton College examination. This is the completion of the Sheeted Offset Press Certification initiated in the 171 prerequisite. (Graphic Arts Technical Foundation - GATF - Certification) (CSU) (Degree Credit)

## PRNT 190 F Basic Printing Estimating (2)

Corequisite: PRNT 101 F or one year experience in the printing industry
Two hours lecture per week. This course is designed for students to develop expertise in the field of printing cost estimating and receive an introduction to basic printing management techniques. Practical examples from current printing jobs in industry are utilized to assist the student in developing meaningful and accurate cost estimates to include environmental considerations. The class will include all facets of the industry including typesetting, computer generated imaging, camera, film assembly, proofing, plate making, sheet and web fed lithographic presswork, bindery and finishing operations. The class will stress current paper and ink estimating techniques using accepted trade standards. (CSU) (Degree Credit)

## PRNT 953 F Advanced Electronic Pre-Press (4)

## Prerequisite: PRNT 152 F

Three hours lecture and three hours lab per week. This is an advanced course which covers the technical aspects of color specifications, illustration software, typography and font management, color reproduction, introduction to color management, digital file transport, pre-flight of files, proofing, quality control, digital workflow, file servers and networks. Imagesetter, digital trapping, digital imposition and the use of postscripts are taught. (Graphic Arts Technical Foundation - GATF - Certification) (CSU) (Degree Credit)

## PRNT 963 F Advanced Sheetfed Offset Presswork (4) Prerequisite: PRNT 162 F

Three hours lecture and three hours lab per week. An advanced course which covers the intricate reproduction of process lithographic color that is designed for students with industrial experience. The advanced applications of press operation, pressroom safety, successive and stream feed systems, premake-ready, make-ready, inking and dampening components, four color register, and production techniques. Emphasis is on completion of the Performance Certificate by passing the GATF/PIA-SC, Fullerton college four color process practical examination. (Graphic Arts Technical Foundation - GATF - Certification) (CSU) (Degree Credit)

## PRNT 973 F Advanced Offset Presswork (6)

Prerequisite: PRNT 172 F
Four hours lecture and eight hours lab per week. An advanced course designed for students entering the printing field seeking employment. This printing production course covers the intricate reproduction of process lithographic color. The advanced application of press performance, pressroom safety, press feeder systems, the printing units, the inking and dampening systems, four color register, make-ready and advanced production techniques. Emphasis is on completion of the Performance Certificate by passing the GATF/PIA-SC, Fullerton College four color process practical examination and gaining employment. (Graphic Arts Technical Foundation - GATF - Certification) (Degree Credit)

## Psychology (PSY)

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

## Associate in Arts Degree

## Psychology Courses

## PSY 101 F General Psychology (3)

Three hours lecture per week. This course is a scientific introduction to the major fields of psychology. These fields include research methodology, cognition, memory, perception, sensation, motivation, emotion, learning, and developmental, social, personality, abnormal, and physiological psychology. Students will learn the principles, theories, and research on human actions, emotions, and cognition. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## PSY 101HF Honors General Psychology (3)

Three hours lecture per week. This course, enriched for honors students, is a scientific introduction to the major fields of psychology including research methodology, cognition, memory, perception, sensation, motivation, emotion, learning, developmental, social, personality, abnormal, and physiological psychology. Students will learn the principles, theories, and research on human actions, emotions, and cognition. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

PSY 110 F Introduction to Applied Psychology (3)
Three hours of lecture-discussion per week. In this course, students apply the principles of psychology and the research in psychology to common "everyday" situations. Psychological principles will be applied to situations that might occur during college life, during personal and social experiences, and at work and in one's career. Students will learn how psychology apples to adjustment, health, stress, and psychological disorders. Applied Psychology is not the same as PSY 101 F; it has less of a focus on technical terms and theories than does General Psychology, and cannot be taken in place of PSY 101 F. (CSU) (Degree Credit) AA GE

## PSY 120 F Human Sexuality (3)

Three hours lecture per week. Human Sexuality is a broad field in which many cultural, psychological and physiological variables interact in relation to sexual development, attitudes and behaviors. The methods of scientific psychology are utilized to improve understanding of a broad range of behaviors ranging from healthy to dysfunctional within mainstream modern American culture and American minority groups as well as peoples of other cultures and historical eras. Discussion of differing cultural and moral perspectives is utilized to assist students in making a critical assessment of the nature of the sexual self as well as intimate human relationships within their own community and the world. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## PSY 131 F Cross-Cultural Psychology (3)

Three hours lecture per week. This course is an introduction to culture's influence on human behavior and mental processes. Beginning with an examination of theoretical definitions of culture, the course covers a broad range of theories and research findings regarding cultural influences on human behavior and cognitive processes (life-span development, abnormal behavior and mental health, self-concept, emotion, motivation, learning, intelligence, perception, memory, communication, social cognition, and social behavior). The diversity of human expression is examined in contexts ranging from everyday modes of functioning to family and work relationships. By providing students with a nonjudgmental understanding of how culture influences human behavior, this course will make them more equipped to interact in a world where there is increasing contact among different cultures. In addition, students will gain knowledge in cross-cultural research methodology. Eligibility for ENGL 100 F is recommended. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## PSY 139 F Developmental Psychology: Life Cycle (3) Prerequisite: PSY 101 F

Three hours lecture per week. The course explores the entire lifespan, including infancy, childhood, adolescence, adulthood, old age and death. Students will study and evaluate psychological, sociological and biological theories and facts related to human development. Physical development, social and emotional development, intellectual and cognitive development, and moral development are among the topics covered. Students will study and evaluate research methodologies, and will study many factors thought to influence healthy development. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## PSY 145 F Child Psychology (3)

Corequisite: PSY 101 F or PSY 110 F
Three hours lecture per week. The psychology of development will be studied from the prenatal stage through adolescence across the domains of physical, cognitive and psychological changes. Theoretical viewpoints and research findings will be applied to real-life situations in the context of a cross-cultural perspective, the dominant U.S., Asian and Latino cultures, in addition to Russian, Indian, African, German, Chinese, Australian, and French cultures. This course fulfills the Multicultural Education Requirement of graduation. (CSU) (UC) (Degree Credit) CSU GE, IGETC, MULT CULT REQ

## PSY 161 F Elementary Statistics in Behavioral

 Sciences (3)Prerequisite: Two years of high school algebra or MATH 040 F
Three hours lecture per week. This course introduces psychology and behavioral science majors to descriptive and inferential statistical methods. These methods are essential to the understanding, interpretation, and performance of scientific research. Topics covered include presentation of graphic data, probability theory, hypothesis testing, correlation analysis, analysis of variance, and basic research design. Experience with calculators and computers are provided. (CSU) (UC Credit Limitation; PSY 161 F and MATH 120 F combined, maximum credit one course) (Degree Credit) CSU GE, IGETC

## PSY 199 F Psychology Independent Study I (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken three times for credit. (CSU) (UC Credit Limitation depending upon course content; UC review required.) (Degree Credit)

## PSY 202 F Research Methods in Psychology (3)

Prerequisite: PSY 101 F
Corequisite: PSY 161 F
Two hours lecture and three hours lab per week. This course is designed for students who wish to explore in greater depth the theories, concepts, and research areas of methods of modern day psychology. Emphasis is on the scientific study of human behavior and mental processes using experimental and other research strategies. Skills in designing, implementing, analyzing, and writing scientific research studies will be included. Opportunities for field experiences in various psychological settings, such as research centers and regional psychological conferences are available. Consideration of research in multicultural contexts is addressed. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## PSY 219 F The Human Services (3)

Three hours of lecture per week. Material covered includes discussions of the history and philosophy of the human services. Goals of various human service agencies will be explored through field trips and guest speakers. Career requirements for various human service occupations will be covered including licensing and educational requirements. By the end of the course the student will be able to identify human service opportunities at various public and private agencies. (CSU) (Degree Credit)

## PSY 222 F Abnormal Psychology (3)

Prerequisite: PSY 101 F or PSY 110 F with a grade of "C" or better Three hours of lecture per week. This course presents a scientific field that seeks to understand the nature and causes "deviant" or "unusual" behavior in human beings both within and across culture. This course surveys types of abnormal behavior and their causes using current clinical DSM criteria used by professional clinical psychologists and major organizing theories selected from among those represented by humanism, behaviorism, psychoanalytic theory, and the psychobiological models. Methods of research, assessment, and treatment are explored. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## PSY 251 F Social Psychology (3)

Prerequisite: Completion of or concurrent enrollment in PSY 101 F or PSY 110 F with a grade of "C" or better
Three hours lecture per week. This course presents a scientific field that seeks to understand the nature, causes and influences of social group situations upon the individual and of the individual upon the group. In this survey course students will be exposed to basic theories, concepts and empirical findings in such areas as social perception, social cognition, prejudice and discrimination, interpersonal attraction, conformity and obedience, bystander effects, social aggression, group dynamics, attribution theory, and development of self in the social setting. New material is integrated with respect to materials already learned in general psychology. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

## PSY 251HF Honors Social Psychology (3)

Prerequisite: Completion of or concurrent enrollment in PSY 101 F or PSY 110 F with a grade of "C" or better
Three hours lecture per week. This course enriched for honors students, presents a scientific field that seeks to understand the nature, causes and influences of social group situations upon the individual and of the individual upon the group. In this survey course students will be exposed to basic theories, concepts and empirical findings in such areas as social perception, social cognition, prejudice and discrimination, interpersonal attraction, conformity and obedience, by-stander effects, social aggression, group dynamics, attribution theory, and development of self in the social setting. New material is integrated with respect to materials already learned in general psychology. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

## PSY 299 F Psychology Independent Study II (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken three times for credit. (CSU) (UC review required) (Degree Credit)

## Reading (READ)

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: www.humanities.fullcoll.edu

## Reading Courses

## READ 027 F Basic Study Skills (3)

Pass/No Pass only
Three hours lecture and one hour lab per week. This course is designed to help students with limited academic backgrounds experience college success by overcoming college anxiety and by taking responsibility for their college experience. Intensive practice and guidance in campus orientation, organizing, note taking, textbook mastery and test-taking.

## READ 036 F Basic Reading (3)

Pass/No Pass only
Three hours lecture and two hours lab per week. This course is designed for native speakers of English who require instruction in basic reading. The course includes such areas as word recognition, literal comprehension, vocabulary development, and study techniques. The course accommodates the wide range of individual adult literacy needs.

## READ 056 F Developmental Reading (3)

Pass/No Pass only
Prerequisite: READ 036 F or recommended score on the reading placement test
Three hours lecture and two hours lab per week. Recommended for students whose reading placement test scores indicate a substantial need for reading improvement, This course introduces students to several skills in reading such as main idea, relevance of detail, vocabulary in context, and inference building to enable greater success in college courses.

## READ 096 F Preparation for College Reading (3)

Letter Grade or Pass/No Pass option
Prerequisite: READ 056 F or recommended score on the reading placement test
Three hours lecture and one hour lab per week. This course will prepare students for the demands of college reading and vocabulary in various academic subjects. Content area reading, essays, and journal articles will be critically analyzed with an emphasis placed on fundamental comprehension reading skills, both general and academic vocabulary enhancement, study skills strategies, and principles of study reading. Written summaries and demonstration of organizational structure of reading materials will be required.

## READ 127 F College Study Skills (2)

Letter Grade or Pass/No Pass option
Prerequisite: READ 096 F or recommended score on the reading placement test
Two hours lecture and one hour lab per week. The goal of the course is to learn strategies needed to succeed in college and in life. Topics include evaluation of goals, motivation, learning styles, diet, nutrition and exercise, stress management and time management. Strategies for success will include campus and community resources, techniques for active learning, concentration, memory, peak hours of learning and collaborative learning. Listening, note-taking, effective textbook reading, test preparation and test-taking skills are developed. (CSU) (Degree Credit)

## READ 133 F Rapid Reading (3)

Letter Grade or Pass/No Pass option
Prerequisite: READ 096 F with a grade of " $C$ " or better or recommended score on the reading placement test
Three hours lecture per week. Group and individual instruction is designed to improve reading rate and flexibility for students reading at college level. Instruction will focus on purposeful, active, efficient comprehension at higher reading speeds, and vocabulary development. (CSU) (Degree Credit)

## READ 142 F College Reading: Logical Analysis and Evaluation (3) <br> Letter Grade or Pass/No Pass option

Prerequisite: READ 096 F with a grade of "C" or better or recommended score on the reading placement test
Three hours lecture and one hour lab per week. This course offers the student the opportunity to increase critical reading ability, vocabulary, and reading speed. Emphasis is placed on learning the strategies necessary to analyze and evaluate the validity and logic of written communication. (CSU) (Degree Credit) AA GE, CSU GE

## READ 165 F Advanced Vocabulary for Power Reading (3)

Letter Grade or Pass/No Pass option
Prerequisite: READ 096 F with a grade of "C" or better or recommended score on the reading placement test
Three hours lecture per week. The course improves reading comprehension and communication skills through the acquisition of advanced vocabulary. The emphasis will be on receptive and expressive language, critical/analytical college reading, etymology, roots, affixes, denotative and connotative meanings, appropriate usage and the development of language awareness and appreciation to insure lifelong vocabulary growth. (CSU) (Degree Credit)

## Real Estate (RE)

Business and CIS Division
Office: Bldg 300
714.992.7032

Dean: Ann Hovey
Website: http://bizdiv.fullcoll.edu

## Real Estate Management Associate in Science Degree Real Estate Management Certificate Real Estate Sales Certificate

## Real Estate Courses

## RE 090 F Current Issues in Real Estate (.5-3)

Zero to three hours lecture plus 0-9 hours lab per week. This course offers timely real estate topics designed to enhance job skills, expand the student's knowledge of the marketplace, and increase employment opportunities. Unit credit may range from .5-3 units in any given semester. Consult the class schedule to verify specific topic area and credit for a particular semester. Course may be taken four times for credit. (Degree Credit)

## RE 101 F Principles of Real Estate (3)

Three hours lecture per week. A beginning course in real estate fundamentals and principles. The development of real estate in California and an introductory study of ownership, appraisal, law, practices, financing, land and location values, transfers, trends, regulations, and economic effects are stressed. Course fulfills educational prerequisite for California state licensure. (CSU) (Degree Credit)

## RE 102 F Legal Aspects of Real Estate (3)

Three hours lecture per week. This course covers California real property law. Topics include acquisitions and transfers, methods and incidents of ownership, easements, fixtures, land descriptions, recording, covenants, conditions and restrictions, zoning ordinances, leases, brokers, escrow, title insurance, and probate proceedings. (May not be offered each semester. If interested, please contact the Business and CIS Division Office.) (CSU) (Degree Credit)

## RE 201 F Real Estate Practice (3)

Three hours lecture per week. This course covers professional aspects of the real estate business. Topics include an overview of the real estate industry, ethics and licensing requirements; hands-on completion of contracts, forms, and disclosure documents; prospecting strategies for obtaining clients; listing properties and servicing those listings; marketing techniques; strategies for showing property; obtaining and handling offers; closing sales transactions; financing, escrow, title and taxation issues; and 1031 exchange requirements for investment property. NOTE: Course qualifies for continuing education for real estate licensees. (CSU) (Degree Credit)

## RE 202 F Real Estate Finance (3)

Three hours lecture per week. This course covers various financing options for California real estate transactions. Topics include government loan programs, creative financing, loan sources, types of lenders, financing investment property, foreclosures, first-time buyer programs, solving financing challenges for low to moderate income purchasers, the problems, policies, and risks involved in financing a variety of estate properties. Techniques of using security devices, legal aspects of mortgages and related instruments, return of mortgage and equity capital, where and how to best obtain funds, procedures in financing real estate sales and exchanges, governmental impact, junior financing and mathematics of real estate finance are also included. NOTE: Course qualifies for continuing education for real estate licensees. (May not be offered each semester. If interested, please contact the Business and CIS Division Office.) (CSU) (Degree Credit)

## RE 203 F Appraisal - Residential (3)

Three hours lecture per week. This course is designed to interpret real estate valuation procedures, examine real estate appraisal used in establishing real estate market values, and develop the knowledge and skills necessary for application or interpretation of appraisal information. Topics include the uniform standards of professional appraisal practice, location analysis and site evaluation, the appraisal process, reproduction cost estimating, depreciation, market data and interpretation, cost, income approaches to value, and the appraisal report. NOTE: Course qualifies for continuing education for real estate licensees. (May not be offered each semester. If interested, please contact the Business and CIS Division Office.) (CSU) (Degree Credit)

## RE 204 F Appraisal - Income (3)

Three hours lecture per week. This course is a continuation of the appraisal techniques studied in RE 203 F Appraisal - Residential and covers property other than the single-family residence. The income approach and capitalization techniques are emphasized. Also included is an in-depth study of the following: discounted cash flow, valuation of partial and leasehold interests, and uniform standards of professional appraisal practice, interpretation, cost and income approaches to value, and the appraisal report. (May not be offered each semester. If interested, please contact the Business and CIS Division Office.) (CSU) (Degree Credit)

## RE 205 F Property Management (3)

Three hours lecture per week. This course covers the management, maintenance, rehabilitation, purchase, and sale of income property. It is intended for property owners and those wishing to become property managers. Topics covered in the course include management of residential, commercial, and industrial properties. Discussions for these various types of properties will revolve around examinations of leases and lease negotiation, tenant relations, maintenance, modernization and decoration, rehabilitation, insurance, tax aspects, office management, public relations, and advertising. NOTE: Course qualifies for continuing education for real estate licensees. (May not be offered each semester. If interested, please contact the Business and CIS Division Office.) (CSU) (Degree Credit)

## RE 206 F Real Estate Economics (3)

Three hours lecture per week. This course covers the economic principles used to analyze the impact that national, regional, community, and neighborhood trends have on real estate values. General economic theory and applied real estate practices are linked. Students will apply these principles in order to analyze an investment in an actual multi-unit apartment building. (May not be offered each semester. If interested, please contact the Business and CIS Division Office.) (CSU) (Degree Credit)

## RE 207 F Mortgage Loan Brokering in California (3)

Three hours lecture per week. This course covers the aspects of mortgage brokering operations. Topics include understanding the history of the mortgage loan brokerage business; developing and marketing your own mortgage loan brokerage business; developing a business plan; selecting the proper loan for a prospective borrower; understanding and completing Federal Truth in Lending compliance and disclosure requires; pre-qualifying prospective borrowers; completing a loan application package; calculating an underwriting worksheet, and identifying potential "Red Flag" lending problems. NOTE: Course meets Department of Real Estate Requirements for Broker and Salesperson licenses. (CSU) (Degree Credit)

RE 208 F Basic Appraisal Principles and Procedures (3.5)
Three and one half hours lecture per week. This course focuses on developing an understanding of the principles/procedures of basic residential appraisal. Course meets the license requirements for all appraisal licenses, for broker and salesperson licenses, as well as Fullerton College certificate requirements. (CSU) (Degree Credit)

## RE 209 F Residential Real Estate Appraisal (3.5)

Three and one half hours lecture per week. This course focuses on developing an understanding of residential real estate appraisal. Course meets the license requirements for all appraisal licenses, for broker and salesperson licenses, as well as Fullerton College certificate requirements. (CSU) (Degree Credit)

## RE 210 F Advanced Residential Applications and Residential Report Writing (3.5)

Three and one half hours lecture per week. This course focuses on developing an understanding of the principles/procedures of advanced residential applications and report writing. Course meets the license requirements for all appraisal licenses, as well as Fullerton College certificate requirements. (CSU) (Degree Credit)

## RE 212 F Uniform Standards of Professional Appraisal Practice (USPAP) (1)

One hour lecture per week. This course is designed to meet the requirements of the Appraisal Qualifications Board (AQB) of the Appraisal Foundation for state licensing and certification. This course includes the national exam as required by the AQB. Completion of this course and successful completion of the three-hour national exam (the course final exam) are required by the California Office of Real Estate Appraisers (OREA) for initial trainee licensure. (CSU) (Degree Credit)

## RE 298 F Advanced Topics in Real Estate (.5-3)

Zero to three hours lecture and/or zero to nine hours lab per week. This course offers advanced real estate topics designed to enhance job skills, expand the student's knowledge of the marketplace, and increase employment opportunities. Unit credits may range from .5 to 3 units in any given semester. Consult the class schedule to verify specific topic area and credit for a particular semester. (CSU) (Degree Credit)

## Recreation (REC)

Physical Education Division<br>Office: Bldg 2200<br>714.992.7045<br>Dean: Peter Snyder<br>Website: pe.fullcoll.edu

## Recreation Courses

REC 100 F Introduction to Leisure Services/Recreation (3) Three hours lecture per week. This course is designed to introduce the students to the history, scope, significance and trends of recreation in our contemporary society. Students will study the institutions and agencies, which provide leisure opportunities for the community. They will survey career opportunities and educational requirements for recreational leaders. (CSU) (Degree Credit)

## REC 104 F The Zen of Camping (1)

One-half hour lecture, One and one-half hour lab per week. Instruction in the skills, techniques and methods specific to Zen and Taoism as related to their origin in nature and the martial arts. Includes elements of kung fu and tai chi relevant to wilderness experiences as well as philosophical practices oriented towards self-discovery and self-mastery. May include one camping trip. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## REC 105 F Survival Arts (1)

One-half hour lecture, two hours lab per week. Students learn longterm survival skills and arts used by primitive peoples to live in harmony with the environment and a new perspective of the word "primitive," meaning "first people." Students develop a new appreciation of nature, as opposed to being a visitor. Students also gain an appreciation of the values inherent to other cultures. Includes one field trip. Course may be taken four times for credit. (CSU) (Degree Credit)

## REC 107 F Wilderness Survival (1)

One-half hour lecture, two hours lab per week. Instruction in the skills and attitudes necessary to survive in a variety of environments, including alpine, mountain, desert, sea and urban survival. Investigates the nature of survival experiences and the use of such experiences for challenge and personal growth. Includes one survival trip. Course may be taken four times for credit. (CSU) (Degree Credit) CSU GE

## REC 108 F Backpacking (1)

One-half hour lecture, two hours lab per week. Instruction in the skills, techniques and enjoyment of backpacking. Students learn how to plan a trip to maximize personal experiences in the wilderness for both personal fulfillment and self-discovery. This course includes one backpacking trip. Course may be taken four times for credit. (CSU) (Degree Credit) CSU GE

## REC 109 F Camping and Our Surfing Environment (1)

One hour lecture and two hours lab per week. This course combines surf travel and environmental issues concerning our surfing culture. The class will emphasize safe camping and safe surfing, while incorporating units on water safety, ocean currents, surfing technique, camping planning and organization, international travel, water pollution, water treatment and beach protection and beach erosion. $\$ 100$ facility fee required. Course may be taken four times for credit. (CSU) (UC Credit Limitation) (Degree Credit)

## REC 110 F Camping and Our Kayaking Environment (1)

One half hour lecture and one and one half hour lab per week. This course combines travel and environmental issues concerning our ocean kayaking population. The class will emphasize safe camping and safe kayaking, while incorporating units on water safety, ocean currents, kayaking technique, camp planning and organization, international travel, water pollution, water treatment, and beach protection. Course may be taken four times for credit. $\$ 400$ facility fee required. (CSU) (UC Credit Limitation) (Degree Credit)

REC 111 F Camping and Our Bodyboarding Environment (1) Two hours lab plus one hour arranged per week. This course combines bodyboard travel and environmental issues concerning our surf culture. The class will emphasize safe camping and safe bodyboarding, while incorporating units on water safety, ocean currents, bodyboarding technique, camping planning and organization, intra- and international travel, water pollution, water treatment, and beach protection and beach erosion. $\$ 100$ facility fee required. Course may be taken four times for credit. (CSU) (Degree Credit)

## Russian (RUSS)

Humanities Division<br>Office: Bldg 500, Room 522-O<br>714.992.7036<br>Dean: Dan Willoughby<br>Website: www.humanities.fullcoll.edu

## Russian Courses

## RUSS 101 F Elementary Russian I (5)

Letter Grade or Pass/No Pass option
Prerequisite: Reading clearance is recommended
Five hours lecture plus one arranged lab hour per week. This course focuses on the four major skills of language learning - listening comprehension, speaking, reading and writing, and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Russian-speaking countries. This course is conducted primarily in Russian. NOTE: This course is currently not being offered at Fullerton College. AA GE, CSU GE

RUSS 102 F Elementary Russian II (5)
Letter Grade or Pass/No Pass option
Prerequisite: RUSS 101 F with a grade of "C" or better or one year of high school Russian with a grade of " $C$ " or better
Five hours lecture plus one arranged lab hour per week. This course continues to focus on the four major skills of language learning listening comprehension, speaking, reading and writing, and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Russian-speaking countries. This course is conducted primarily in Russian. NOTE: This course is currently not being offered at Fullerton College. (CSU) (UC) AA GE, CSU GE, IGETC

## RUSS 299 F Russian Independent Study (1)

Prerequisite: Four semesters of the language
One hour lecture or scheduled conference per week. For able students who wish to increase their knowledge of literature, culture, language, or composition through individual study or research. Elective credit in the humanities area. Course may be taken three times for credit. NOTE: This course is currently not being offered at Fullerton College.

## Social Sciences (SOSC)

## Social Sciences Division

Office: Bldg 1400, Room 1415
714.992.7047

Dean: Dan Tesar
Website: http://socsci.fullcoll.edu/

## Pending State Approval <br> Associate in Arts Degree

## Social Sciences Courses

SOSC 120 F Introduction to Probability and Statistics I (4)
Prerequisite: MATH 040 F with a grade of " $C$ " or better
Four hours lecture per week. This course is an introduction to probability and statistics. This course covers descriptive and inferential statistics as well as the probabilistic basis of statistical inference. Computers and calculators will be utilized. Data sets and problems will be from anthropology, economics, geography, political science, psychology and sociology. This course is open to all students who meet the prerequisite, but is required for anthropology and sociology majors. This course is strongly recommended for economics, ethnic studies, geography and political science majors. Psychology majors should seek the advice of a counselor before choosing between PSY 161 F and this course. Students who receive credit for this course may not receive credit for MATH 120 F. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

SOSC 121 F Introduction to Probability and Statistics II (4) Prerequisite: SOSC 120 F with a grade of "C" or better
Four hours lecture per week. A continuation of SOSC 120 F Introduction to Probability and Statistics. This course covers descriptive and inferential statistics, as well as the probabilistic basis for statistical inference. Computers and calculators will be utilized. Data sets and problems will be from anthropology, economics, geography, political science, psychology and sociology. SOSC 120 F and SOSC 121 F combined are equivalent to UC-M. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

## Sociology (SOC)

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

## Associate in Arts Degree

## Sociology Courses

## SOC 101 F Introduction to Sociology (3)

Three hours lecture per week. This course introduces concepts, theories and vocabulary associated with the field of sociology. The major sociological perspectives are explored surrounding: social control, social interaction, social differentiation, and social institutions. The processes of social change are understood in the context of collective human behavior. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## SOC 101 HF Honors Introduction to Sociology (3)

Three hours lecture per week. This course introduces concepts, theories and vocabulary associated with the field of sociology. The major sociological perspectives are explored surrounding: social control, social interaction, social differentiation, and social institutions. The processes of social change are understood in the context of collective human behavior. Fulfills the Multicultural Education Requirement for graduation. As an Honors section, this class will employ enhanced teaching methods such as a seminar approach, more research-based writing assignments, and assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## SOC 102 F Social Problems (3)

This course includes identification and analysis of selected contemporary social problems in American society and around the world, including problems of overpopulation, environmental destruction, war, race, poverty, sex inequality, aging, drug abuse, health, crime and violence. Alternative approaches to the resolution of these problems and identification of institutions and organizations involved in the resolution of these problems are emphasized. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC, MULT CULT REQ

## SOC 133 F Introduction to Gerontology (3)

Three hours lecture per week. This course is a multidisciplinary review of the characteristics, strengths and problems of older persons. Exploration includes basic theories, concepts, demographic trends, cross-cultural aspects, social policies, political and economic issues. Emphasis upon available services for older adults. The course will focus on various care settings, including the familial caregiver level. Education for careers in gerontology will be highlighted. (CSU) (Degree Credit)

## SOC 199 F Sociology Independent Study I (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken four times for credit. (CSU) (UC Credit Limitation depending upon course content; UC review required.) (Degree Credit)

## SOC 201 F Dying and Death (3)

Three hours lecture per week. This course includes various perspectives on death, both cross-cultural and historical. Examines beliefs, traditions, rituals and practices surrounding death in American society; health care systems (the hospital and the dying patient, hospice, etc.); death and the process of dying; bioethics - dying in the technology age; euthanasia suicide, funerals, grief and bereavement; the law and death, including living wills, organ donation, and autopsies; also life after death - old and new meanings. (CSU) (Degree Credit) CSU GE

## SOC 225 F Sociology of Women (3)

Three hours lecture per week. The course includes identification and analysis of the status of women in American society, and a survey of the cultural, social, psychological and economic history of women. Contemporary issues and their relation to the role definition of women today are explored. (CSU) (UC Credit Limitation - Same as WMNS 225 F) (Degree Credit) CSU GE

## SOC 225HF Honors Sociology of Women (3)

Three hours lecture per week. This course is a woman-centered introduction to the study of gender in the United States. It emphasizes knowledge gained from research in the various social sciences and the discussions of issues are both theoretical and practical. Topics are issues that impact the lives of women today, including: women's health, sexuality, relationships, employment, and familial roles. As an Honors section, this class will employ enhanced teaching methods such as a seminar approach, more research based writing assignments, and assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE

## SOC 275 F Marriage and Family (3)

Three hours lecture per week. This course is a sociological exploration of the topics related to the institutions of marriage and family. These topics include: gender roles, love, single hood, courtship, marriage, domestic partnerships, communication, sexuality, parenting, conflict, domestic violence, economics, divorce, step-families, diversity in families (historically and cross-culturally) and future family trends. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## SOC 275HF Honors Marriage and Family (3)

Three hours lecture per week. This course is a sociological exploration of the topics related to the institutions of marriage and family. These topics include: gender roles, love, single hood, courtship, marriage, domestic partnerships, communication, sexuality, parenting, conflict, domestic violence, economics, divorce, step-families, diversity in families (historically and cross-culturally) and future family trends. As an Honors section, this class will employ enhanced teaching methods such as a seminar approach, more research based writing assignments, and assignments calling for a higher level of critical thinking. (CSU) (UC Credit Limitation) (Degree Credit) CSU GE, IGETC

## SOC 285 F Drugs and Society (3)

Three hours lecture per week. This course introduces concepts, theories and perspectives associated with the sociological analysis of drugs and alcohol. The definitions of various types of drug use, as well as drug abuse, and drug dependence will be addressed. The pharmacological perspective will also be explained, including the factors that influence drug action and the classification of psychoactive drugs and their effects. Legal drugs, such as alcohol, tobacco, and psychotherapeutic drugs will be discussed and analyzed using the sociological perspective. (UC) (CSU) (Degree Credit) CSU GE, IGETC

## SOC 292 F Introduction to Criminology (3)

Three hours lecture per week. This course is a study of theories of crimes and criminal behavior, including an explanation of crime, its causes, and how crime is measured. Major sociological and social science theories will be explored surrounding the issues of crime and criminal behavior. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## SOC 299 F Sociology Independent Study II (1)

One hour lecture or scheduled conference per week. This course is offered for students who wish to increase their knowledge of the Social Sciences through individual study and small group conferences. Students successfully completing this course will be awarded elective credit in the Social Sciences area. Course may be taken four times for credit. (CSU) (UC review required) (Degree Credit)

## Spanish (SPAN)

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: humanities.fullcoll.edu

## Spanish Courses

## SPAN 050AF Public-Service Spanish I (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week. An introductory oral course open to students with no previous exposure to Spanish who want a speaking knowledge for vocational needs in the fields of medicine, social welfare, law enforcement, business, etc. No prerequisite required.

## SPAN 050BF Public-Service Spanish II (3)

Letter Grade or Pass/No Pass option
Prerequisite: SPAN 050AF or previous experience with Spanish
Three hours of lecture per week. Continuation of 050AF Public-Service Spanish.

## SPAN 101 F Elementary Spanish I (5)

Letter Grade or Pass/No Pass option
Five hours lecture per week plus one arranged lab hour per week. The course focuses on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Spanish-speaking countries. This course is conducted primarily in Spanish. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE

## SPAN 101 HF Honors Elementary Spanish I (5)

Five hours lecture per week and one arranged lab hour per week. A college level course enhanced for honor students. This course requires significant individual projects and study plans on the part of the student. The course focuses on the four major skills of language learning listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Spanish-speaking countries. This course is conducted primarily in Spanish. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE

## SPAN 102 F Elementary Spanish II (5)

Letter Grade or Pass/No Pass option
Prerequisite: SPAN 101 F with a grade of " $C$ " or better or one year of high school Spanish with a grade of " $C$ " or better
Five hours lecture per week plus one arranged lab hour per week. The course continues to focus on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Spanish-speaking countries. This course is conducted primarily in Spanish. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## SPAN 102HF Honors Elementary Spanish II (5)

Prerequisite: SPAN 101 F with a grade of " $C$ " or better or one year of high school Spanish with a grade of " $C$ " or better
Five hours lecture per week plus one arranged lab hour per week. A college level course enhanced for honors students. This course requires significant individual projects and study plans on the part of the student. The course continues to focus on the four major skills of language learning - listening comprehension, speaking, reading and writing - and the grammar and vocabulary necessary to acquire these skills. Included is an introduction to customs, culture, and civilization of Spanish-speaking countries. This course is conducted primarily in Spanish. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

SPAN 130 F Spanish History and Culture (3)
Letter Grade or Pass/No Pass option

## Prerequisite: SPAN 101 F

Three hours lecture per week. This course studies major historical events, archaeological sites, geographical areas and cultural points of interest in Spanish-speaking countries. It is designed to immerse the student in direct study of a land, its people and its culture. Eight hours of lecture will precede the on-site experience. (Note: This course is currently not being offered at FC - if interested, contact Division Office.) (CSU) (Degree Credit)

## SPAN 200 F Conversational Spanish (2)

Letter Grade or Pass/No Pass option
Prerequisite: SPAN 102 F with a grade of " C " or better or two years of high school Spanish with a grade of "C" or better
Two hours lecture per week. This course will focus on improving listening comprehension and speaking skills in simulated real-life situations within the framework of the ACTFL Proficiency Guide lines. Reading, writing and cultural components will be included. This course may be taken concurrently with SPAN 203 F, SPAN 204 F, SPAN 205 F, and SPAN 206 F. Instruction will be in Spanish. Course may be taken four times for credit. (CSU) (Degree Credit)

## SPAN 201 F Spanish for the Spanish Speaker (5)

Letter Grade or Pass/No Pass option
Prerequisite: A native-speaking knowledge of Spanish for those who have had little or no education in a Spanish-speaking country
Advisory: Two years of high school Spanish
Five hours lecture per week. This is an intensive course designed to improve the communicative skills in Spanish for bilingual students. Although the course addresses all four skills of language learning listening comprehension, speaking, reading, and writing - the emphasis of the course is to improve reading and writing skills in Spanish through the study of grammar, spelling, vocabulary and composition. Selective readings of Hispanic writers will be used to enhance knowledge of literature and culture. The class is conducted primarily in Spanish. Students may not receive credit for both SPAN 101 F and SPAN 102 F and SPAN 201 F. (CSU, UC Credit Limitation: SPAN 201 F and SPAN 203 F combined; maximum credit one course.) (Degree Credit) AA GE, CSU GE, IGETC

## SPAN 203 F Intermediate Spanish III (4)

Letter Grade or Pass/No Pass option
Prerequisite: SPAN 102 F with a grade of " $C$ " or better or two years of high school Spanish with a grade of " $C$ " or better
Four hours lecture per week. Further development of listening and reading comprehension, speaking and writing Spanish based on cultural and literary materials. This course emphasizes oral communication and provides an expanded review of key grammatical concepts. (CSU) (UC Credit Limitation: SPAN 203 F and SPAN 201 F combined; maximum credit, one course) (Degree Credit) AA GE, CSU GE, IGETC

## SPAN 204 F Intermediate Spanish IV (4)

Letter Grade or Pass/No Pass option
Prerequisite: SPAN 201 F or 203 F with a grade of "C" or better or three years of high school Spanish with a grade of "C" or better
Four hours lecture per week. The course continues to emphasize acquisition of the more formal aspects of literary analysis and cultural appreciation through a selection of advanced readings by modern Spanish and Spanish American authors. It also provides extensive practice in oral and written expression and a thorough review of grammatical concepts. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## SPAN 205 F Introduction to Spanish Literature (3)

Letter Grade or Pass/No Pass option
Prerequisite: SPAN 204 F or four years of high school Spanish with a grade of " $C$ " or better
Three hours lecture per week. Introductory Spanish Literature survey course spanning from the Middle Ages to the present covering history, culture and literary writings from Spain. The instruction is in Spanish. (CSU) (UC) (Degree Credit) CSU GE, IGETC

SPAN 206 F Introduction to Latin-American Literature (3)
Letter Grade or Pass/No Pass option
Prerequisite: SPAN 204 F or four years of high school Spanish with a grade of " $C$ " or better
Three hours lecture per week. Introductory Latin American Literature survey course spanning from pre-Columbian literature to the present covering history, culture and literary writings from Latin American countries. The instruction is in Spanish. (CSU) (UC) (Degree Credit) CSU GE, IGETC, MULT CULT REQ

## SPAN 207 F Children's Literature in Spanish (3)

Letter Grade or Pass/No Pass option
Prerequisite: SPAN 203 F
Three hours lecture per week. This is an introductory course in Spanish children's literature. Emphasis is placed on the development of oral interpretation skills. Practical skills are given in locating appropriate literature for Spanish-speaking children and adolescents. The focus will be on Latin American and/or Spanish mythology, folklore, contemporary short stories, poetry, drama, games and songs for children. This course is recommended for the bilingual instructor. Instruction is almost entirely in Spanish. (Not currently being offered - if interested, contact Division Office.) (CSU) (UC) (Degree Credit) CSU GE

## SPAN 299 F Spanish Independent Study (1)

Prerequisite: Four semesters of the language
One hour lecture or scheduled conference per week. For able students who wish to increase their knowledge of composition, literature, culture, or language through individual study or research. Elective credit in the humanities area. Course may be taken three times for credit. (CSU) (UC review required) (Degree Credit)

## Speech (SPCH)

Humanities Division
Office: Bldg 500, Room 522-O
714.992.7036

Dean: Dan Willoughby
Website: humanities.fullcoll.edu

## Associate in Arts Degree

## Speech Courses

## SPCH 100 F Public Speaking (4)

Advisory: College level reading and writing
Four hours lecture per week. The purpose of the course is to give speakers more concentrated opportunities to communicate their ideas. Emphasis is on developing the speaker's ability to present original subject matter. This is accomplished by the preparation and presentation of four to six informative and persuasive speeches as well as various in-class assignments and exercises designed to develop speaking proficiency by skillfully using logic and reasoning. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## SPCH 105 F Interpersonal Communication (3)

Advisory: College level reading and completion of ENGL 060 F
Three hours lecture per week. The course explores the variables of the human symbolic interaction as they occur in day-to-day, face-to-face interaction. Topics include self-concept, perception, listening, verbal and nonverbal communication, assertive communication, and conflict resolution. Material is presented through lecture, experiential activities, and group discussion. (CSU) (UC) (Degree Credit) AA GE, CSU GE

## SPCH 120 F Intercultural Communication (3)

Advisory: College level reading and completion of ENGL 060 F
Three hours lecture per week. This course explores the variables of human symbolic interaction as they occur between persons of differing cultural orientations. The course is theoretical in nature, but will also deal with applied concepts for more successful interaction with other cultures. The scope of the content will encompass the basic areas necessary to involve the student in a critical assessment of how cultures differ in both verbal and nonverbal behaviors; how needs, values, and goals are dictated by cultural influences; how interactions can be improved between cultures through a perceptual awareness of these differences. This course fulfills the Multicultural Education Requirement for graduation. (CSU) (UC) (Degree Credit) AA GE, CSU GE, MULT CULT REQ

## SPCH 124 F Small Group Communication (3)

Advisory: College level reading and completion of ENGL 060 F
Three hours lecture per week. This course is an introduction to theoretical and applied concepts in small group communication through participation, observation, analysis, and evaluation of group processes. Elements of small group behavior to be studied include leadership, roles, norms, networks, message systems, interpersonal needs, and decision making. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## SPCH 135 F Essentials of Argumentation (4)

Advisory: College level reading and writing
Four hours lecture per week. The purpose of the course is to help an individual develop critical thinking abilities and effective logical support for oral advocacy. The course serves as an introduction to theoretical and applied concepts of argumentation. In-class student presentations will be used to evaluate course areas of research, reasoning, organization, refutation, and issue analysis. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## SPCH 138 F Forensics (.5-1)

Advisory: College level reading and writing
One to two hours lab per week plus one half to one hour arranged lab per week. This course trains students to participate in intercollegiate speech tournaments and public community programs. Areas to be covered include expository speaking, persuasive speaking, impromptu and extemporaneous speaking, oral interpretations, and debate. Field trips and involvement in student activities will be required. (CSU) (Degree Credit)

# Student Support Services (STSV) 

## Student Support Services Division

Office: Bldg 2000
714.992.7092

Dean: Robert Miranda (Interim)

## Student Support Services Courses


#### Abstract

STSV 071 F Adaptive Computer Access: Word Processing (.5-2) Open Entry/Open Exit Pass/No Pass only One to six hours of guided instruction, depending on units attempted and flexible hours by arrangement. This course is designed for students with learning, visual, physical, communicative disabilities or acquired brain injuries. Students will receive guided instruction/application in the introduction and use of computers and adaptive computer access technologies within the context of word processing. May be taken four times for credit.


## STSV 072 F Learning Assessment (.5)

Open Entry/Open Exit
Pass/No Pass only
Eight hours arranged. This course is an intensive diagnostic learning assessment for students with learning disabilities which have had the effect of impeding academic performance. Emphasis will be placed on assessing specific academic and learning modality strengths and weaknesses. A student educational contract (SSEC) outlining long term goals/ short term objectives for identified eligible students with learning disabilities will be developed.

STSV 075 F Adaptive Computer: Learning Strategies (.5-2) Open Entry/Open Exit
Pass/No Pass only
One to six hours of guided instruction per week depending on units attempted and flexible hours by arrangement. Students will receive computer-assisted instruction to improve learning strategies, problem solving and cognitive skills and proficiency in basic skills areas.

## STSV 135 F Introduction to Leadership Development (same as COUN 135 F) (3)

Three hours lecture per week. This course is designed to provide emerging and existing student leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. Students will learn the role that communication, motivation, delegation, selfassessment, planning, time management, evaluation and governance play in enabling a successful organization. Focus will include: parliamentary procedure, program development, stress reduction and time management. Students who receive credit in this course will not receive credit in COUN 135 F. (CSU) (Degree Credit)

## STSV 136 F Applied Leadership <br> (same as COUN 136 F) (3)

One hour lecture and two hours participation in campus organizations required each week. The course is designed to give students the skills and proper knowledge to participate in student government. Students critically reflect on their goals, objectives and action plans and review their own performance along with assessing the organizational environment. Course may be taken two times for credit. (This course and COUN 136 F are equivalent courses, only 3 units maximum can be earned for any combination.) (CSU) (Degree Credit)

## STSV 223 F Helping Skills in Human Services (3)

Three hours lecture and discussion per week. This course is an introductory course for students interested in pursuing a career in a human service area (i.e., counseling, probation work, social work, nursing, etc.). It provides students with an opportunity to develop beginning counseling and human relations skills. Students will learn basic listening/ communication skills, crisis-intervention techniques, as well as a theoretical understanding of the principles and used in providing services in a helping relationship. (CSU) (Degree Credit)

## STSV 299 F EOPS Independent Study (1)

Three hours independent research per week per unit of credit. This course is designed for students who wish to increase their knowledge of human services related topics through individual study. Outside reading with written report is required. Course may be taken three times for credit. (CSU) (UC review required) (Degree Credit)

## Technology-Related Courses (TECH)

Technology and Engineering Division
Office: Bldg 700, Room 700
714.992.7051

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

## Technology-Related Courses

TECH 081 F Technical Mathematics I (3)
Prerequisite: Math clearance or MATH 010 F
Three hours lecture per week. The use of elementary algebra, geometry, and right triangle trigonometry in the solution of practical problems related to trade and technical areas. Emphasizes the use of electronic calculators to do the computation. This course does not transfer to CSU. (Degree Credit) AA GE

## TECH 082 F Technical Mathematics II (3)

## Prerequisite: TECH 081 F

Three hours lecture per week. The study of more advanced algebra, trigonometry, and elementary statistics in the solution of technical problems. This course does not transfer to CSU. (Degree Credit)

## TECH 088 F Technical Science (3)

Three hours lecture per week. A course in the fundamental principles of physics, mechanics, heat, light, and strength of materials as applied to practical shop problems. (Degree Credit) AA GE

## TECH 108 F Manufacturing Processes (3)

Three hours lecture per week. The objective of this course is to give an insight into and develop an appreciation of the latest manufacturing techniques, materials, and skills used in the metal processing, plastic, and powder metallurgy industries. (CSU) (Degree Credit)

## TECH 127 F Industrial Safety (1)

Two hours lecture per week for nine weeks. As it applies to all majors in Technology and Engineering, it will include scope, history, objectives, responsibility, and organization of safety as it relates to common industrial equipment. (CSU) (Degree Credit)

## TECH 199 F Technology and Engineering Independent Study (1-3)

Prerequisite: Introductory course in appropriate subject area
One hour lecture of scheduled conference or three hours independent lab research per week per unit of credit. Designed for advanced students who wish to increase their knowledge of technical areas through individual study. Independent lab research problems with staff supervision may be approved. Project with written report or outside reading with written report is required. Course may be taken three times for credit. (CSU) (UC review required.) (Degree Credit)

## TECH 299 F Technology and Engineering Independent <br> \section*{Study (1-3)}

Prerequisite: Introductory course in appropriate subject area One hour lecture of scheduled conference or three hours independent lab research per week per unit of credit. Designed for advanced students who wish to increase their knowledge of technical areas through individual study. Independent lab research problems with staff supervision may be approved. Project with written report or outside reading with written report is required. Course may be taken three times for credit. (CSU) (UC review required) (Degree Credit)

# Theatre Arts Drama (THEA) 

Fine Arts Division<br>Office: Bldg 1300<br>714.992.7034<br>Dean: Bob Jensen<br>Website: finearts.fullcoll.edu

Associate in Arts Degree Costume Wardrobe Certificate<br>Lighting Technician Certificate<br>Musical Theatre Certificate<br>Advanced Musical Theatre Certificate<br>Scenic Artist Certificate<br>Sound Technician Certificate<br>Stage Management Certificate<br>Technical Theatre Certificate<br>Theatrical Costumer Certificate<br>Advanced Theatrical Costumer Certificate<br>Pending State Approval<br>Assistant Costume Designer Certificate<br>Costume Cutter/Draper Certificate<br>Costume Stitcher Certificate

## Theatre Arts Courses

## THEA 072 F Movement and Performance Skills for Musical Theatre (1)

One hour lecture and one hour lab per week. This exciting summer theatre program is an in-depth analysis and application of the techniques and skills necessary for the creation of, and execution of, choreography for Musical Theatre. Emphasis is on analyzing and performing a variety of styles, culminating in a fully staged performance. Course may be taken four times for credit.

## THEA 075 F Theatrical City Tours: New York (2)

One hour lecture and one hour lab per week. This course features theatrical city tours to New York City and offers a study of current, classical, and musical plays at Broadway and off-Broadway theaters. Students will travel from Orange County to New York City and spend a week experiencing the New York theatre scene and the "Big Apple." Approximate cost for travel, accommodations and theatre tickets is $\$ 1500$. This course may be taken four times for credit.

## THEA 076 F Theatrical City Tours: London (2)

One hour lecture and one hour lab per week. This course features theatrical city tours to London, England and Stratford-upon-Avon and offers a study of current, classical, and musical plays. Students will travel from Orange County to London, England and spend a week experiencing the London theatre scene and the English countryside. Approximate cost for travel, accommodations and theatre tickets is $\$ 2000$. This course may be taken four times for credit.

THEA 100 F Introduction to the Theatre (3)
Three hours lecture per week. This course is designed for those students who wish to explore more thoroughly the art of theatrical performance with special attention given to all the contributing elements. This course examines all areas of theatre production through lecture, demonstration, lab participation, small-group discussion, guest performers, and speakers. This course prepares the student for other course offerings in the theatre curriculum. Enrollment in THEA 149 F is strongly recommended. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

THEA 104 F Introduction to Theatre Appreciation (3)
Letter Grade or Pass/No Pass option
Two hours lecture and three hours lab arranged per week. A study of the combined elements of contemporary theatre through examination of audience/performer relationships and the organization of support personnel. A study of current and classical plays, with special emphasis on dramatic analysis and cultural significance. Mandatory attendance at a selected group of live theatrical productions required. Approximate cost of semester admissions is $\$ 100$. (CSU) (UC) (Degree Credit) AA GE, CSU GE, IGETC

## THEA 105 F Musical Theatre History (3)

Three hours lecture per week. This course explores the uniquely American art form that is Musical Theatre. From its early development in the colonial period to the present time, emphasis will be placed on the chronological examination of various musical theatre productions. Students will learn how the composers, librettists, lyricists, choreographers, directors and designers contribution to the formation and the population of musical theatre as it exists today. (CSU) (UC) (Degree Credit) CSU GE, IGETC

## THEA 106 F Principles of Playwriting (3)

Three hours lecture per week. This is a practical class designed to introduce students to the elements of writing a play for the stage. Topics include dramatic structure, dramatic action, the relationship between dialogue and action, characterization, setting, theme, and point of view. Students will be assigned writing exercises culminating in a one-act play. Students will be expected to act in and direct other students' scenes. (CSU) (Degree Credit) AA GE

## THEA 108 F Multicultural Perspectives in American

 Theatre (3)Three hours lecture per week. This course provides students with an appreciation for the historical contributions of Native-Americans, Chicanos/Latinos, African-Americans, Asian-Americans and gays and lesbians to American Theatre. In this introductory class students read and discuss contemporary plays that represent the rich variety of American multi-ethnic and multi-cultural society. This course will explore traditional and cultural backgrounds from which theatre springs, the genre or movement to which a particular play belongs, and the cultural, sociological and political climate in which these plays were created. (CSU) (Degree Credit) MULT CULT REQ

## THEA 109 F Modern Dramatic Literature (3)

Three hours of lecture per week. This course involves the analysis and research of contemporary dramatic literature. Through the examination of dramaturgical structure, thematic presentation, character development and production design requirements, students will explore how analysis and research can aid in the transforming of a script into a theatrical experience. This course includes play readings, lectures, discussions and student reports. (UC) (Degree Credit) AA GE, CSU GE

## THEA 120AF Beginning Principles of Acting (3)

Corequisite: THEA 149 F (. 5 units)
Two hours lecture plus four lab per week. This course is an examination and application of theatre elements that relate directly to the actor including but not limited to criticism, emotion, stage movement, vocal techniques, theatrical terminology, rehearsal and performance techniques and script analysis. Open to all majors. (CSU) (UC) (Degree Credit)

THEA 120BF Intermediate Principles of Acting (3)

## Prerequisite: THEA 120AF

Corequisite: Technical theatre class
Two hours lecture and four hours lab per week. Advanced study in the principles and practices of contemporary acting techniques. Students will analyze and evaluate the acting theories of the Stanislavski system of acting, as assessed by the 20th century American acting leaders, i.e., Uta Hagen, Stella Adler, Robert Benedetti, Lee Strasberg, and Boleslavski. Students will apply these principles to their scene work, improvisations, workshop exercises and evaluate their progress and that of their classmates. This class is required for the major. (CSU) (UC) (Degree Credit)

## THEA 120CF Advanced Principles of Acting I (3)

## Prerequisite: THEA 120BF

Corequisite: Technical theatre class
Two hours lecture and four hours lab per week. Continuation of acting skills with emphasis on the applications of stylistic techniques for the classics. Individual exercises and scene work in Elizabethan, Restoration, Greek plays as well as exploration of French farce, comedy of manners, and Chekhov. (CSU) (UC) (Degree Credit)

## THEA 120DF Advanced Principles of Acting II (3)

## Prerequisite: THEA 120BF

Corequisite: Technical theatre class
Two hours lecture and four hours lab per week. In-depth study and practice of acting skills with increased emphasis on the application of the principles and theory of creative acting. Public performance of dramatic literature is required. (CSU) (UC) (Degree Credit)

## THEA 121 F Movement For Actors (3)

Two hours lecture plus three hours lab per week. This course explores movement as an actor's tool to aid in the acting process and to enhance the actor's physical ability to communicate on stage through the use of basic movement skills, focusing on physical awareness, movement improvisation, choreography, and stage combat and concentrating on the structure, organization and control of time, space, energy, and sound. Emphasis on the integration of verbal and non-verbal forms of communication focusing on movement and gesture as means to inform and illuminate text. The goal is to achieve the fullest range and clarity of physical and emotional expression of the body as it moves in relation to the surrounding space. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## THEA 122 F Improvisation for Television, Film and Theatre (2)

One hour lecture plus three hours lab per week. The principles and techniques of improvisational acting designed to increase the actor's creativity, problem solving, and performance skills. This course develops student awareness of the importance of the cooperative dynamics of theatre, television and film and the value of the individual actor's creative process. This course emphasizes individual performance, ensemble work and the development of the actor's physical, vocal, and emotional instrument as it relates to performance. (CSU) (Degree Credit)

## THEA 123 F Acting Techniques (3)

One hour lecture and three hours lab per week. This course explores acting for the modern stage through scene study and performance. It incorporates play analysis, character development, improvisation and staging. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

THEA 125 F Musical Theatre Performance Techniques (2)
One hour lecture plus three hours lab per week. This course explores the development of the fundamentals of acting, singing, and movement for musical theatre through exercises, auditions, solo performances and full staged scenes. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## THEA 127 F Oral Interpretation (3)

Three hours lecture per week. This course explores the fundamentals of the effective presentation of oral literature before an audience. It includes the study of voice and diction for the purpose of developing effective reading and correct habits of speech. It develops an appreciation of literature through oral expression and a historical overview of literary genres. Recommended for teaching majors both elementary and secondary. (CSU) (UC credit limitation - THEA 127 F and THEA 126 F (both semesters) combined - maximum credit 6 units.) (Degree Credit) AA GE, CSU GE

## THEA 129 F Beginning Voice for Actors (3)

Three hours lecture per week. This course will include academic study and practical application of the efficient and effective use of the speaking voice, particularly in meeting the special demands of acting for the stage. Along with a thorough introduction to the International Phonetic Alphabet, study in physical relaxation, breathing techniques, vocal expression, and articulation of general American speech will be covered with attention placed on the individual needs of each student. Stress will be placed on exercises designed to identify and correct breathing problems, diction problems, and to create conscious control of speech function. The theories and principles of the course will be applied in written assignments, oral performances before the class, and through vocal exercises done in class and at home. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## THEA 130 F Acting Workshop (3)

## Corequisite: THEA 120AF

Three hours lecture and six hours lab per week plus two hours per week arranged. A continuation of acting fundamentals with increased emphasis on the application of the principles and theories of creative acting. Additional performance and technical support work in workshop theatre is required. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## THEA 133 F Theatre Practicum (2)

Advisory: Admission by audition or interview only
Twelve hours lab per week for nine weeks. This course provides the study and lab exploration of all aspects of theatre production, culminating in a series of public performances. Enrollment is by audition or interview only. Actors audition for acting, singing or dancing roles. Students interested in technical work interview for back stage positions in stage management, set construction, scene painting, costumes, make-up, lighting, sound, and publicity. This course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## THEA 135 F Resident Theatre Company (3)

Advisory: Admission by audition or interview only
Two hours lecture plus three hours lab per week. This course involves the study and practical development of new and experimental plays. Students enrolling in this course will serve as playwrights, dramaturges, actors, directors and administrative production assistants. Enrollment is by audition or interview only. This course may be taken four times for credit. (CSU) (Degree Credit)

## THEA 136 F Touring Theatre Productions: Rehearsal and Performance (2)

Six hours lab per week. This course presents the rigorous requirements of a touring theatrical production. Students are given the opportunity to participate in one or more activities of the production company including acting, directing, stage managing, design, costuming, lighting, scenery, sound, properties and make up. The company will travel locally, nationally, and internationally depending on the year and circumstances. Course may be taken four times for credit. (CSU) (Degree Credit)

## THEA 137 F Summer Theatre Workshop (3)

Advisory: Admission by audition or interview only
Five hours lecture plus fifteen hours lab per week. Offered during the summer session, this course involves the study and lab exploration of all aspects of theatre production, culminating in a series of public performances. Enrollment is by audition or interview only. Actors audition for acting, singing, or dancing roles. Students interested in technical work interview for back stage positions in stage management, set construction, scene painting, costumes, make-up, lighting, sound and publicity. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## THEA 141 F Introduction to Technical Theatre (3)

Three hours lecture and three hours lab per week. This course introduces the student to the study and execution of technical theater principles. Using a lecture/lab format, and through project-based learning, students will learn theatrical design and technical practices that apply to scenery, lighting, sound, costumes, make-up, properties and scene painting. (CSU) (UC) (Degree Credit)

## THEA 142 F Theatre Crafts Lab (1-2)

One hour lecture and two hours lab per week arranged (one unit class). Two hours lecture and four hours lab per week arranged (two unit class). Design, construction, and operation in all areas of scenery, lighting, sound, costumes, and properties. Students are given practical experience in each area of production. Offers a theatre arts major the opportunity to develop confidence in his personal skills and technical capabilities. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## THEA 143 F Stagecraft (3)

Three hours lecture plus three hours lab per week. This course involves the study and execution of theatrical scenery with emphasis on construction, drafting, tools, materials and their relationship to the design and implementation process. Students enrolling in the course will be given hands-on practical experience in all the practical aspects of designing scenery for the theatre. (CSU) (UC) (Degree Credit)

## THEA 144 F Lighting (3)

Corequisite: THEA 149 F (. 5 units) (1½ hours per week)
Two hours lecture and three hours lab per week, plus one and one-half hours per week in THEA 149 F. This course involves the study and execution of stage lighting with emphasis on equipment, control, color and their relationship to design. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## THEA 145 F Theatrical Costuming (3)

Corequisite: THEA 149 F (. 5 units)
Two hours of lecture and two hours of lab per week. This course is an introduction to basic theatrical costuming. This course is designed to teach the student about costume design, history, and the use of sewing machines, pattern making and fabric selection. The course will culminate in a final project that reflects the student's creativity. May be taken twice for credit. (CSU) (UC) (Degree Credit)

## THEA 146 F Scene Painting (3)

Corequisite: THEA 149 F (. 5 units)
Consisting of two hours of lecture and three hours of lab per week, this course provides an introduction to, and continued development of, professional scenic artist techniques as they apply to the painting of scenery for the performing arts. This course will include use of brush, roller, spray gun, texturing, rock background, wood graining, wallpaper, masonry, scenic drops and other scene painting techniques. (CSU) (UC) (Degree Credit)

## THEA 147AF Stage Makeup (3)

Corequisite: THEA 149 F (. 5 units)
Two hours of lecture and three hours of lab per week. This course includes instruction and lab experience in all phases of theatrical makeup. Old age, character, fantasy, look-alike, stylized, historical period styles, facial hair, corrective as well as non-human styles of makeup and their color. (CSU) (UC) (Degree Credit)

## THEA 149 F Stage Crew Activity (.5-3)

Open Entry/Open Exit
One to six lab hours per week based on the number of units enrolled. Practical lab experience in the technical aspects of theatre resulting in public performances of theatrical productions. Students may choose from such diverse areas as scenery construction, scene painting, costume construction, lighting, audio, property construction, makeup, management, audience development and promotion. Enrolling in .5 units requires 27 hours per term, 1 unit requires 54 hours per term, 2 units require 108 hours per term, 3 units requires 162 hours per term. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## THEA 150 F Performance Lab (1)

Corequisite: MUS 288 F
Three hours of lab per week. This course features rehearsals, performances, and studio recording of standard and current commercial music for singers who dance. Accompanied by a small instrument group, the class includes choreography, staging and microphone techniques. Student compositions and arrangements are encouraged. May be taken four times for credit. (CSU) (Degree Credit)

## THEA 151 F Properties: Design and Construction (3)

Three hours lecture and two hours lab per week. This course introduces the student to the processes and skill-sets that are used on a daily basis in the world of stage properties. This course involves the study and execution of property construction, research methods, upholstery and puppetry, as well as the creation of stage food, animals and stage weaponry. This course is also intended to orient students to the aspects of properties as they relate to a Properties Master and a Properties Artisan. (CSU) (Degree Credit) AA GE

## THEA 160 F Introduction to Sound Technology (2)

Two hours of lecture per week. This course introduces the student to Sound Technology for the theatre with emphasis placed on the physical properties of sound and the audio equipment used to bring sound to the stage and concert hall. (CSU) (Degree Credit) AA GE

## THEA 161 F Sound Reinforcement Techniques (2)

Two hours lecture per week. This course is designed to give the student understanding and working knowledge of both the science of sound reinforcement and the practical application of audio equipment for theatrical events, concerts and other public events. (CSU) (Degree Credit) AA GE

## THEA 162 F Sound Design for the Theater (3)

Two hours lecture and three hours lab per week. This course develops the student's understanding and working knowledge of sound design principles and practices for the theatre. Project based learning provides the student with an introduction to audio equipment and an understanding of the craft and process of sound design. (CSU) (Degree Credit) AA GE

## THEA 196HF Honors Creative Arts - Theater (3)

Three hours lecture per week plus one hour arranged in attendance at museums, concerts, and theatrical performances. This course explores the nature of creativity through exposure to the performing arts, literature, and the fine arts. Honors students will make independent investigations into the various art forms and apply aesthetic theory to discover interrelationships between genres. Students who receive credit in this course may not receive credit in ART 196HF or MUS 196HF. (CSU) (UC Credit Limitation) (Degree Credit) AA GE, CSU GE, IGETC

## THEA 222 F Acting for the Camera (3)

## Prerequisite: THEA 120AF

Two hours lecture and four hours lab per week. Study and exercise in the special techniques of acting for the motion picture and television camera. Emphasis will be placed on gaining an understanding of the various camera angles, shots, positions, and actor behavior: philosophies and approaches unique to acting before a camera. Practical work with the camera required. Course may be taken twice for credit. (CSU) (UC) (Degree Credit)

## THEA 225 F Stage Directing (3)

Prerequisite: THEA 120AF
Corequisite: THEA 141 F or THEA 142 F or THEA 143 F or THEA 144 F or THEA 145 F or THEA 146 F or THEA 147 F or THEA 255 F or THEA 265 F or THEA 900 F
Two hours lecture and three hours lab per week. This course is a study of the background and techniques of the director in theatre with an emphasis on practical experience in directing through class projects and public performance. (CSU) (UC) (Degree Credit)

## THEA 235 F Experimental Theatre (2)

Advisory: Admission by audition or interview only
Six hours lab per week. This course involves the study and lab exploration of student directed and produced productions. Enrollment is by audition or interview only. Directors are interviewed and accepted for specific projects, actors audition for acting, singing, or dancing roles and students interested in technical and design work interview for production positions. Course may be taken four times for credit. (CSU) (UC) (Degree Credit)

## THEA 255 F Theatrical Costume Construction (2)

## Prerequisite: THEA 145 F

Two hours lecture and two hours lab per week. This course offers continued research and application of costume construction techniques and design elements unique to historical periods and their application to present day costume construction and design. May be taken four times for credit. (CSU) (Degree Credit)

THEA 265 F Theatre Management (2)
Two hours lecture per week. This course is designed to teach the business of "show business" in educational, community, and professional theatre. Emphasis is placed on the contributions of the producer, production manager, and artistic director and the impact they have on theatre operations. This course is required of all students who are interested in management positions for the Theatre Arts Department productions. (CSU) (Degree Credit)

## THEA 290 F Theatre Arts Seminar (1-3)

Lecture/lab hours may vary with credit given. This course allows for flexibility in designing special activities for beginning students and special topic classes for advanced students. Course may be taken four times for credit. (CSU) (Degree Credit)

## THEA 299 F Theatre Arts Independent Study (.5-2)

Prerequisite: All classes listed in specific performance area
One hour conference per week. Designed for capable students who wish to increase their knowledge and experience in theatre. Unit credit may range from $1 / 2$ to 2 units in any given semester. Consult class schedule to verify credit for that particular term. Course may be taken four times for credit. (CSU) (UC review required) (Degree Credit)

## THEA 900 F Stage Management (2)

Two hours lecture per week. This course involves the study and the practical application of the practices of the stage manager as they pertain to the theatrical production process. Emphasis is placed on the duties, responsibilities and procedures from pre-production to postproduction. The course is required of all students who are interested in stage management positions for the Theatre Arts Department productions. (Degree Credit)

## Vietnamese (VIET)

## Humanities Division

Office: Bldg 500
714.992.7036

Dean: Dan Willoughby
Website: humanities.fullcoll.edu

## Vietnamese Courses

## VIET 050AF Vietnamese for Public Personnel (3)

Letter Grade or Pass/No Pass option
Three hours lecture per week. An introductory oral course open to students with no previous exposure to Vietnamese who want a speaking knowledge for vocational needs in the fields of medicine, social welfare, public safety, law enforcement, business, etc. NOTE: This course is currently not offered at Fullerton College. AA GE

## VIET 050BF Vietnamese for Public Personnel (3)

Letter Grade or Pass/No Pass option
Prerequisite: VIET 050AF or previous experience with Vietnamese Three hours lecture per week. This course is a continuation of VIET 050AF. NOTE: This course is currently not offered at Fullerton College. AA GE

# Welding (WELD) 

Technology and Engineering Division<br>Office: Bldg 700, Room 709<br>714.992.7594<br>Dean: Scott McKenzie<br>Website: techneng.fullcoll.edu

## Welding Technology Certificate

## Welding Courses

## WELD 091AF Industrial Welding Fundamentals (5)

Three hours lecture and six hours lab per week. This course is designed to give students, with interest in welding as an occupation, a broad outlook on a high technology field that interfaces with areas of manufacturing, construction and repair. The course will include historical development of welding, the welding industry and its future, applied terms and definitions, methods of application, safety in the welding environment, welding positions, and joint types. Students will become occupationally proficient using Oxyfuel Welding (OFW), Brazing (TB), Oxyfuel Cutting (OFC), Air Carbon Arc Cutting (CAC-A), and Plasma Cutting (PAC). (Degree Credit)

## WELD 091 BF Semi-Automatic Welding Applications (5)

Prerequisite: WELD 091AF or WELD 121AF and WELD 121BF
Three hours lecture and six hours lab per week. This course will cover, with in-depth study, the make-up of constant voltage power sources and semi-automatic wire feed systems. Various methods of metal transfer will be covered, such as spray, globular, short-circuiting, and pulsed spray. Applications will be applied to ferrous and non-ferrous metals of various thicknesses in all axes. Students will become occupationally proficient using Gas Metal Arc Welding (GMAW) on limited and unlimited thicknesses in all axes on plate, Flux Cored Arc Welding (FCAW) on intermediate and unlimited thicknesses in all axes on plate. (Degree Credit)

## WELD 091CF Manual Arc Welding Fundamentals (5)

Prerequisite: WELD 091BF
Three hours lecture and six hours lab per week. The areas covered in this course are the make-up and use of constant current power supplies as found in Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW) with alternating current, direct current and pulsed current output variations. Elements of welding design, cost estimations, process selection and related welding symbols also will be covered. Students will gain entry level skills on Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW) using ferrous and nonferrous metals. (Degree Credit)

## WELD 091DF Structural Welding Certification (5)

 Prerequisite: WELD 091CFThree hours lecture and six hours lab per week. Topics covered include origination and applications of welding codes, welding procedure qualification, welder qualification tests, weldment evaluation and quality control, visual inspection and preparation for Los Angeles City welding examination. Students will take written and lab tests to qualify as licensed certified welders in compliance with the American Welding Society (AWS) and the Los Angeles Building Code, using Shielded Metal Arc Welding (SMAW) and Flux Core Arc Welding (FCAW) on light gage and heavy gage structural steel. (Degree Credit)

## WELD 095 F Welding Skills Lab (.5-2)

Open Entry/Open Exit
Corequisite: WELD 121AF, WELD 121BF, WELD 091AF, WELD 091BF, WELD 091CF, WELD 091DF, or any other Fullerton College welding class
This course offers students the opportunity to further develop their welding skills. One-half unit of credit will be given for each twenty-four hours of class participation. Open entry, variable units. Course may be taken four times for credit. (Degree Credit)

## WELD 096 F Welding Inspection Technology (5)

Five hours lecture per week. This class will aid in preparation for the American Welding Society's AWS Certified Welding Inspector's CWI exam. Fundamentals of visual welding inspection per nationallyrecognized code applications will be covered. Preparation and qualification of welding procedures and welder qualifications will be discussed. Building code compliance for welding applications will be assessed. Through the usage of weld gauge measurement tools and destructive and nondestructive testing equipment, the student will gain hands-on experience in welding inspection standards. This class is strongly recommended for those entering the fields of quality assurance, inspection, supervision and engineering of welded products. (Degree Credit)

WELD 098 F Welding Fabrication Technology (2)
Prerequisite: WELD 091AF
One hour lecture and three hours lab per week. This course will provide the student with a general understanding of the fundamental methods of welding fabrication used in industry. Fabrication case studies and philosophies will be examined and the net outcome discussed. Students will become familiar with standard mill shapes and materials, jigs and fixtures, methods of layout and fitting, preparation and qualification of welding procedures, cost analysis, and cutting and fastening techniques. This class is strongly recommended for those entering the fields of metal fabrication, quality assurance, inspection, supervision, and engineering of welded products. (Degree Credit)

WELD 121 AF Introduction to Welding (2)
One hour lecture and three hours lab per week. The course emphasizes welding fundamentals and safety used in modern industry. Students in non-welding vocational and transfer areas will be able to gain welding skills needed as a support craft. Process identification, terms and definitions, safety guidelines, and practical applications are included. Students will gain entry level skills with Oxyacetylene Welding (OAW), Shielded Metal Arc Welding (SMAW), and Oxyacetylene Cutting (OFC). (CSU) (Degree Credit)

## WELD 121 BF Fundamentals of Inert Gas Welding (2)

Prerequisite: WELD 121AF
One hour lecture and three hours lab per week. This course enables students, who expect welding to be an integral part of their vocation, to master necessary manipulative skills in order to obtain job proficiency. Introduction to Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW) and Plasma Arc Cutting (PAC) are covered. Students will gain entry level skills on ferrous and non-ferrous metals using gas metal arc and gas tungsten arc welding. (Degree Credit)

## Wellness (WELL)

## Physical Education Division

Office: Bldg 2200
714.992.7045

Dean: Peter Snyder
Website: pe.fullcoll.edu

## Wellness Courses

## WELL 020 F Fitness Assessment (.5)

Thirty minutes lecture and one hour lab per week. This course is designed to assess the physical fitness level of students. Measurements of body composition, cardiac profile, blood pressure, muscular endurance, muscular strength, flexibility and cardiorespiratory endurance will be included in the class. After testing, based on test results, students will be counseled and exercise recommendations will be given. A lab fee will be charged. (Degree Credit)

## WELL 040 F Training Principles for Fitness Assessment (1)

One hour lecture and one hour lab per week. This course is designed to train students to perform and interpret fitness tests based on the major components of physical fitness. (Degree Credit)

## WELL 110 F Pathology: The Massage Connection (3)

Three hours lecture per week. This course is designed to meet the specific needs of massage therapy students and professionals interested in pathology. This course includes topics such as pain, inflammation and healing, and pathology associated with each of the systems. This class is part of the Physical Education's Therapeutic and Sports Massage: Massage Therapist Program. (CSU) (Degree Credit)

## WELL 119 F Applied Biomechanics (2)

Two hours lecture per week. This interactive and informative course takes an in-depth look at the kinesiology and functional actions of the torso, legs, and upper body musculature as it applies to exercise. Students will learn the proper postural stabilization techniques, selective recruitment patterns and progressive resistance that influences overall body alignment along with practical implications of bones, joints, muscles, nerves, and muscle actions in developing structurally sound exercise programs. (CSU) (Degree Credit)

## WELL 200 F Applied Exercise Physiology (2)

Two hours lecture per week. This course examines how the body functions under conditions of exercise stress. Students will study the practical implications of muscle function, cardiorespiratory function, training techniques, and the environment on exercise. (CSU) (UC) (Degree Credit)

## WELL 220 F Exercise and Aging (2)

Two hours lecture per week. Three field trips are required. This course examines the scientific evidence concerning the relationship between physical activity level and physical, mental, and social-psychological well-being during aging, changes related to inactive lifestyles (functional mobility and health declines), and the positive effects on an active lifestyle on successful aging and prevention of disease and disability. (CSU) (Degree Credit)

WELL 221 F Personal Training Internship (2)
Prerequisite: Completion of ANAT 231 F; NUTR 210 F; PE 154 F, PE 235 F; WELL 040 F, WELL 119 F, WELL 200 F. Plus two units of restricted electives from: PE 147 F, PE 152 F, PE 159 F, PE 199 F, PE 243 F, PE 266 F; WELL 242 F
Two hours lecture, two hours lab per week. This course is designed to provide our Personal Training certificate students an opportunity to train clients (current FC students) under the supervision of our Physical Education faculty. The trainer gains practical hands-on experience working with clients. Course may be taken twice for credit. (CSU) (PE 199 F UC review required.) (Degree Credit)

## WELL 230 F The Body-Mind Connection (3)

Three hours lecture per week. Body-mind health refers to the integration of the mind (our thoughts, attitudes and emotions) and the body, and to their impact on our overall health and well being. Body-mind health encompasses all aspects of our lives; physical, mental, emotional, and spiritual. (CSU) (Degree Credit) CSU GE

## WELL 232 F Introduction to Massage (4)

Four hours lecture per week. This course is the foundation for the entire Therapeutic and Sports Massage Program. It gives the students theoretical, practical and professional experience in massage therapy. The student will master a solid core of skills, body mechanics, client assessment and centering skills. The students will learn to give and receive a full body relaxation massage. (CSU) (Degree Credit)

## WELL 233 F Intermediate Massage (3)

Advisory: WELL 238 F
Three hours lecture per week. This course focuses on massage applications with therapeutic and rehabilitative techniques. Students will learn therapeutic techniques that can maximize the efficiency of their work. Applications introduced include deep tissue, postural realignment, craniosacral motion and aromatherapy. Special attention is given to palpatory skills. (CSU) (Degree Credit)

## WELL 234 F Advanced Massage (3)

## Advisory: WELL 238 F

Three hours lecture per week. This hands-on course explores a variety of techniques appropriate to the spa setting. This course includes Advanced Massage is a course designed to enhance the skills of massage students who have already completed the basic and intermediate massage courses. Methods and procedures of advanced soft tissue techniques and related topics; an integration of techniques practiced in intermediate massage. (CSU) (Degree Credit)

## WELL 236 F Sports Massage (3)

Three hours lecture per week. This course will offer the basic principles of sports massage. The class will give the student working knowledge of athletes' needs and emphasizes preventive and post-event massage. (CSU) (Degree Credit)

## WELL 238 F Massage and Bodywork Lab (2)

Advisory: WELL 232 F and WELL 236 F
One hour lecture and three hours lab per week. This course offers students the practical experience of giving a professional massage. This lab experience develops student confidence and professional massage skills while working with the public under supervision of instructor. Course may be taken three times for credit. (CSU) (Degree Credit)

WELL 239 F Internship Massage and Bodywork (1-4)
Prerequisite: WELL 233 F or WELL 234 F
One hour lecture and three hours lab per week. Students apply their knowledge and skills working directly with the public in supervised settings. Students independently perform field work under supervision in various settings (i.e., community agencies, with athletic teams, spas, chiropractors or healthcare facilities). Students are required to complete four units for the Therapeutic and Sports Massage Certificate. Course may be taken four times for a maximum of eight units. (CSU) (Degree Credit)

## WELL 242 F Stress Management and Relaxation Training (1.5)

One and one-half hour lecture per week. The physiology of the stress response as well as specific physical changes, which indicate the onset of stress, will be covered. There will be discussion of the nature of various stressors, stress induced emotions as well as the role of thought process in the development and prevention of stress. Emphasis will be placed on the difference between "disputing" and "distracting" in managing stresses including the techniques used for each. Emphasis will also be placed on the analysis of stressful events and the application of the appropriate techniques. The place of diet and exercise will be covered as well as specific problem areas related to fitness such as back and neck care. Activity periods will cover flexibility and relaxation training, with instruction in the various relaxation techniques such as breathing, progressive relaxation, deep relaxation, Autogenesis and visualization. (CSU) (Degree Credit) CSU GE

## WELL 265 F Kinesiology (3)



Three hours lecture per week. This course covers the musculoskeletal system and its function in human movement as well as movement in sports skills and activities of daily living and the muscles involved. This class will approach the human body primarily from a functional perspective. There will be emphasis on the relationship between the muscles and the bone as they relate to human movement. (CSU) (Degree Credit)

## Women's Studies (WMNS)

Social Sciences Division<br>Office: Bldg 1400, Room 1415<br>714.992.7047<br>Dean: Dan Tesar<br>Website: http://socsci.fullcoll.edu/

## Women's Studies Courses

WMNS 100 F Introduction to Women's Studies (3)
Three hours lecture per week. An interdisciplinary introduction to feminist topics. Designed to provide a foundation for Women's Studies with an examination of sex role socialization, feminist theory, and feminist themes in literature, philosophy, psychology, the arts, economics and politics. (CSU) (UC) AA GE, CSU GE, IGETC

# Wood Technology (WOOD) 

Technology and Engineering Division
Office: Bldg 700, Room 700
714.992.7576

Dean: Scott McKenzie
Website: techneng.fullcoll.edu

Cabinetmaking and Millwork Technology Certificate Wood Technology: Cabinetmaking Specialist Certificate Wood Technology: Furniture Making Specialist Certificate Wood Technology: Woodcarving Specialist Certificate<br>\section*{Wood Technology Courses}

## WOOD 012 F Cabinetmaking/Millwork (4)

Prerequisite: WOOD 110 F or one year woodworking experience Two hours lecture and six hours shop practice per week. The study of operations commonly performed in cabinet shops. Instruction in the safe use and proper care of woodworking machinery. This course will include design layout, blueprints, mill lists, construction estimating, bid preparation, and material analysis. Students will be involved in a project consisting of carcass construction techniques, face frames, drawer frame partitions, and the construction of doors and drawers. Various aspects of finish carpentry, including interior millwork, installation, hardware, and finishing techniques used in the mill cabinet trade will be studied. (Degree Credit)

## WOOD 013 F Introduction to 32mm Cabinetmaking (4)

Advisory: WOOD 110 F or equivalent introductory Wood Technology course or two years of woodworking experience
Two hours lecture and six hours lab per week. This is an introduction to the European style of cabinetmaking based on a system of holes drilled at 32 mm increments. Design considerations and materials selection, including hardware, will be covered, along with the proper layout, sizing, and drilling of cabinet parts. Special emphasis is given to the safe and correct use of equipment that is specific for this type of cabinetmaking. (Degree Credit)

WOOD 014 F Cabinetmaking/Millwork (House Project) (4)
Prerequisite: WOOD 110 F or one year woodworking experience Two hours lecture and six hours shop practice per week. This course provides the students with on-site cabinetmaking experience at the Construction Technology student-built house. Students will be involved in a three-phase cabinetmaking project. Phase I: Design, layout, cost estimating, and material analysis. Phase II: Students will construct kitchen cabinets, bathroom vanities, base moldings, and mill all interior trim. Phase III: Surface preparation staining, finishing, hardware, and installation of cabinets, millwork, and interior finish carpentry. (Degree Credit)

## WOOD 015 F 32mm Cabinetmaking/ Millwork-House Project (4)

Advisory: WOOD 110 F or equivalent introductory Wood Technology course or two years of woodworking experience
Two hours lecture and six hours lab per week. This course provides the students with on-site 32 mm cabinetmaking experience at the Construction Technology student-built house.\& installation experience. Students will be involved in a three-phase cabinetmaking project. Phase I: Design, layout, cost estimating, and material analysis. Phase II: Students will construct 32 mm kitchen cabinets, bathroom vanities, base moldings, and mill all interior trim. Phase III: Surface preparation, staining, finishing, hardware, and installation of 32 mm cabinets, millwork, and interior finish carpentry. (Degree Credit)

## WOOD 016 F Machine Woodworking/Furniture (4)

Prerequisite: WOOD 110 F or one year woodworking experience
Two hours lecture and six hours shop practice per week. A three-phase study of advanced wood technology, wood machinery, and fine furniture construction, emphasizing craftsmanship and professional preparation. Phase I: Wood technology, identification, and terminology; lumber grades, principles of design, working drawings, bill of materials, use and care of hand tools, and joinery exercises. Phase II: Operation and maintenance of woodworking power machines, safety precautions, design and construction of jigs and fixtures, machine joinery, and millwork as related to furniture production. Phase III: Finish carpentry, door and drawer construction, molding, trim, frame, and panels. Properties of adhesives, stains, sealers, and finishes. Study of trade skills and career opportunities in industrial woodworking. (Degree Credit)

## WOOD 017 F Table Construction (4)

Advisory: WOOD 110 F or equivalent introductory Wood Technology course or two years of woodworking experience
Two hours lecture and six hours lab per week. This is an intermediate course that covers the history, design, and construction of tables for office and residential and residential applications. Special emphasis is given to ergonomic considerations, proper choice of materials, and correct machining operations to successfully complete a project. Each student builds a table of the student's own design. Course may be taken twice for credit. (Degree Credit)

## WOOD 018 F Advanced Machine Woodworking/ Furniture (4)

## Prerequisite: WOOD 016 F

Two hours lecture and six hours shop practice per week. Emphasis on more advanced furniture design and joinery, employing more sophisticated and advanced hand and machine tool operation. (Degree Credit)

## WOOD 019 F Chair Construction (4)

Advisory: WOOD 110 F or equivalent introductory Wood Technology course or two years of woodworking experience
Two hours lecture and six hours lab per week. This is an intermediate course that covers the history, design, and construction of chairs for office and residential applications. Special emphasis is given to ergonomic considerations, proper choice of materials, and correct machining operations to successfully complete a project. Each student builds a chair of the student's own design. (Degree Credit)

## WOOD 021 F Tool and Jig Production (2)

Prerequisite: WOOD 110 F
Corequisite: Enrollment in any woodworking class
One hour lecture and three hours of shop practice per week. This course offers the study of design considerations and materials selection for constructing woodshop tools and jigs. As one of the principle instructional objectives, students will build a series of tools and jigs. Emphasis is placed on tools and jigs for the table saw and hand-held router. (Degree Credit)

## WOOD 025 F Cabinet Vision/Planit Solutions (2)

One and one-half hours lecture and two and one-half hours lab per week. This course will include the use of the Cabinet Vision software program for creating room layouts and designing cabinets. Students will work with 2D and 3D CAD to produce bids, estimates and presentations. (Degree Credit)

## WOOD 026 F Computer Applications for

 Cabinetmaking (2)One and one-half hours lecture and two and one-half hours lab per week. This is an intermediate course to CAD software used in the cabinetmaking industry. Students will learn the terminology used in traditional cabinetry and the corresponding terms that apply in using the software. Students will learn how to use the software to input the field measurements and other critical measurements to create custom cabinetry for kitchens, bathrooms, and other residential rooms. In addition, students will create cutting lists of materials, bid estimates for the project, and CAD drawings and renderings that might be presented to a customer. Students will work on individual PC computers in a networked lab setting. (Degree Credit)

## WOOD 031 F Woodworking Skills LAB (.5-8)

Open Entry/Open Exit
Corequisite: Any Fullerton College credit woodworking class
This course offers students the opportunity to further develop their skills at hand and machine tool operations, and to devote more time to project work. One half unit of credit will be given for each twenty-four hours of lab participation.

## WOOD 032 F Advanced Skills Lab (.5-4)

## Open Entry/Open Exit

## Corequisite: Enrollment in any Wood Technology course

This course provides students the opportunity to develop advanced skills in hand and machine tool use; machinery setup and safety; project planning, construction, and assembly; and the application of appropriate finishes to a project. One-half unit of credit will be given for each 27 hours of lab participation. This course may be taken a total of four times.

## WOOD 041 F Introduction to Woodcarving (2)

One hour lecture and three hours lab per week. This is an introductory course designed to develop the basic skills of woodcarving. Topics covered include the selection of appropriate carving woods, basic carving knife skills, basic project layout, and simple project finishing applications. Course may be taken twice for credit. Lab Fee: $\$ 15$ (Degree Credit)

## WOOD 042 F Intermediate Woodcarving (2)

One hour lecture and three hours lab per week. This is an intermediate course in woodcarving, designed for the student who has some experience with woodcarving and wishes to build on those skills and knowledge. Intermediate carving tools and techniques will be covered, including face carving. Students will complete a series of intermediate woodcarving projects for the semester, using materials provided. Lab Fee: $\$ 15$ (Degree Credit)

## WOOD 043 F Advanced Woodcarving (2)

One hour lecture and three hours lab per week. This is an advanced course in woodcarving, designed for the student with strong carving skills and experience. The student is expected to have mastery of low and shallow relief carving techniques, and the tools necessary to achieve those techniques. This course will focus on more advanced carving techniques necessary to achieve full-figure and mid-relief carving, including projects with multiple faces and/or figures. Students will complete a series of advanced woodcarving projects for the semester, using materials provided. Course may be taken twice for credit. Lab Fee: $\$ 15$ (Degree Credit)

## WOOD 044 F In-the-Round Woodcarving (2)

One hour lecture and three hours lab per week. This is an advanced course in woodcarving, designed for the student who has mastered the tools and techniques for relief carving and who wishes to pursue in-theround carving. This course will focus on the advanced tools and techniques necessary for 3-D carving, such as full-figure, decoy and furniture carving. Students will complete a series of advanced carving projects for the semester, using materials provided by the student. Course may be taken twice for credit. (Degree Credit)

## WOOD 110 F Fundamentals of Woodwork (4)

Two hours lecture and six hours shop practice per week. Practice in bench woodwork and the basic machine operation of the table saw, jointer, surfacer, sander, drill press, and boring machine. Includes the care and the use of hand tools, typical joint construction, common furniture hardware, glues and gluing, and a study of common furniture wood. (CSU) (Degree Credit) AA GE

## Work Experience (WKEX)

Business and CIS Division
Office: Bldg 300
714.992.7032

Dean: Ann Hovey
Website: http://bizdiv.fullcoll.edu

## WKEX 091 F Work Experience/Vocational (1-4)

One hour lecture and five to twenty (or more) hours of employment per week required. One unit of credit for each five hours worked per week to a maximum of four units each semester. Course is designed to provide instruction and general advisement related to actual work experience. Employment and major must be related. Students must carry a minimum of seven units, which may include Work Experience, and be appropriately declared in a major. Students may enroll up to a maximum of four semesters, earning up to a maximum of sixteen units over that time. (Degree Credit)

## WKEX 092 F Work Experience/General (1-3)

One hour lecture and five to fifteen (or more) hours of employment per week required. One unit of credit for each five hours worked per week to a maximum of three units each semester. Course is designed to provide instruction and general advisement related to actual work experience. For the employed student who has either not yet declared a major or whose employment and major are not related. Students must carry a minimum of seven units, which may include Work Experience. Students may enroll up to a maximum of two semesters, earning up to a maximum of six units over that time. (Degree Credit)



## Faculty and Administration

ABUTIN, ALBERT - Dean, Admissions \& Records, Interim
A.A., A.S., Fullerton College
B.A., California State University, Fullerton
M.S., University of La Verne

ALLEN, MAALA K. - Natural Sciences
Biology
B.Sc., University of St. Andrews, United Kingdom
M.S., Yale University

ALMODOVAR-SOLE, LAURA C. - Counseling/Student Development Counseling
B.A., University of Puerto Rico
M.A., California State University, Dominguez Hills

ALVARADO, CECILIA - Manager, EOPS/Student Services
A.A., Rio Hondo College
B.A., California State University, Fullerton
M.S., Pepperdine University

ANDERSON, JANNA K. - Humanities
English
B.A., Pepperdine University
M.A., California State University, Fullerton

ANDRUS, ANGIE - Social Sciences
Sociology
A.A., Fullerton College
B.A., M.A., California State University, Fullerton

ANSARI, MOHD - Natural Sciences
Chemistry
Ph.D., Indian Institute of Technology, India
ARCEO, ROSA - Humanities
Foreign Language
M.A., University of California, Los Angeles

ARCHER-HETLAND, BERNADETTE - Counseling \& Student Dev Counseling
A.A., Mt. San Antonio College
B.A., M.S., California State University, Fullerton

ARMANI, BEHNOOSH - Counseling \& Student Development Counseling
A.A., Whatcom Community College
B.S., National University
M.S., California State University, Los Angeles

ARNDT, NADINE E. - Humanities
English
B.A., M.A., California State University, Fullerton

ASHENMILLER, JOSHUA - Social Sciences History
A.B., Princeton University
M.A., PhD., University of California Santa Barbara

ASSEF, CELIA - Technology and Engineering
Cosmetology
A.S., Riverside Community College

BABAD, BRUCE - Fine Arts
Music
M.M., California State University, Long Beach

BAKER, MICHAEL J. - Natural Sciences
Anatomy and Physiology
B.S., University of California, Irvine
M.S., California State University, Long Beach

BALMA, JODI JENKIN — Social Sciences Political Science
B.A., M.P.A., California State University, Fullerton

BANDA, SERGIO A. - Social Sciences Sociology
M.A., California State University, Fullerton

BANGERTER, RENEE - Humanities
English
B.A., M.A., Brigham Young University

BARABAS, LILIANA - Natural Sciences
Physics and Astronomy
B.S., University of Bucharest, Romania
M.S., California State University, Long Beach

BASSI, LISA — Physical Education
B.S., California State Polytechnic University, Pomona
M.A., California State University, Dominguez Hills

BATTOCLETTE-YOUNG, RENEE - Technology \& Engineering Fashion
B.F.A., Virginia Commonwealth University
M.A., California State University, Los Angeles

BEILKE, INES T. - Counseling/Student Development Counseling
A.A., American Junior College
B.A., California State University, Los Angeles
M.S., California State University, Sacramento

BENNETT, ERICA H. - Library/Learning Resources Library Technology
A.A., Cypress College
A.A., Santa Ana College
B.A., California State University, Fullerton
M.L.I.S., University of California, Los Angeles

BENSON, AARON - Fine Arts
Theatre Arts
B.A., Humboldt State University
M.F.A., University of Illinois

BERGER, MARGARET S. - Cinema-Radio-TV
B.A., University of Hawaii
M.B.A., California State Polytechnic University, Pomona

BERRYHILL, ROBERT E. - Technology and Engineering
Automotive Technology
A.A., Pasadena City College
B.V.E., California State University, Long Beach
M.A.E., Pepperdine University

BEVEC, GINA, M. - Physical Education
A.A., Fullerton College
B.S., California State University, Fullerton
M.Ed., Azusa Pacific University

BIANCHINO, ANNIE - Natural Sciences
Chemistry
B.S., Brooklyn College
M.S., University of California, San Diego

Ph.D., University of California, Los Angeles

BJORKLUND, NANCY B. - Social Sciences History
B.A., M.A., University of California, Los Angeles

Ph.D., University of California, Irvine
BLANCHE, GISELLE - Social Sciences
Sociology
B.S., Louisiana State University, Baton Rouge
M.A., California State University, Fullerton

BLASCHKE, LILLIAN A. - Natural Sciences
Anatomy/Physiology/Microbiology
B.S., Queens College
M.A., Columbia University

Ph.D., University of California, Irvine
BOLL, JACQUELINE - Dean, Library/Learning Resources Library Technology
A.A., Long Beach City College
B.A., University of California, Los Angeles
M.S.L.S., University of Southern California

BRANNOCK, JO ANN C. - Social Science
Psychology
A.A., Fullerton College
B.A., M.A., California State University, Fullerton

Ph.D., The Claremont Graduate University; State of California
Clinical License
BROWN, DAVID - Library/Learning Resources
Library Technology
B.S. Butler University
M.L.S. University of Missouri, Columbia

BUCKLEY, LAWRENCE - Vice President of Instruction
B.A., M.A., Ph.D., University of Hawaii

BUI, MINH - Mathematics and Computer Science Mathematics
B. A., University of California, Los Angeles
M. A., University of California, Irvine

BURGER, MARKUS - Fine Arts
Music
B.A., Conservatory Maastricht, Netherlands
M.A., Folkwangschule Essen, Germany

BYDE, ROBERT W. - Social Sciences
Psychology
B.S., Ph.D., University of California, Irvine

BYRNES, TIMOTHY - Physical Education
M.Ed., Azusa Pacific University

CAIN, JOYCE - Humanities
English as a Second Language
B.A., University of California, Berkeley
M.A., University of California, Los Angeles

CALLAHAN, LINA - Humanities
Foreign Language
B.S., M.A., California State University, Long Beach

CAMPBELL, LISA — Dean, Counseling
Counseling
B.S., M.S., California State University, Fullerton M.P.A., California State University, Long Beach

CANTRELL, CANDICE L. - Business and CIS
Computer Information Systems
B.S., M.A., University of California, Los Angeles

CARRITHERS, JOE - Humanities
English
B.A., B.A., M.A., Mississippi State University
M.A., Ph.D., University of Southern California

CARROLL, CONNIE J. - Physical Education A.A., Fullerton College
B.A., California State University, San Diego
M.S., California State University, Fullerton
M.A., University of Santa Monica

CARTER, DAN - Technology \& Engineering A.S., Fullerton College

CASILLAS, LUPE L. - Counseling and Student Development Counseling
B.A., M.S., California State University, Los Angeles

CAUDILL, ARNOLD D. - Humanities
Foreign Language
B.A., University of California, Berkeley
M.A., University of New Mexico

CEBRIAN, GAYLE - Technology and Engineering Cosmetology B.A., Union Institute and University

CHADWICK, JANICE E. - Natural Sciences Chemistry B.S., University of Utah M.S., Ph.D., University of California, Riverside

CHAMBERLIN, W. SEAN - Natural Sciences Oceanography
B.A., University of Washington

Ph.D., University of Southern California
CHAN, THEODORE C. - Natural Sciences Chemistry
B.S., M.S., California State University, Long Beach

CHIANG-SCHULTHEISS, DARREN - Humanities English
B.A., California State University, Fullerton
M.A., University of Nebraska, Lincoln

CHIAROMONTE, THOMAS - Social Sciences Child Development B.A., California State University, Long Beach M.S., Iowa State University

Ph.D., The Claremont Graduate University
CHO, LEONARD Y. - Mathematics and Computer Science Mathematics
B.S., University of California, Los Angeles
M.S., University of Southern California
M.A., California State University, Fullerton

CIMA, ALEX — Fine Arts Music
B.A., California State University, Northridge
M.A., California State University, Fullerton

CLAASSEN, MAREIKE - Mathematics and Computer Science/Technology and Engineering - Engineering Ph.D., University of California, Berkeley
CLAHANE, DANA D. - Mathematics and Computer Science Mathematics
B.S., Biola University
M.A., California State University, Long Beach

Ph.D., University of California, Irvine

COHN, IRENE H. - Counseling/Student Development Counseling
B.A., M.A., University of Northern Colorado
M.S., California State University, Fullerton

COLETTA, MICHELLE - Fine Arts
Music
B.M., M.M., University of Hartford
D.M.A., University of Minnesota

COLLINS, KENNETH P. — Natural Sciences Biology
B.S., M.S., Brigham Young University Ph.D., North Carolina State University
COMBS, JENNIFER - Counseling
B.A., University of Michigan
M.A., Ph.D., University of California, Santa Barbara

CONFORTI, DANIEL A. - Social Sciences
Political Science
B.A., M.A., California State University, Fullerton
J.D., Western State University College of Law

CONRAD, ROBIN - Physical Education
Dance
B.A., University of California, Irvine
M.F.A., California Institute of the Arts

COOPER, DAVID - Business and CIS
Business Management
B.A., Loyola Marymount University
J.D., University of San Diego School of Law

CORDELL, BRUCE M. - Dean, Natural Sciences
B.S., Michigan State University
M.S., University of California, Los Angeles

Ph.D., University of Arizona
CORSI, SANDRO - Fine Arts
Computer Graphics
M.F.A., School of the Art Institute of Chicago

COSTELLO, JEANNE — Humanities
English
B.A., University of California, Los Angeles
M.A., University of California, Santa Barbara

COURON, BRIAN L. - Counseling/Student Development Counseling
A.A., Santa Ana College
B.A., M.A., California State University, Fullerton

Ph.D., United States International University, San Diego
CRAIG, DALE - Business and CIS
Computer Information Systems
B.A., M.A., California State University, Long Beach

CREDIDIO, STEVEN - Counseling/Student Development Counseling
B.S., Fordham University
M.A., Ph.D., University of Detroit

CROOKS, BRIAN - Physical Education
B.S., California State University, Fullerton M.A., National University

CROWELL, BENJAMIN — Natural Sciences Physics
B.A., University of California, Berkeley

Ph.D., Yale University

DADSON, GUY W. - Natural Sciences
Chemistry
B.S., University of Utah
M.S., California State University, Fullerton

DAHI, NAJI J. — Social Sciences
Political Science
B.A., American University of Beirut
M.A., Ph.D., University of Southern California

DANIEL, WILLIAM - Technology and Engineering
Manufacturing Technology/Welding
A.S., Fullerton College
B.S.M.E., California State University, Fullerton

DANUFSKY, JOSHUA - Mathematics and Computer Science Mathematics
B.A., B.M., University of California, Irvine
M.S., California State University, Long Beach

DAVIDSON, DEBORAH J. — Fine Arts Art
M.A., California State University, Fullerton
M.F.A., California State University, Long Beach

DAWSON, BRADLEY - Natural Sciences
Biology/Microbiology/Health
B.A., Luther College

Ph.D., University of California, Irvine
DAY, GLENDA M. - Technology and Engineering Cosmetology
A.A., Chaffey Community College
B.V.E., California State University, San Bernardino

DAYTON, STEVEN A. - Business and CIS
Paralegal Studies
A.A., Orange Coast College
B.A., M.A., California State University, Fullerton
J.D., Western State University

DE LEON, SHARON - Social Sciences
Child Development
B.A., Long Beach State University
M.A., California State University, Long Beach

DIAZ, ROBERT - Mathematics and Computer Science Mathematics
A.A., Los Angeles Pierce College
B.A., M.S., California State University, Northridge

DO, VY TRAC - Counseling/Student Development Counseling
M.A., California State University, Fullerton

Ph.D., The Claremont Graduate University
DOMINGUEZ JR., ELIAS G. - Counseling/Student Development Counseling
B.A., University of California, Irvine
M.S., University of La Verne

DONIGAN, LINDSAY M. - Humanities
English as a Second Language (ESL)
B.Ed., College of Ripon \& York St. John
M.S., California State University, Fullerton

DONLEY, ELISE - Mathematics and Computer Science Mathematics
B.S., California State Polytechnic, San Luis Obispo
M.A., California State University, Fullerton
J.D., Western State University

DORADO, DAVID — Natural Sciences

## DOWDALLS, JAMES - Fine Arts

Art
B.F.A., M.A., California State University, Long Beach

DuBOIS, TONI — Vice President, Student Support Services B.A., M.S., California State University, Long Beach Ph.D., Walden University

DUHME, CHERYL - Mathematics and Computer Science Mathematics
B.A., M.A., California State University, Fullerton

EDWARDS, SCOTT W. - Mathematics and Computer Science Computer Science
B.M., M.M., M.S., California State University, Fullerton

EGGERS, CONNIE — Humanities
English
B.A., California State University, San Bernardino
M.A., Western Washington University

EGIGIAN, RUTH - Humanities
Foreign Language
A.A., East Los Angeles College
B.A., Azusa Pacific University
M.A., California State University, Fullerton

EISNER, DOUGLAS - Humanities
English
A.B., Washington University
M.A., University of Wisconsin, Madison

Ph.D., University of California, Riverside
ELLIS, PILAR - Manager, International Students Program
B.S., University of Cincinnati
M.S., California State University, Long Beach

ESPINOZA, LILY — Director, Cadena/Transfer Center
A.A., Diablo Valley College
B.A., University of California, Berkeley
M.A., Columbia University

FACER, CAROLYN - Mathematics and Computer Science
Mathematics
B.S., M.A., Central Michigan University

FARNHAM II, PAUL T. - Mathematics and Computer Science Mathematics
A.S., Long Beach City College
B.S., California State University, Long Beach
M.A., California State University, Fullerton

FEASTER, JEFFREY E. - Natural Sciences Biology/Horticulture
B.A., California State University, Fullerton
M.S., University of California, Riverside

FELENDER, JULIE - Social Sciences Psychology
B.A., California State University, San Diego Ph.D., University of California, Santa Barbara
FIGHERA, CHRISTINE - Facilities
Maintenance and Operations
B.S., B.M., University of Phoenix

FITZSIMMONS, MICHELE C. - Library/Learning Resources
Library Technology
A.A., Fullerton College
B.A., University of California, Santa Barbara
M.A., University of California, Irvine
M.S.L.S., California State University, Fullerton

FLOERKE, BRANDON G. - Humanities English
A.A., Fullerton College
B.A., M.A., California State University, Fullerton

FLORES, CHRISTY - Humanities English
B.A., University of California, Los Angeles
M.A., Ph.D, University of Washington, Seattle

FOSTER, SAMUEL - Natural Sciences Chemistry B.S., Andrews University Ph.D., University of California, Irvine
FOUQUETTE, DANIELLE - Humanities English
B.A., M.A., California State University, Fullerton

FUSCARDO JR., NICHOLAS P. - Physical Education A.B., West Liberty College, West Virginia M.Ed.Ad., California State University, Fullerton

GAITATJIS, ELIZABETH B. - Humanities
English as a Second Language (ESL) B.A., Rutgers University, New Jersey M.A., Northeastern Illinois University

GARCIA, AMY M. - Humanities Reading
B.A., M.S., California State University, Fullerton

GILES, SCOTT - Physical Education M.S., Brigham Young University

GLEASON, TERENCE - Manager, Distance Education B.S., Portland State University M.S., University of California, Riverside M.Ed., University of Phoenix

GOLDSTEIN, JAY - Technology and Engineering Communications A.A., Orange Coast College B.A., California State University, Fullerton

GORDON, KENT A. - Natural Sciences
Horticulture
B.S., University of California, Davis
M.A., California State University, Sacramento

GORDON, ROBERT S. - Technology and Engineering Automotive Technology
B.A., California State University, Fullerton
B.A., California State University, Los Angeles

GRABIEL, SUSAN A. - Social Sciences Geography
M.A., California State University, Fullerton

GREEN, PATRICIA - Social Sciences
Child Development
A.A., Fullerton College
B.S., California State University, Fullerton
M.S., Azusa Pacific University

GREENHALGH, MARK - Dean, Mathematics \& Computer Science B.A., M.A., California State University, Fullerton

GREGG, JANET - Technology and Engineering Fashion Careers
B.A., California State University, Long Beach

GREIN, CYNDI — Manager, Campus Accounting
A.A., Fullerton College
B.S., California State Polytechnic University, Pomona

GUSS, HEIDI - Humanities
English
M.A., California State University, Fullerton

HALVERSON, HEATHER — Counseling/Student Dev Counseling
B.A., California State Polytechnic University, Pomona
M.S., California State University, Fullerton

HANSON, BRUCE - Social Sciences
Philosophy/Religious Studies
M.A., Ph.D., The Claremont Graduate University

HANSTEIN, ANDREA - Public Information Officer B.A., M.A., University of Southern California

HAYNER, WILLIAM G. (BILL) - Fine Arts
Art
B.F.A., University of Texas, Arlington
M.F.A., California State University, Long Beach

HEATH, CAROLYN - Natural Sciences
Earth Science and Biological Science B.S., University of California, Berkeley Ph.D., University of California, Santa Cruz

HENDERSON, ANGELA - Humanities Reading
B.A., University of California, Santa Barbara
M.S., California State University, Fullerton

HENDERSON, BRUCE R. - Humanities English
B.A., Oberlin College, Ohio
M.A., University of Washington

Ph.D., State University of New York, Albany
HENKE, WILLIAM D. - Fine Arts
Art
B.A., M.A., M.F.A., California State University, Fullerton

HOBBS, ROYDEN J. - Natural Sciences
Environmental Science
B.A., University of California, San Diego
M.S., Ohio University

Ph.D., University of Arizona
HODGE, KATHLEEN O'CONNELL - President B.A., M.S., California State University, Fullerton Ed.D., University of Southern California
HOLDEN, MICHAEL D. - Social Sciences Philosophy
A.A., Grossmont College
B.A., University of California, San Diego
M.Div., Southwestern Baptist Theological Seminary

Ph.D., The Claremont Graduate University
HOVEY, ANN - Dean, Business and CIS
B.A., Lenoir-Rhyne College
M.S., University of North Carolina, Charlotte

HOWEY, DENNIS - Technology and Engineering Printing Technology
B.A., M.A., California State University, Long Beach

HOYT-HEYDON, MELA — Fine Arts
Theatre Arts
B.A., University of Redlands
M.F.A., University of California, Irvine

HUCK, BETTY S. - Natural Sciences Chemistry
B.A., University of California, Berkeley
M.S., California State University, Long Beach

HUERTA, FLOR — Counseling/Student Development Counseling/Career Development
B.A., M.S., California State University, Long Beach

HUERTA, NICOLAS - Mathematics and Computer Science Mathematics
B.A., M.A., California State University, Fullerton

HUGHES, DEIDRE — Humanities Reading
B.A., Scripps College
M.A., Northern Arizona University
M.S., California State University, Fullerton

HUI, ARTHUR — Humanities
English as a Second Language (ESL)
B.A., University of California, San Diego
M.A., San Francisco State University

IKEDA, NANCY - Mathematics and Computer Science Mathematics
B.S., University of California, Irvine
M.A., M.S., California State University, Fullerton

INMAN, LOREEN DEMETRO - Humanities
Reading
B.A., Long Island University
M.A., University of Wisconsin
M.S., California State University, Fullerton

ISHIBASHI, JANE — Library/Learning Resources Library Technology
B.A., University of California, Los Angeles
M.L.I.S., University of California, Berkeley

ISON, JOHN — Humanities
English
B.A., University of California, Los Angeles
M.A., California State University, Los Angeles

Ph.D., University of California, Riverside

JACOBSEN, ARLENE - Mathematics and Computer Science Mathematics
B.S., M.S., Western Washington University

JAUREQUI, ROBERT - Counseling/Student Development Counseling
M.A., California State University, Los Angeles
M.S., University of La Verne

Ed.D., Nova Southeastern University
JENSEN, DARLENE - Director, Student Affairs
A.A., Santa Ana College
B.A., California State University, Fullerton
M.A., California State University, Long Beach

JENSEN, ROBERT R. - Dean, Fine Arts
B.A., Washington and Lee University
M.Ed., University of Virginia

JESPERSEN, JEFFREY A. - Physical Education
B.S., Westminster College, University of Utah

JEWELL, JOSEPH - Fine Arts
Music
A.A.S., Onondaga Community College
B.Mus, Syracuse University
M.Mus., Ithaca College
D.M., University of Southern California

JOHNSON, KATHI A. - Humanities
English as a Second Language (ESL)
B.A., San Diego State University
M.S., California State University, Fullerton

JOHNSON, KATE - Fine Arts Art
A.A., Fullerton College
B.A., M.A., California State University, Long Beach

JUAREZ, ARIC - Physical Education
B.S., California Baptist University
M.S., Azusa Pacific University

KANE, LENA T. - Technology and Engineering Photography
A.A., Solano College
B.A., M.A., California State University, Fullerton

KANEKO, BRIAN -Technology \& Engineering Interior Design
B.A., M.A., California State University, Los Angeles

KANG, KELLY - Humanities Foreign Language
A.A., Saddleback College
B.A., M.A., Ph.D., University of California, Los Angeles

KARVIA, NICK - Director, Bookstore
A.A., Lower Columbia Community College
B.A., Western Washington University

KELLY-MANDICH, LINDA - Counseling/Student Development Counseling
B.A., Loyola Marymount University
M.S., California State University, Los Angeles

KETTER, CHARLES D. - Fine Arts
Theatre Arts
B.A., California State Polytechnic University, Pomona
M.F.A., California State University, Fullerton

KIGER, CHRISTINE D. - Director, Health Services
B.S.N., California State University, Chico
M.S.N., West Haven University

KIMURA, STEWART - Counseling/Student Development Counseling
B.A., University of California, Santa Barbara
M.A., California Lutheran University

KIRKHAM, RICHARD A. - Humanities Speech
B.A., M.A., University of Southern California

KISZELY, LIZ - Humanities
Comparative Literature
B.A., University of Wisconsin, Milwaukee
M.A., University of California, Irvine

KLASSEN, KELLY - Mathematics and Computer Science Mathematics
B.A., California State University, Fullerton
M.S., San Diego State University

KLENTOS, GUS - Mathematics and Computer Science Mathematics
B.A., University of Tulsa
M.A.T., Tulane University

KNOERNSCHILD, MARK A. - Humanities English
B.A., M.A., California State University, Long Beach

KOMINEK, BRIDGET - Humanities English
B.A., M.A., University of California, Fullerton

KONG, WEI-PING - Humanities
English as a Second Language (ESL)
M.S., California State University, Fullerton

KRESSE, DOUGLAS - Humanities Speech
M.A., California State University, Fullerton

KRINKE, GARY - Fine Arts
Theatre Arts
B.A., Linfield College

KYLE, DIANA — Social Sciences
Psychology
B.A., M.A., California State University, San Marcos

LAMM, CHRISTINE - Social Sciences Child Development B.S., Maryville College M.A., Pacific Oaks College Ph.D., The Claremont Graduate University
LA MONTIA, MELODY - Technology and Engineering Photography
B.F.A., Academy of Art College, San Francisco
M.F.A., California State University, Long Beach

LARSEN, CHRIS - Mathematics and Computer Science Mathematics
B.A., M.A., California State University, Fullerton

LEAVELL, CHARLES - Natural Sciences Anatomy/Physiology; Ecology; Biology B.A., M.A., California State University, Fullerton

LEBSACK, JOAN - Natural Sciences Chemistry
B.A., Immaculate Heart College
M.S., Washington State University

LEE, CALLISTA M. - Social Sciences Psychology
A.A., Los Angeles Pierce Community College
B.A., California State University, Northridge
M.S., California State University, Long Beach

LEE, MONICA - Fine Arts
Music
B.M., University of Oklahoma
M.M., University of Maryland
D.M., Northwestern University

LEE, SCOTT - Counseling/Student Development Articulation Officer
B.S., California State University, Fullerton
M.A., California State University, Dominguez Hills

LEVESQUE, RICHARD - Humanities English
B.A., M.A., California Polytechnic University, Pomona

Ph.D., University of California, Riverside
LEWIN, PAMELA - Physical Education
A.A., Orange Coast College
B.A., M.S., California State University, Hayward

LINAHON, JAMES J. - Fine Arts
Music
B.A., University of Northern Iowa
M.M.E., North Texas University

LINGGI, EDWARD - Humanities
Foreign Language
M.A., University of California, Santa Barbara

LIU, ANNIE - Humanities
English
B.A., University of California, Irvine
M.A., University of California, San Diego

LOPEZ, ADELA G. - Social Sciences
Ethnic Studies
B.A., M.A., California State University, Long Beach

LOPEZ, CONNIE - Technology and Engineering Cosmetology
B.S., Southern Illinois University, Carbondale
M.A., California State University, San Bernardino

LOPEZ, DAVID - Technology and Engineering
Automotive Technology
A.S., Rio Hondo College
B.A., University of Phoenix

LOWE, CLAUDIA — Social Sciences Geography
A.A., Fullerton College
B.A., M.A., California State University, Fullerton

LOZINSKY, RICHARD - Natural Sciences
Earth Science
B.S./B.A., Humboldt State University
M.S., University of New Mexico

Ph.D., New Mexico Institute of Mining and Technology
LUNDERGAN, ROBERT - Humanities English
B.A., M.A., California State University, Chico

Ph.D., University of Wisconsin, Milwaukee
MAGEE, D. B. - Humanities
English
B.B.A., University of Louisiana, Monroe
M.A., The University of Alabama

Ph.D., Texas Christian University
MAJORS, GENE W. - Mathematics and Computer Science Mathematics
A.A., Long Beach City College
B.A., M.A., California State University, Long Beach

MALLOY, SCOTT - Mathematics and Computer Science Mathematics
A.A., Fullerton College
B.A., University of California, Los Angeles
M.S., California State University, Northridge

MANDE, ANUPAMA - Social Sciences
History
B.A. Stella Maris College (India)
M.A., Ph.D., Ohio State University

MARKLEY, KAREN - Social Sciences Anthropology
B.A., M.A., California State University, Fullerton

MARTINEZ, MARCIANO - Fine Arts Art
B.A., California College of Arts and Crafts
M.F.A., The Claremont Graduate School

MATTSON, CAROL - Dean, Academic Services A.A., Fullerton College B.F.A., M.A., Chapman University

MAYFIELD, PHILIP F. - Humanities English
B.A., University of California, Santa Barbara
M.A., University of Houston

MAZZAFERRO, ANTHONY P. - Fine Arts Music
B.M., San Francisco State University
M.M., Northwestern University
D.M.A., Arizona State University

McALLISTER, G. ALAN - Business and CIS Accounting; Business
B.S., M.B.A., California State University, San Bernardino

McCLOUD, EDWARD - Business and CIS Accounting
B.A., M.S., California State University, Fullerton

McGREW, PATRICK A. - Technology and Engineering Construction Technology
A.A., San Diego Mesa College
A.S., Fullerton College
B.S., University of Phoenix

McKENZIE, SCOTT V. - Dean, Technology and Engineering A.A., Fullerton College
B.A., M.A., California State University, Long Beach

McKINLEY, PAUL — Disability Support Svs/Student Support Svs Adaptive Computer Lab B.A., M.S., California State University, Fullerton

McMILLAN, RICHARD - Fine Arts Art and Graphic Design
B.A., University of Central England, Birmingham, U.K.

McQuEEN, DEBORAH - Mathematics and Computer Science Mathematics
A.A., Fullerton College
B.A., M.A., California State University, Fullerton

MEEHAN, KENNETH A. - Director, Institutional Research B.S., Georgetown University M.A., California State University, Fullerton Ph.D., University of Hawaii at Manoa

MEISENHELDER, CECILIA D. - Counseling/Student Development Counseling
A.A., Orange Coast College
B.S., California State University, Fullerton
M.S., University of Southern California

MELELLA, LAURA - Business and CIS
Computer Information Systems
B.S., California State University, Fresno
M.A., Pepperdine University

MILLER, BRUCE - Fine Arts
Music
B.M., University of Hartford
M.M., University of Cincinnati

Ph.D., University of California, Los Angeles
MILLER, ROBERT R. - Fine Arts Art
B.A., M.A., California State University, Long Beach

MINTON, JEFFREY A. - Technology and Engineering Photography
A.A., Pasadena City College
B.A., University of California, Riverside
M.F.A., California State University, Fullerton

MIRANDA, ROBERT - Director, Financial Aid,
Veteran/Student Services
A.A., Cerritos College
B.A., M.P.A., California State University, Dominguez Hills

MOLINA, ROSA - Technology and Engineering
Cosmetology
A.A., Riverside Community College
B.S., M.A., California State University, San Bernardino

MONREAL, M. LEONOR - Social Sciences
Anthropology
A.A., Fullerton College
B.A., M.A., California State University, Fullerton

MOORE, MICHAEL - Technology and Engineering
Communications
A.A., Fullerton College
B.A., Antioch University
M.Ed., University of La Verne

MORGAN, REBECCA - Counseling and Student Development Counseling
B.S., Columbia International University
M.A., Psy.D., Biola University

MORISON, BOB - Engineering Supervisor, Media Systems
MORRIS, TOM E. - Natural Sciences
Environmental Science
B.S., San Diego State University
M.A., University of California, Berkeley

MUMMERY, FRANCIS - Social Sciences
Economics
A.S., Cypress College
B.A., M.A., M.B.A., California State University, Fullerton

NACK, SUSAN - Mathematics and Computer Science Mathematics and Computer Science
B.A., Queens College of City University of New York
B.S., M.S., California State University, Long Beach

NAUER, KATHLEEN Y. - Fine Arts
Computer Graphics
B.F.A., University of Illinois
M.F.A., University of Arizona

NEGRETE, RENA - Interim, Registrar
NEGUS, A. LYNNE — Social Sciences History
B.A., M.A., University of California, Berkeley
M.A., Ph.D., University of California, Los Angeles

NELSON, LEVONNE - Social Sciences Philosophy
M.A. (Philosophy), Ohio University
M.A. (English), Ohio University

NELSON-WRIGHT, KELLY - Social Sciences Sociology
B.A., M.A., California State University, Fullerton

NETTLESHIP, LOIS - Social Sciences
History
B.A., Sarah Lawrence College
M.A., Columbia University

Ph.D., University of Sussex
NGUYEN, GREGORY V. - Mathematics and Computer Science Mathematics
A.A., Orange Coast College
B.S., M.S., California State University, Long Beach

NGUYEN, KARYN - Counseling and Student Development Counseling
B.A., M.A., University of San Diego

NICCOLAI, NILO - Director, Academic Computing Technology B.S., Carnegie Institute of Technology
M.S., Ph.D., Carnegie Mellon University

NOLAN-RIEGLE, MARY C. - Natural Sciences Biology
B.A., Montclair State University
M.A., Ph.D., Rutgers University

O'BRIEN, DAN - Technology and Engineering Machine Tools
A.A., Orange Coast College
B.A., California State University, Long Beach

O'CONNOR, ADAM M. - Director, Budget and Finance
A.A., Orange Coast College
B.S., California State University, Long Beach M.P.A., California State University, Dominguez Hills

O'DONNELL, CATHRYN COLLOPY - Humanities Foreign Language
B.S., New York State University, Buffalo
M.A., New York University

Ph.D., University of California, Irvine
OGLESBY, EDGAR - Technology and Engineering Administration of Justice
A.A., East Los Angeles College
B.A., California State University, Los Angeles
M.P.A., University of Southern California

OKAMURA, JILL — Library/Learning Resources
Library Technology
B.A., M.L.I.S., University of California, Los Angeles

ORLIJAN, KIMBERLY — Humanities
English
B.A., M.A., Ph.D., University of California, Riverside

ORR, JOHN C. - Humanities
B.A., Amherst College, Massachusetts
M.A., The Claremont Graduate University

OUCHI, BRYAN Y. — Disability Support Svs/Student Support Svs Learning Disabilities
B.A., University of California, Los Angeles
M.A., Fuller Theological Seminary
M.A., Alliant International University

PADILLA, GERALD M. - Social Sciences
Ethnic Studies/History
B.A., California State University, Fullerton
M.A., University of California, Los Angeles

PELLEGRINO, ELMER - Technology and Engineering
Administration of Justice
A.A., College of The Siskiyous
B.S., California State University, Long Beach
M.A., California State University, Fullerton

PEREZ, EMILIO - Director, Campus Safety
A.A., East Los Angeles City College
B.S., California State University, Los Angeles
M.P.A., University of Southern California

PEREZ, JAIME — Fine Arts
Art
M.A., California State University, Long Beach

PEREZ, MARIE L. - Technology and Engineering
Cinema-Radio-Television
B.A., University of North Carolina, Chapel Hill
M.A., California State Polytechnic University, Pomona

PETERSON, QUEEN - Counseling/Student Development Counseling
M.A., Chapman University

Ed.D., Argosy University
PHELAN, ROBERT S. - Humanities
Speech
B.A., University of California
M.A., San Francisco State University

PIAZZA, STEPHANIE - Humanities
Reading
B.A., M.A., California State University, Fullerton

PIMENTEL, SYLVIA - EOPS/Student Services Counseling
B.A., California State University, Fresno
M.S.W., University of Southern California

PLEDGER, SHIRLEE I. - Humanities Speech
A.A., Fullerton College
B.A., M.A.; California State University, Fullerton

PLETT, STEPHEN L. - Mathematics and Computer Science Mathematics
A.A., Fullerton College
B.A., California State University, Fullerton
M.S., University of California, Riverside
M.A., California State University, Fullerton

PLISKA, STEVEN M. - Fine Arts
Theatre Arts
B.A., M.F.A., University of California, Los Angeles

PLUM-WIDNER, ALIX — Physical Education
B.A., California State University, Long Beach
M.A.Ed., Azusa Pacific University

POPE, DANIEL L. - Fine Arts Art
B.A., Chapman University
M.A., California State University, Long Beach

PORTMAN, SHARON - Humanities English as a Second Language (ESL) B.A., California State University, Long Beach M.S., California State University, Fullerton

PORTOLAN, JANET S. - Vice President, Educational Support and Planning
B.A., M.A., San Francisco State University

Ed.D., University of California, Los Angeles
POWERS, MIGUEL - Humanities English
B.A., University of San Diego
M.A., Indiana University

PRICE, RENE - Mathematics and Computer Science Mathematics
B.S., M.S., California State University, Long Beach

PRICE, RHETT J. - Physical Education Recreation Administration
A.A., Fullerton College
B.A., B.S., M.S., California State University, Long Beach

PUMMER, JOHN JOSEPH - Technology and Engineering Welding
A.A., John Patterson College; Montgomery, Alabama
B.S., Auburn University, Auburn, Alabama

QUIRK, SHAWN C. - Humanities
English
B.A., University of Wisconsin
M.A., University of Connecticut

RAMSEY, PEGGY M. - Natural Sciences Nutrition and Foods B.S., M.S., University of Tennessee

RAPP, EDWARD - Physical Education B.S., California State University, San Diego M.Ed., Azusa Pacific University

REHA, DELORES - Business and CIS Business Management
B.A., University of California, Irvine
M.A., National University

REILLY, JOSEPH - Social Sciences History; Political Science B.A., M.A., University of California, Los Angeles

REYES, JR., JOE S. - EOPS/Student Services Counseling
A.A., Compton Community College
B.A., University of California, Los Angeles M.S., California State University, San Diego

REYNOLDS, CAROL W. - Natural Sciences
Nutrition and Foods
B.S., Marymount College
M.A., New York University

RICHARDS-DINGER, KARI - Mathematics and Computer Science Mathematics
B.S., University of California, Santa Barbara
M.S., University of California, San Diego
M.A., California State University, Fullerton

RITTER, WALLACE - Business and CIS
Business Management
B.A., M.B.A., California Polytechnic University, Pomona

Ph.D., Claremont Graduate School
ROBINSON, KAREN - Natural Sciences
Nutrition and Foods
B.S., California State University, Long Beach
M.S., California State University, Northridge

RODGERS, CAROLANNE - Business and CIS
Computer Information Systems
B.A., State University of New York, Buffalo
M.A., California State University, San Bernardino

RODINE, JEFFREY - Humanities
Reading
B.A., California State Polytechnic University, Pomona
M.A., United States International University

ROSA, MELANIE K. - Physical Education Dance
B.A., M.A., M.F.A., University of California, Irvine

ROSE, KAREN — Director, Office of Special Projects
B.A., University of Oklahoma
M.S., Central State University, Oklahoma

ROSEN, ELLEN M. - Humanities English as a Second Language (ESL)
B.A., Calvin College, Grand Rapids, Michigan
M.A., University of California, Los Angeles

RUIZ, ROSALINDA M. - Humanities English
B.A., M.A., California State University, Fullerton

RUNDUS, KATHARIN - Fine Arts Music
B.M., Coe College
M.M., Westminster Choir College D.M.A., Claremont Graduate University

RYAN, GREG - Director, Financial Aid
B.F.A., California Institute of the Arts
M.A., University of Liverpool

ST. JOHN, PAUL — Business/CIS
Accounting
A.A., Santa Monica College
B.S., California State University at Long Beach

SALAS, RICARDO - Social Sciences
Political Science
M.A., University of California, Santa Barbara

SAMPSON, KEVIN - Technology and Engineering
Administration of Justice
B.A., California State University, Long Beach
M.S., M.Ed., University of La Verne

Ed.D., University of Southern California

SANABRIA, ROLANDO - Counseling and Student Development Counseling
B.S., California State University, Fullerton
M.S., California State University, Long Beach

Ed.D., Argosy University
SANCHEZ, VIRGINIA - EOPS/Student Services
Counseling
A.A., Fullerton College
B.S., California State University, Fullerton
M.S., California State University, Dominguez Hills

SAPIRO, JACOB — Natural Sciences
Anatomy/Physiology/Microbiology; Biology
B.S., Brooklyn College

Ph.D., Case Western Reserve University
SCHILLING, CHARLES - Humanities Speech
A.A., Santa Ana College
B.A., M.A., California State University, Fullerton

SCOTT, ERIN — Fine Arts Art
M.F.A., California State University, Fullerton

SCOTT, MICHAEL — Fine Arts Music
B.M., M.M., University of Southern California

SEATON, DERRY D. - Social Sciences Philosophy and Religious Studies B.A., Oklahoma Baptist University M.Div., Southern Theological Seminary M.A., The Claremont Graduate University

SEE, ROGER - Physical Education
B.A., M.A. (History), California State University, Fullerton

SEIDEL, JAY - Technology and Engineering Communications/Journalism
A.A., Fullerton College
B.A., M.A., California State University, Fullerton

SHERMAN, GEORGE C. - Natural Sciences Physics
B.S., Stanford University
M.S., Ph.D., University of California, Los Angeles

SHEW, JAMIE - Fine Arts Music
B.M., Washington State University
M.M., Western Michigan University

SHIDELER, LINDA - Mathematics and Computer Science Mathematics
B.A., M.A., California State University, Fullerton
M.A., University of California, San Diego

SHIER, CAROL G. - Humanities Reading
B.A., M.A., University of Arkansas
M.S., California State University, Fullerton

SIERRA, JAVIER - Manager, Maintenance and Operations B.A., University of Phoenix

SIPPLE, RUTH — Disability Support Svs/Student Support Svs Learning Disabilities
B.S., University of Connecticut
M.S., California State University, Fullerton

SJOBERG, PAUL - Mathematics and Computer Science Mathematics
B.S., University of Redlands
M.A., University of California, Santa Barbara

SMEAD, RICHARD - Business and CIS
Computer Information Systems
A.A., Fullerton College
B.S., California State University, Fullerton

SMITH, CHARMAINE - Business and CIS
Accounting; Real Estate
B.S., California State University, Long Beach
M.A., National University

SMITH, GEOFFREY - Humanities English
B.A., Point Loma Nazarine University
M.A., California State University, Fullerton
M.S., Walden University

SMITSON, ROBERT M. - Technology and Engineering
Administration of Justice
A.A., Los Angeles City College
B.S., California State University, Los Angeles
M.P.A., University of Southern California

SNYDER, PETER - Physical Education
B.A., M.A., Stanford University

Ph.D., University of California, Santa Barbara
SOLOMON, BETH R. - Fine Arts Art
B.A., San Diego State University M.F.A., California State University, Fullerton

SPENCER, NORA - Business and CIS
Computer Information Systems
A.A., Fullerton College
B.A., M.S., California State University, Fullerton

STANAWAY, CARL - Fine Arts
Art
M.F.A., Cranbrook Academy of the Arts

STANDEN, KATHLEEN G. - Business/CIS
Business Management
B.S., B.A., Ohio State University
M.B.A., University of California, Los Angeles

STANGER, CLAUDIA - Humanities
English
A.B., University of California, Berkeley
M.A., Ph.D., University of Southern California

STOKES, JERRY - Technology and Engineering
A.A., Prairie View A\&M College

STOKES, SHEILAH M. - Humanities English
B.A., University of San Francisco
M.A., California State University, Fullerton

TAAR, MIREILLE - Humanities
Foreign Language
B.A., University of California, Los Angeles
M.A., University of Texas, Austin

Ph.D., University of California, Los Angeles

TACKABURY, PAMELA - Humanities
English
B.A., University of Denver
M.A., University of Nevada

TAGUCHI-TRIEU, TANOMO - Mathematics and Computer Science Mathematics
B.A., M.A., California State University, Fullerton

TAYLOR, MATTHEW D. - Humanities Speech
B.S., Pacific Lutheran University
M.S., University of Oregon

Ph.D., University of Southern California
TEBAY, JOHN C. - Fine Arts
Music
B.M., Biola University
M.M., California State University, Long Beach

TEIPE, EMILY - Social Sciences
History and Women's Studies
B.A., M.A., California State University, Fullerton

Ph.D., University of California, Riverside
TELLEFSEN, BLYTHE A. - Humanities English
A.B., Occidental College
M.A., California State University, Los Angeles

Ph.D., University of California, Riverside
TERNES, LINDA - Mathematics and Computer Science Mathematics
B.S., Vanguard University
M.S., California State University, Long Beach

TESAR, DANIEL - Dean, Social Sciences
B.A., Cornell College
M.A., University of lowa

THOMAS, DAVID A. - Technology and Engineering Construction Technology; Engineering
B.A., California State University, Los Angeles
M.A., Ed.D., United States International University

THOMAS, PATRICIA - Humanities English
B.S., M.Ed., Auburn University

Ph.D., Texas A \& M University
TROOP, JANE - Business and CIS
CIS
B.A., California State University, Fullerton
M.S., California State University, Los Angeles

TRUILLO, TAMARA - Humanities English
B.A., California State University, Northridge
M.A., Arizona State University

TURNER, ARIENNE K. - Social Sciences
Economics
A.B., California State University, Chico
M.A., California State University, Long Beach

UYEDA, ELEANOR M. - Business and CIS Office Administration
A.A., Orange Coast College
B.S., University of California, Los Angeles
M.A., Chapman University

VAN RY, MICHELE — Fine Arts
Art
B.A., M.F.A., University of California, Irvine

VANDERPOOL, JEFFREY - Social Sciences
Philosophy
B.A., California State University, Fullerton
M.A., Ph.D., University of California, Riverside

VELOZ, OLIVIA - Director, Academic Support Center
A.A., Cerritos College
B.A., M.B.A., University of Phoenix

VERZEANU, RAZVAN - Mathematics and Computer Science Mathematics
B.A., University of Southern California
M.S., University of California, Irvine

VIDAL, SUNSHINE D. - Counseling/Student Development Counseling
A.A., Golden West College
B.A., California State University, Long Beach
M.S., California State University, Fullerton

VINCENT, LENNY - Natural Sciences
Biology
B.A., California State University, Northridge
M.S., University of California, Davis

Ph.D., University of California, Berkeley
VINCENT, SUSAN — EOPS/Student Services
Counseling
B.A., University of the Pacific
M.S., California State University, Los Angeles

VORNICEL-GUTHMANN, VIOLETTE - Humanities
Foreign Language
FrenchDUEL, Strasbourg, France
Licence `es Lettres Modernes, Aix-En-Provence, France
M.A., Ph.D., University of California, Irvine

WALKER, JOHN T. - Social Sciences
History
B.A., Dartmouth College
M.A., University of Southern California
M.A., Ph.D., University of California, Irvine

WALZER-PRIETO, AMANDA - Humanities English
B.A., University of California, Los Angeles
M.F.A., Antioch University

WAN, PETER P. - Social Sciences History
B.A., East China Normal University Ph.D., Harvard University
WARD, CAROL - Technology and Engineering
Cosmetology
A.A., Fullerton College
B.V.E., M.A., California State University, Long Beach

WHALEN, KATHLEEN A. - Physical Education
A.A., Fullerton College
B.A., California State University, Long Beach
M.A., California State University, Fullerton

WILLENBRING, JOEL H. - Business and CIS
Computer Information Systems
A.A., Orange Coast College
B.S., California State University, Long Beach
M.B.A., Pepperdine University

WILLOUGHBY, DAN — Dean, Humanities B.A., University of California, Berkeley M.S., California State University, Fullerton

WILSON, MARCUS - Business and CIS Business
B.S., M.B.A., University of Southern California
J.D. Law Center, University of Southern California

WITTMAN, EDWARD R. - Business and CIS Computer Information Systems B.A., Rutgers University M.S., California State University, Long Beach

WOELKE, DEBORAH - Physical Education A.A., Fullerton College
B.S., M.S., California State University, Fullerton

WOLFE, JEANA G. - Social Sciences
Psychology
A.A., Ventura College
B.S., California Polytechnic University, San Luis Obispo
M.A., California State University, Northridge

WOLL, GREG - Fine Arts
Music
M.A., University of North Texas
D.M.A., The Claremont Graduate University

WOOLRIDGE, NANCY A. - Business and CIS
Computer Information Systems
B.S., Regis College
M.S., The Claremont Graduate University

WRIGHT, DORIS - Technology and Engineering Cosmotology
B.A., Union Institute and University

WU, JO WEN — Natural Sciences Biology
B.S., University of Missouri, Columbia

Ph.D., University of California, Irvine

YAMAGUCHI, ROBERT - Business and CIS
Business Management
D.B.A., United States International University, San Diego

YIMENU, TILAHUN - Natural Sciences Chemistry
B.A., Coppin State College

Ph.D., Howard University
YOUNG, CALVIN — Natural Sciences Biology
B.A., University of California, Berkeley

Ph.D., Columbia University

ZARSKE, CINDY - Mathematics and Computer Science Mathematics
B.A., M.A., California State University, Fullerton
For non-course information, see Table of Contents in front of catalog.
COURSE INDEX
-A-
ACCOUNTING (ACCT). ..... 160
Accounting for Small Business
Accounting for Small Business ..... 160 ..... 160
Analysis of Financial Statements. ..... 161
Auditing ..... 161
Computerized Accounting ..... 160
Cost Accounting ..... 161
Current Topics in Taxation ..... 160
Financial Accounting Principles ..... 160
Financial Accounting ..... 160
Income Tax Procedure ..... 161
Intermediate Accounting. ..... 161
Managerial Accounting ..... 160
Payroll Accounting. ..... 160
QuickBooks ..... 161
ADMINISTRATION OF JUSTICE (AJ) ..... 161
Advanced Criminal Law ..... 164
Basic Police Academy Orientation ..... 164
Basic Police Academy, Extended Format I/II. ..... 161
CAD/Crime Scene Application ..... 164
Child Abuse/Child Pornography ..... 163
Community-Oriented Policing and Problem Solving. ..... 162
Conflict Resolution for Police Officers ..... 162
Contemporary Issues in Law Enforcement ..... 165
Crime Scene Investigation ..... 163
Crime Scene Techniques. ..... 165
Criminal Investigation ..... 165
Criminal Law. ..... 164
Criminal Procedure ..... 164
Cultural Diversity ..... 162
Current Issues in Administration of Justice ..... 162
DNA Genetic Fingerprinting ..... 164
Domestic Violence ..... 163
Emergency Management ..... 162
Firearms ..... 164
Gang Awareness Update. ..... 163
H\&S 11550 Drug Influence ..... 162
Interview and Interrogation Update ..... 162
Investigating Domestic Terrorism ..... 162
Investigation of Homicidal Behavior ..... 165
Juvenile Procedures ..... 164
Law Enforcement Career Preparation ..... 163
Law Enforcement Instructor Development ..... 163
Law Enforcement Supervisory Update. ..... 164
Law Enforcement ..... 164
Lifetime Fitness for Law Enforcement ..... 163
Multi-Agency Task Forces ..... 162
Multicultural Issues Within Admin of Justice ..... 165
Narcotics and Vice Control ..... 165
Narcotics Training for Field Officers ..... 163
Organized Crime and the Criminal Justice System ..... 165
Organized Crime ..... 162
Parolee Contacts ..... 162
PC832 Arrest, Control and Firearms Training ..... 165
Police Patrol ..... 165
Police Vehicle Pursuits ..... 163
Police-Community Relations ..... 164
Preventing Racial Profiling. ..... 162
Preventing Sexual Harassment ..... 164
Probation and Parole ..... 164
Report Writing . ..... 164
Rules of Evidence ..... 165
Supervisory Response to Officer Involved Shooting ..... 163
Tactical Awareness. ..... 163
Traffic Enforcement ..... 164
Use of Force ..... 163
Values, Principles, and Ethics ..... 163
Weaponless Defense. ..... 164
Weaponless Defense/Baton Training. ..... 163
ANATOMY AND PHYSIOLOGY (ANAT) ..... 165
General Human Anatomy ..... 165
Human Physiology ..... 166
ANTHROPOLOGY (ANTH) ..... 166
Anthropology Independent Study ..... 167
Archaeology ..... 166
Celtic Cultures *NEW* ..... 167
Cultural Anthropology ..... 166
Cultures of Latin America ..... 167
Field Course in Archaeology ..... 167
Honors Cultural Anthropology ..... 166
Honors Physical Anthropology ..... 166
Language and Culture ..... 166
Physical Anthropology Lab ..... 166
Physical Anthropology ..... 166
Primate Behavior ..... 167
The Anthropology of Magic, Witchcraft and Religion ..... 166
ARABIC (ARAB) ..... 167
Elementary Arabic I/II ..... 167
ARCHITECTURE (ARCH) ..... 167
Architectural CAD I/II/III/IV ..... 168
Architectural Drawing ..... 168
Design Studio I/II/III ..... 168
Internship in Architecture ..... 168
ART COMPUTER GRAPHICS (ACG) ..... 168
2-D Computer Graphics and Paint for DOS ..... 169
3-D Computer Animation for Macintosh. ..... 169
3-D Graphics/MAC ..... 168
3-D Modeling ..... 169
Computer Graphics/MAC ..... 168
Desktop Publishing I for Macintosh ..... 169
Desktop Publishing ..... 169
Digital Photography ..... 169
Digital Video ..... 169
Dimensional Design/MAC ..... 169
Electronic Illustration ..... 169
Electronic Paint for MacIntosh.
169
169
Multi Media for Macintosh ..... 169
Multimedia Authoring ..... 169
Survey of Graphics Software ..... 169
Web Graphics/MAC ..... 168
ART (ART) ..... 170
Advertising Design ..... 171
Anatomical Figure Drawing ..... 174
Art History - Ancient and Medieval ..... 170
Art History - Impressionism to the Present ..... 170
Art History - Mexico
170
170
Art History - Renaissance to Modern ..... 170
Art Independent Study ..... 175
Art Seminar ..... 174
Basic Design ..... 170
Business Practices in Art ..... 171
Ceramics ..... 171, 172
Color Theory ..... 170
Design and Color for Non-Art Majors ..... 170
Drawing ..... 173
Fashion Sketching ..... 171
Fundamentals of Cartooning ..... 171
Gallery Design and Exhibition ..... 170
History of American Art ..... 170
Honors Creative Arts - Art ..... 174
Automotive Electrical and Electronic Systems ..... 176
Automotive Engine Performance and Drivability ..... 176
Automotive Engine Performance ..... 176
Automotive Fundamentals ..... 175
Automotive Powertrains ..... 176
Automotive Specialty Practice ..... 175
Brake and Suspension Systems Repair ..... 176
Brake Systems Repair ..... 176
Cylinder Head Repair ..... 177
Emission Control Systems and Advanced Diagnosis ..... 177
Engine Rebuilding and Repair ..... 176
Engine Reconditioning ..... 176
Fuel Systems and Advanced Drivability ..... 177
Internship in Automotive ..... 175
Performance Technology ..... 177
B-
BIOLOGY (BIOL) ..... 177
Biology of Insects and Spiders ..... 178
Cell and Molecular Biology ..... 179
Fundamentals of Biology ..... 177
General Biology ..... 177
General Botany. ..... 179
General Ecology ..... 179
General Zoology ..... 178
Genetics and Biotechnology in Society ..... 178
Genetics and Evolutionary Biology ..... 179
Honors General Biology ..... 178
Human Biology ..... 178
Marine Biology. ..... 178
Marine Mammal Biology and Conservation ..... 178
Organismal Biology ..... 178
Plants and People ..... 178
Principles of Biology ..... 177
Advanced Topics in Business ..... 182
BUSINESS (BUS) ..... 179
Business Communications ..... 180
Business Economics. ..... 180
Business English ..... 180
Business Finance ..... 182
Business Law ..... 181
Business Mathematics ..... 180
Business Plan Development ..... 181
Business Skills Internship ..... 180
Common Stock ..... 179
Current Issues in Business ..... 180
Doing Business Online. ..... 181
Fixed Income Securities ..... 179
Human Relations in Business ..... 182
International Business Law ..... 182
International Management ..... 181
International Marketing ..... 181
Investment and Retirement Plans ..... 180
Leadership and Business Ethics ..... 182
Legal Environment of Business ..... 181
Managerial Communications ..... 182
Managing Business Projects ..... 182
Personal Financial Management ..... 180
Personal Investments ..... 181
Principles of E-Business ..... 180
Principles of Import/Export ..... 180
Principles of International Business ..... 180
Principles of Management ..... 182
Principles of Supervision ..... 182
Securities Market, The ..... 179
Small Business Management ..... 181
Stock Options ..... 180
Writing for Business ..... 181
-C-
CHEMISTRY (CHEM) ..... 182
Basic Concepts of Organic and Biochemistry ..... 183
Chemistry for Daily Life ..... 182
Chemistry in a Changing World ..... 183
Elementary Chemistry ..... 183
Elementary Organic Chemistry ..... 183
General Chemistry ..... 183
Intro to Chemistry ..... 183
Organic Chemistry ..... 183
CHILD DEVELOPMENT \& ED STUDIES (CDES) ..... 184
Adolescent Development ..... 185
Advanced Curriculum Design Seminar ..... 187
Anti-Bias Perspective Seminar ..... 184
Bilingual/Cross-Cultural Teacher Aide Methods ..... 187
Business Principles of Family Child Care ..... 185
Child Development Independent Study ..... 185
Child Development. ..... 184
Child in the Home and Community ..... 185
Classroom Practices for Diverse Learners ..... 186
Creating Environments for Young Children ..... 186
Early Childhood Art Education ..... 184
Early Childhood CPR and First Aid ..... 185
Early Childhood Ed Administration I/II ..... 186, 187
Early Childhood Education (ECE) Curriculum ..... 184
Early Childhood Language and Literary Education. ..... 184
Early Childhood Music Education ..... 185
Early Childhood Science and Math Education ..... 185
Early Childhood Teaching with Field Experience ..... 186
Early Childhood Teaching ..... 184
Elementary Classroom Teaching ..... 187
Elementary Classroom Teaching: Observation. ..... 187
Environments and Programs for Family Child Care ..... 185
Games and Rhythms for Elementary Schools ..... 187
Health, Safety, Food and Nutrition for Children ..... 186
infant/Toddler Development and Observation ..... 185
Leadership in the Early Childhood Profession ..... 187
Liberal Studies ..... 187
Observation \& Assessment for Early Learning *NEW* ..... 185
Perceptual-Motor Development for Children ..... 186
Personal Proficiency in Ed Technologies ..... 187
Principles and Techniques for Early Childhood Special Ed ..... 186
Principles of Early Childhood Education ..... 184
Principles of Infant/Toddler Care and Education. ..... 185
School-Age Child: Program, Curriculum, Guidance ..... 185
Secondary Teaching ..... 187
Special Education ..... 185
Teaching Peace ..... 1
The Process of Parenting ..... 185
The Role of the Para-Professional in Diverse Settings ..... 186
Working with Families of Children with Special Needs
Elementary Chinese - Mandarin I-IV . ..... 188
CINEMA-RADIO-TV (CRTV) ..... 188
American Cinema, The ..... 188
Audio Production Techniques ..... 189
Broadcast Advertising Sales ..... 189
Bradcast Audio Production. ..... 189
Broadcast News ..... 189
Broadcast TV and Radio Announcing ..... 189
Cinema-Radio-Television Independent Study ..... 190
Communications Seminars ..... 190
Contemporary Cinema ..... 189
Digital Editing, Graphics and Effects. ..... 190
Digital Production/Non-Linear Editing ..... 190
Documentary Filmmaking ..... 190
Current Computer Topics ..... 191
Database ..... 192, 195
Dreamweaver. ..... 193, 196
Enterprise Networking ..... 196
Exchange Server ..... 196
Information Systems ..... 192
Internet Entertainment ..... 192
Internet Research ..... 192
Internet ..... 192
Java Programming ..... 195
JavaScript Programming ..... 193, 195
Macro Programming. ..... 194
Netware System Manager ..... 195
Network Intrusion and Detection ..... 194
Network Security Fundamentals ..... 194
Networking Concepts ..... 194
Networking Hardware ..... 196
Office Certification Preparation ..... 191
Open Source Software ..... 191
Operating Systems and Computer Forensics ..... 194
Operating Systems. ..... 192
Oracle: SQL and PL/SQL ..... 196
PC Communications ..... 191
Personal Computer Security ..... 192
Personal Computers ..... 191
PHP and MySQL Programming ..... 195
Presentation Graphics ..... 191
Programming in $\mathrm{C}_{++}$ ..... 195
Project Management ..... 192
Robotic Programming ..... 194
Solaris System Administration. ..... 196
Spreadsheet ..... 191, 194
SQL Server Administration ..... 196
Tools for Computer \& Network Forensics ..... 194
Unix Operating System ..... 196
Visual Basic Programming ..... 194
Web Page Design ..... 191, 193, 195
Web Page Multimedia Design ..... 193, 195
Web Server Management ..... 196
Web Server Programming ..... 194 ..... 194
WebMaster - Administration, Foundations, Designer ..... 193
Windows Active Directory ..... 196
Windows Professional ..... 196
Windows Server ..... 196
Word Processing ..... 192
XML ..... 193
XML Programming ..... 195
COMPUTER INFORMATION SYSTEMS — GAMING (CISG) ..... 197
Artificial Intelligence in Game Programming ..... 197
C\# for Game Programming ..... 197
C++ for Game Programming ..... 197
Computer Game Design ..... 197
DirectX Graphics Programming ..... 197
Game Programming in Flash ..... 197
Java for Game Programming ..... 197
Programming for Computer Games ..... 197
Programming Multi-User Online Games ..... 197
COMPUTER SCIENCE (CSCI) ..... 198
C Language for Mathematics and Science ..... 198
Computer Organization \& Assembly Lang Prog . ..... 198
Data Structures in C++ ..... 198
Programming Concepts in $\mathrm{C}_{+}+$ ..... 198
CONSTRUCTION (CSTR) ..... 198
Alternate Energy ..... 199
Beginning Residential Construction ..... 200
Building Design for Hazardous Materials ..... 199
Business Administration for the Construction Industry ..... 199
California Accessibility \& Energy Costs ..... 199
Commercial Construction Blueprint Reading ..... 199
Commercial Mechanical Code ..... 199
Computer Design Software for the Contractor ..... 200
Computer Estimating in Construction ..... 200
Concrete and Masonry ..... 200
Construction Blueprint Reading ..... 199
Construction Management. ..... 198
Construction Materials, Specs and Purchasing ..... 200
Construction Project Scheduling ..... 200
Construction Technology Lab ..... 198
-E-
EARTH SCIENCES (ESC) ..... 207
Astronomy ..... 207
Earth Science Survey ..... 207
Environmental Geology ..... 208
Geology and California Coastal Areas ..... 208
Geology of California ..... 208
Geology of Colorado Plateau Areas ..... 209
Geology of National Parks and Monuments ..... 207
Geology of the Anza-Borrego Desert State Park Area ..... 208
Geology of the Death Valley National Park Area ..... 209
Geology of the Joshua Tree National Park Area ..... 209
Geology of the Mojave Desert Area ..... 209
Geology of the Orange County Area ..... 207
Geology of the Owens Valley/Mammoth Lakes Area. ..... 209
Geology of the Southern California Mountain Areas. ..... 209
Historical Geology ..... 207
Meteorology ..... 207
Modern Techniques in Sampling ..... 208
Navigation and Seamanship ..... 208
Oceanography ..... 208
Physical Geology ..... 207
Regional Field Studies in Geology ..... 208
Survey of Natural Disasters ..... 207
ECONOMICS (ECON) ..... 209
Principles of Economics - Micro/Macro ..... 209
EDUCATION (see Child Development) ..... 184
ENGINEERING (ENGR) ..... 210
Electric Circuits ..... 210
Engineering CAD. ..... 210
Engineering Drawing ..... 210
Statics ..... 210
Surveying ..... 210
ENGLISH (ENGL) ..... 210
American Literature from Civil War to the Present ..... 213
American Literature to the Civil War ..... 213
Basic Writing ..... 210
California Writers ..... 213
College Writing ..... 211, 212
Contemporary Literature ..... 213
Creative Writing ..... 211, 212
Critical Reasoning and Writing ..... 211
Critical Thinking and Writing about Literature ..... 211
Developmental Writing ..... 211
Dramatic Literature ..... 212
English Literature Since 1800 ..... 212
English Literature to 1800 ..... 212
Film Studies *NEW* ..... 212
Folklore and Mythology ..... 214
Humanities Independent Study ..... 215
Intermediate Creative Writing: Fiction ..... 215
Intermediate Creative Writing: Poetry ..... 215
Lange Arts Tutoring Practicum ..... 215
Language Structure ..... 212
Literature. ..... 211
Poetry ..... 212
Preparation for College Writing ..... 211
Science Fiction. ..... 214
Shakespeare ..... 213
Survey of African American Literature ..... 214
Survey of Asian American Literature ..... 215
Survey of Chicano/a Literature ..... 214
Survey of Children's Literature ..... 213
Survey of Native American Literature ..... 214
The Bible as Literature ..... 214
The Film: From 1950 to the Present ..... 212
The Film: From the Beginning to 1950 ..... 212
The Novel ..... 214
The Short Story ..... 212
Voices of America: Studies in Multicultural Literature . ..... 214
Women's Literature ..... 214
World Literature Since the Early Modern Period. ..... 213
World Literature through the Early Modern Period ..... 213
ENGLISH-AS-A-SECOND-LANGUAGE (ESL) ..... 215
Academic Preparation for American English Students ..... 216
Adv American English Pronunciation: Foreign Language Reduction ..... 216
Advanced Conversation: Academic Topics. ..... 216
American English Pronunciation ..... 215, 216
Basic Listening and Speaking ..... 215 ..... 215
omposition for Students of American English ..... 216
English for Non-Native Speakers of English ..... 215, 216
Fundamental Listening, Speaking, Reading, Writing ..... 216
Idiomatic Expressions for Students of ESL ..... 215
Intermediate Conversation ..... 216
Occupational English ..... 216

- ..... 217
Baja California Field Studies ..... 218
Desert Field Natural History ..... 218
Environmental Biology ..... 217
Geology and Marine Biology of the Channel Islands. ..... 218
Internship in Environmental Sciences/Newport Bay ..... 217
Marine Biology of Baja California ..... 218
Marine Vertebrate Ecology of the Channel Islands ..... 218
Natural History of California ..... 217
Regional Field Studies/Life Sciences. ..... 218
ENVIRONMENTAL TECHNOLOGY (ET) ..... 218
Hazardous Materials Management Applications ..... 219
Hazardous Waste Management Applications ..... 219
Heath Effects of Hazardous Materials ..... 219
Safety and Emergency Response ..... 219
Waste Stream Generation/Reduction/Treatment ..... 218
ETHNIC STUDIES (ETHS) ..... 219
African-American History ..... 220
African American Studies ..... 219
American Ethnic Studies ..... 219
Asian-American History ..... 220
Bilingual-Crossculturalism ..... 219
Chicano/Chicana History ..... 220
Chicano/Chicana Studies ..... 220
History of the Native Ament Study ..... 220
Multicultural Studies ..... 219
The Chicano-a/Latino-a in Contemporary Society .....
Apparel Analysis ..... 222
Apparel Production ..... 222
CAD for Apparel ..... 221
Careers in Fashion ..... 221
Clothing Construction Studio ..... 221
Clothing ..... 222
Creative Serging: The Overlock Machine ..... 221

22. 

Draping ..... 223-F-
FASHION CAREERS (FASH) ..... 221
Fashion Design ..... 223
. ..... 223
ashion Independent Study ..... 222Fashion Industry Internship
Fashion Marketing ..... ,
Fashion Promotion ..... 223
Field Studies in Fashion ..... 222
Flat Pattern Methods and Design ..... 222
ry of Costume
FOODS AND NUTRITION (FOOD) ..... 224
Cultural Aspects of Foods ..... 224
Food Management. ..... 224
Foods for Fitness ..... 224
Human Nutrition ..... 224
Nutrition and Food Experiences for Children ..... 224
Nutrition Concepts \& Food Prep for Vegetarians ..... 224
FRENCH (FREN) ..... 224
-G-
GEOGRAPHY (GEOG) ..... 225
Advanced GIS Applications ..... 226
Basic Crime Mapping ..... 226
Cultural Geography ..... 226
Desktop GIS ..... 226
Geographic Information Systems ..... 226
GIS Internship ..... 226
Global Environmental Problems ..... 226
Global Geography ..... 225
Physical Geography ..... 225
Urban Geography: Intro to the City ..... 226
GERMAN (GERM) ..... 227
HEALTH EDUCATION (HED) ..... 227
Health Science ..... 227
Internship in Health Education. ..... 227
-H-
HISTORY (HIST) ..... 228
Ancient Egypt ..... 228
Asia: Basic Heritage ..... 229
History Independent Study ..... 229
History of California and the Pacific Coast ..... 229
History of the Americas ..... 229
History of the United States ..... 229
Intro to the Middle East ..... 229
Modern China and Japan ..... 229
Survey of American History ..... 228
Survey of British History. ..... 228
Western Civilization ..... 228
Women in United States History ..... 229
World Civilizations ..... 228
HORTICULTURE (HORT) ..... 230
Applied Botany. ..... 231
Applied Entomology ..... 232
Arboriculture. ..... 232
Basic Landscape Plants ..... 230
Basic Turf Care. ..... 230
CAD Applications in Horticulture. ..... 233
Diseases and Pests of Ornamental Plants ..... 232
Greenhouse and Nursery Production ..... 232
Habitat Assessment and Restoration ..... 231
Home Pest Control. ..... 230
Integrated Pest Management ..... 232
Irrigation Controller Programming ..... 231
Irrigation Design. ..... 231
Irrigation Principles ..... 231
Landscape Construction ..... 232
Landscape Contracting ..... 232
Landscape Design ..... 232
Landscape Hydraulics ..... 233
Landscape Irrigation. ..... 231
Landscape Lighting ..... 230
Landscape Management. ..... 232
Landscape Pruning Practices ..... 230
Landscape Water Features. ..... 230
Landscaping for Dry Climates ..... 231
Pesticide Safety for Landscape Workers ..... 230
Plant Identification. ..... 231
Plant Nutrition ..... 231
Plant Pathology ..... 232
Plant Propagation ..... 232
Principles of Horticulture ..... 230
Soils ..... 231
Training Pest Control Professionals ..... 230
Turfgrass Management ..... 232
Volunteer Naturalist Training. ..... 231
HUMANITIES (HUM) ..... 233
Education: Tutoring Individuals and Small Groups ..... 233

## -I-

INTERIOR DESIGN (IDES). . . . . . . . . . . . . . . . . . . . . . . . 233
Applied Color and Design Theory . . . . . . . . . . . . . . . . . . . . . . . . . 234
Beginning Drafting for Interior Design. . . . . . . . . . . . . . . . . . . 233
Business and Professional Practice . . . . . . . . . . . . . . . . . . . . 234
Fundamentals of Interior Design. . . . . . . . . . . . . . . . . . . . . . 233
Fundamentals of Lighting . . . . . . . . . . . . . . . . . . . . . . . . . 234
History of Interior Architecture and Furnishings. . . . . . . . . . . . . . 234
Interior Design Careers . . . . . . . . . . . . . . . . . . . . . . . . . . 233
Interior Design Internship . . . . . . . . . . . . . . . . . . . . . . . . . 234
Interior Design Studio. . . . . . . . . . . . . . . . . . . . . . 233, 234, 235
Interior Illustration. 234
Interior Materials and Products . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 234
Kitchen and Bath Design. . . . . . . . . . . . . . . . . . . . . . . . . . 233
Medical/Health Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 234
Office Planning. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 234
Restaurant/Hotel Design . . . . . . . . . . . . . . . . . . . . . . . . . . 234
Space Planning . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 234
Studies in International Architecture \& Design . . . . . . . . . . . . . . 234
ITALIAN (ITAL) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 235
-J-
JAPANESE (JAPN) . . . . . . . . . . . . . . . . . . . . . . . . . . . 235
JOURNALISM (JOUR) . . . . . . . . . . . . . . . . . . . . . . . . . 236
Communications Seminar . . . . . . . . . . . . . . . . . . . . . . . . . 236
Feature Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 236
Internship in Journalism/Public Relations . . . . . . . . . . . . . . . . . . . 237
Journalism Independent Study . . . . . . . . . . . . . . . . . . . . . . 236
Magazine Production . . . . . . . . . . . . . . . . . . . . . . . . . . . 236
Multimedia Reporting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 236
Newspaper Management, Makeup and Editing . . . . . . . . . . . . . . 236
Newspaper Production. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 236
Photojournalism . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 236
Public Relations and Publicity . . . . . . . . . . . . . . . . . . . . . . . 236
Reporting and Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 236

## -L-

LIBRARY TECHNOLOGY (LIB)
Intro to Research . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 237
Research in the 21st Century . . . . . . . . . . . . . . . . . . . . . . . . . . 237
-M-
MACHINE TECHNOLOGY (MACH) . . . . . . . . . . . . . . . . . . . . 237
Advanced Topics in Machine Technology *NEW* . . . . . . . . . . . . . . 237
CNC Machine Set-Up and Operation. . . . . . . . . . . . . . . . . . . . 238
CNC Parts Programming . . . . . . . . . . . . . . . . . . . . . . . . 238
CNC Programming Using Mastercam . . . . . . . . . . . . . . . . 237, 238
CNC Programming Using SURFCAM . . . . . . . . . . . . . . . . . . . . . 238
CNC Wire EDM: Programming \& Operation . . . . . . . . . . . . . . . . 237
Machine Tools . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 238
Machining Skills Lab. . . . . . . . * . . . . . . . . . . . . . . . . . 237
Multiple Axis CNC Set and Operation *NEW* . . . . . . . . . . . . . 238
MARKETING MANAGEMENT (MKT) . . . . . . . . . . . . . . . . . . . 239
Current Issues in Marketing . . . . . . . . . . . . . . . . . . . . . . . . 239
Customer Service on the Internet . . . . . . . . . . . . . . . . . . . . . . . . 239
Internet Advertising . . . . . . . . . . . . . . . . . . . . . . . . . . . . 239
Internet Marketing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 239
Multicultural Markets in the U.S. . . . . . . . . . . . . . . . . . . . . . 239
Principles of Advertising. . . . . . . . . . . . . . . . . . . . . . . . . . 239
Principles of Selling . . . . . . . . . . . . . . . . . . . . . . . . . . . . 239
Small Business Management . . . . . . . . . . . . . . . . . . . . . . . 239
Small Business Promotions . . . . . . . . . . . . . . . . . . . . . . . . 239
MATHEMATICS (MATH) . . . . . . . . . . . . . . . . . . . . . . . . . 240
Additional Topics in Linear Algebra . . . . . . . . . . . . . . . . . . . . 242
Algebra. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 240
Basic Mathematics *NEW* . . . . . . . . . . . . . . . . . . . . . . . . 240
Calculus . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 241
Calculus for Business . . . . . . . . . . . . . . . . . . . . . . . . . . . 241
College Algebra . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 241
College Algebra for Business Calculus. . . . . . . . . . . . . . . . . . . 241
Discrete Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . . . 241
Graph Theory and Linear Algebra . . . . . . . . . . . . . . . . . . . . . . . . . 241
Introductory Probability and Statistics. . . . . . . . . . . . . . . . . . . 240
Liberal Arts Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . 240
Linear Algebra and Differential Equations . . . . . . . . . . . . . . . . . . . . 242
Mathematics for Future Elementary Teachers . . . . . . . . . . . . . . . 242
Mathematics Independent Study . . . . . . . . . . . . . . . . . . . . . 242

| Multivariable Calculus | 242 |
| :---: | :---: |
| Plane Geometry | 240 |
| Pre-Algebra | 40 |
| Trigonometry | 241 |
| METALLURGY (METL) | 242 |
| MICROBIOLOGY (MICR) | 242 |
| General Microbiology | 242 |
| Medical Microbiology | 242 |
| MUSIC (MUS) | 243 |
| Alternative Jazz LAB Ensemble | 249 |
| American Popular Music/Jazz Music Survey | 245 |
| Applied Music - Private Study | 247 |
| Band | 248 |
| Brass Class | 246, 248, 249 |
| Bravo Brass | 249 |
| BRAVO Song/Dance Ensemble | 250 |
| Chamber Singers | 250 |
| Collegiate Chorale | 246 |
| Community Band Experience | 243 |
| Community Band Studies | 243 |
| Concert Band | 249 |
| Concert Choir | 250 |
| Concert Hour | 245 |
| Counterpoint. | 247 |
| Electronic Music | 245, 250 |
| Fullerton College Master Chorale | 250 |
| Fullerton College Symphonic Winds. | 249 |
| Fullerton College Symphony . | 249 |
| Guitar | 246, 247, 248 |
| Harmony | 244 |
| History and Appreciation Practicum . | 243 |
| History of Rock Music . | 245 |
| Honors Creative Arts - Music | 246 |
| Instrumental Performance Practicum | 243 |
| Jazz Band | 249 |
| Jazz Guitar Ensemble | 249 |
| Jazz Guitar Reading Ensemble. | 248 |
| Jazz History - An Appreciation. | 245 |
| Jazz Improvisation - Instrumental | 246, 248 |
| Music Appreciation | 245 |
| Music Copying | 247 |
| Music Fundamentals | 244 |
| Music Independent Study | 250 |
| Music Lab | 244 |
| Music Notation Software | 243 |
| Music Reading. | 244 |
| Music Technology | 245 |
| Music Theory | 244 |
| Music Tour Practicum | 244 |
| Musical Theatre Production | 250 |
| Musical Theatre Techniques | 243 |
| Musicianship | 244, 247 |
| Opera | 245 |
| Opera Studies | 243 |
| Opera Theatre Workshop | 244 |
| Percussion Class | 246, 248, 249 |
| Percussion Drum Set | 244 |
| Percussion Practicum | 243 |
| Piano | 246, 248, 249 |
| Pop/Commercial Arranging/Composing | 247 |
| Pop/Commercial Music Theory | 247 |
| Pop/Commercial Musicianship | 247 |
| Recording Studio. | 245, 247 |
| Recording Techniques Workshop for Performers | 246 |
| Steel Drum Class | 244 |
| Steel Drum Ensemble | 248 |
| Strings | 246, 248, 249 |
| Survey of Music History . | 245 |
| The Music Business | 245 |
| The Teaching of Piano | 243 |
| Vocal Jazz Ensemble. | 250 |
| Vocal Styling and Improvisation | 246, 248 |
| Voice | 246, 247 |
| Women, Music and Society | 245 |
| Women's Chorale | 246 |
| Woodwind Class | 246, 248, 249 |

-0-
OFFICE TECHNOLOGY (OT) ..... 250
Adobe Illustrator, Basic ..... 251
Adobe PageMaker, Basic ..... 251
Business Career Success Skills ..... 251
Business Protocol and Ethics ..... 252
Business Resume Writing Skills ..... 251
Computer Concepts ..... 250
Creating Promotional Pieces. ..... 252
Current Issues in Office Technology ..... 252
HTML Skills, Basic. ..... 251
Internet Skills, Basic ..... 251
Introductions, Business Meetings, Networking \& Techno Etiquette ..... 252
Keyboarding ..... 251, 253
Microsoft Access, Basic ..... 251
Microsoft Excel Skills, Basic ..... 251
Microsoft Word Skills, Basic ..... 251
MS Word for Academic Papers ..... 252
Presentations and Web Pages ..... 252
Presenting a Professional Image for Business Travel ..... 252
Professional Business Entertaining and Dining ..... 252
Saying the Right Thing: Professional Ethics and Gift Giving ..... 252
WordPerfect Skills, Basic ..... 251
-P-
PARALEGAL STUDIES (PLEG) ..... 253
Bankruptcy Law and Procedure ..... 25
Civil Litigation ..... 253
Computer-Assisted Legal Research ..... 254
Computers in the Law Office ..... 253, 254
Contemporary Issues in the Law ..... 253
Contract Law/Procedure ..... 254
Criminal Law and Procedure. ..... 254
Discovery in the Electronic Age ..... 254
Elder Law ..... 255
Employment and Labor Law ..... 254
Entertainment and Sports Law. ..... 255
Family Law. ..... 25
Immigration Law. ..... 255
Intellectual Property ..... 255
Law Office Management ..... 255
Legal Research and Terminology ..... 253
Legal Writing ..... 25
Medical Records Review ..... 254
Paralegal Internship ..... 254
Personal Injury ..... 253
Probate, Wills and Trusts ..... 254
Real Property Law and Procedure ..... 254
Workers' Compensation Law ..... 254
PHILOSOPHY AND RELIGIOUS STUDIES (PHIL) ..... 255
Asian Religions ..... 256
Business and Professional Ethics ..... 256
Christianity ..... 256
Critical Thinking/Writing ..... 256
Ethics ..... 256
History of Philosophy: Ancient and Medieval ..... 256
History of Philosophy: Modern ..... 256
Judaism ..... 256
Logic and Critical Thinking ..... 256
Philosophy ..... 255
Social and Political Philosophy ..... 256
The American Religious Experience ..... 256
The Holocaust ..... 256
The Religion of Islam ..... 256
Women's Issues in Philosophy ..... 256
World Religions ..... 255
PHOTOGRAPHY (PHOT) ..... 257
Advanced Digital Photography *NEW* ..... 258
Basic Photography ..... 257
Communications Seminars ..... 258
Intermediate Photography ..... 257
Internship in Photography ..... 258
Photography from Analog to Digital ..... 257
Photojournalism ..... 258
Portrait Photography ..... 257
Professional Digital Photography *NEW* ..... 257
Professional Portrait Photography *NEW* ..... 257


PHYSICAL EDUCATION (PE) . . . . . . . . . . . . . . . . . . . . . . . . . 258
Adaptive Physical Education - Weight Training . . . . . . . . . . . . . 258
Alikido artic Conditioning for Seniors 258

Badminton . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 259,265
Baseball
Basketball
. 21262,264
Beach Volleyball
260
Body Building/Body Development and Weight Lifting . . . . . . . . . . . 262
Body Conditioning and Fitness . . . . . . . . . . . . . . . . . . . . . . 261
Bodyboarding
260
Bol Camp Workut
Cardio Kickboxing Aerobics . . . . . . . . . . . . . . . . . . . . . . . . 262
Cardiovascular Conditioning . . . . . . . . . . . . . . . . . . . . . . . . 259
Championship Putting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 263
Conditioning for Athletes - Strength . . . . . . . . . . . . . . . . 261
Conditioning for Athletes . . . . . . . . . . . . . . . . . . . . . . . . . 262
Cross-Country — Men and Women . . . . . . . . . . . . . . . . . . . . 264
. . . 259
Diet and Exercise for Athletes . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 263
Fencing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 259
First Aid, CPR, and Safety Education . . . . . . . . . . . . . . . . . . . 265
Fitness Training Lab (Circuit) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 261
Fitness Training . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 260
Football. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 263, 264
Gymnastics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 259
Inline Skating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 262
Intro to Physical Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 266
Kayaking . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 259
Kickboxing .
Lifesaving, Basic Rescue, CPR . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 262
265
Lifetime Fitness . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 262
Master SCUBA Diver, Advanced . . . . . . . . . . . . . . . . . . . . . . 265
Mountaineering/Rock climbing . . . . . . . . . . . . . . . . . . . . . . . . . . . . 260
Non-Impact Aerobics . . . . . . . . . . . . . . . . . . . . . . . . . . . 261
Outrigger Canoeing. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2599, 264
Personalized Fitness . . . . . . . . . . . . . . . . . . . . . . . . . . . . 261
Philosophy of Martial Arts . . . . . . . . . . . . . . . . . . . . . . . . . 266
aysical Education Independent Study
263
Physical Fitness as a Lifelong Concept . . . . . . . . . . . . . . . . .. 266
Pilates Mat I/II *NEW* . . . . . . . . . . . . . . . . . . . . . . . . . . 265
Pilates Reformer *NEW* . . . . . . . . . . . . . . . . . . . . . . . 265
Prevention and Care of Athletic Injuries . . . . . . . . . . . . . . . . . . . 265
Psycholog Actities.
, 267
Rychuoby or Spor.
260
Relaxation and Flexibility Fitness . . . . . . . . . . . . . . . . . . . . . . . . . . 261
Rhythmic Aerobic Exercise . . . . . . . . . . . . . . . . . . . . . . . . 261
Shao-lin Kung Fu . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 262
Skiing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 260
Snowboarding
262, 263, 264
Softball . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 262,264
Spinning
258
Spirit Squad . United States Society . . . . . . . . . . . . . . . . . . . . . . . . . 262
Sports Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . 266
Sports Officiating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 265
Step Aerobics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 260
Strength Training . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 261
Stress Management Through Physical Activity . . . . . . . . . . . . . . 265
Swim for Fitness. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 261
Swimming
260, 263, 264
Table Tennis259
Tai Chi Chuan ..... 262
Tennis ..... 260, 264
Track - Men/Women ..... 264
Triathlon ..... 260
Ultimate Frisbee ..... 260
Volleyball ..... 260, 261, 262, 264
Walking for Fitness ..... 259
Water Polo ..... 263, 264
Water Safety Instruction ..... 265
Weight Training/Weight Lifting ..... 263
Wresting ..... 263
Yoga ..... 258
PHYSICAL SCIENCES (PHSC) ..... 267
Physical Science Survey ..... 267
Physical Sciences for Teachers ..... 267
Physical Sciences Independent Study . ..... 267
Success in Physical Science ..... 267
Success in Science ..... 267
PHYSICS (PHYS) ..... 268
Elementary Physics ..... 268
General Physics ..... 268
Physics for the Life Sciences ..... 268
Physics with Calculus for the Life Sciences ..... 268
POLITICAL SCIENCE (POSC) ..... 269
American Government ..... 269
California Government \& Politics ..... 269
Capital Field Trip: Sacramento Seminar ..... 269
Comparative Political Systems ..... 269
Contemporary American Politics ..... 269
Government and Politics of the Middle East. ..... 269
International Relations ..... 270
Political Science Independent Study ..... 270
Political Theory ..... 269
Public Administration ..... 270
Public Law ..... 270
Study of Politics ..... 269
PORTUGUESE (PORT) ..... 270
PRINTING TECHNOLOGY (PRNT) ..... 270
Basic Printing Estimating ..... 272
Digital Printing ..... 270
Electronic and Conventional Pre-Press ..... 271, 272
Electronic Pre-Press ..... 271
Flexography ..... 271
Graphics ..... 271
Photo-Silk Screen ..... 271
Pre-Press ..... 271
Printing Skills Lab ..... 271
Printing ..... 271
Quick Printing and In-Plant Graphics ..... 270
Sheetfed Offset Presswork. ..... 271, 272
Survey of Graphic Communications ..... 270
PSYCHOLOGY (PSY) ..... 272
Abnormal Psychology ..... 273
Applied Psychology ..... 273
Child Psychology ..... 273
Cross-Cultural Psychology ..... 273
Developmental Psychology: Life Cycle ..... 273
Elementary Statistics in Behavioral Sciences ..... 273
General Psychology ..... 272
Human Sexuality ..... 273
Psychology Independent Study ..... 273, 274
Research Methods in Psychology ..... 273
Social Psychology ..... 274
The Human Services ..... 273
-R-
READING (READ) ..... 274
Basic Reading ..... 274
Basic Study Skills ..... 274
College Reading: Logical Analysis \& Evaluation ..... 274
College Study Skills ..... 274
Developmental Reading ..... 274
Preparation for College Reading ..... 274
Rapid Reading ..... 274
Vocabulary for Power Reading, Advanced. ..... 275
REAL ESTATE (RE) ..... 275
Advanced Topics in Real Estate ..... 276
Appraisal. ..... 275
Basic Appraisal Principles and Procedures ..... 276
Current Issues in Real Estate ..... 275
Legal Aspects of Real Estate ..... 275
Mortgage Loan Brokering in California ..... 276
Principles of Real Estate ..... 275
Property Management ..... 275
Real Estate Economics ..... 276
Real Estate Finance ..... 275
Real Estate Practice ..... 275
Residential Applications and Report Writing ..... 276
Residential Real Estate Appraisal ..... 276
Uniform Standards (USPAP) ..... 276
RECREATION (REC) ..... 276
Backpacking ..... 276
Camping and Our Bodyboarding Environment. ..... 277
Camping and Our Kayaking Environment ..... 277
Camping and Our Surfing Environment ..... 277
Leisure Services/Recreation ..... 276
Survival Arts ..... 276
The Zen of Camping ..... 276
Wilderness Survival ..... 276
RUSSIAN (RUSS) ..... 277
-S-
SOCIAL SCIENCES (SOSC) ..... 277
Intro to Probability and Statistics ..... 277
SOCIOLOGY (SOC) ..... 278
Criminology ..... 279
Drugs and Society ..... 279
Dying and Death . ..... 278
Gerontology ..... 278
Marriage and Family ..... 278
Social Problems ..... 278
Sociology Independent Study ..... 278, 279
Sociology of Women. ..... 278
SPANISH (SPAN) ..... 279
Children's Literature in Spanish ..... 280
Conversational Spanish ..... 280
Elementary Spanish ..... 279
Latin-American Literature ..... 280
Public Service Spanish ..... 279
Spanish for the Spanish Speaker ..... 280
Spanish History and Culture ..... 279
Spanish Independent Study ..... 280
Spanish Literature ..... 280
SPEECH (SPCH) ..... 280
Essentials of Argumentation ..... 281
Forensics ..... 281
Intercultural Communication. ..... 281
Interpersonal Communication ..... 281
Public Speaking ..... 280
Small Group Communication ..... 281
STUDENT SUPPORT SERVICES (STSV) ..... 281
Adaptive Computer Access: Word Processing ..... 281
Adaptive Computer: Learning Strategies. ..... 281
Applied Leadership ..... 282
EOPS Independent Study ..... 282
Helping Skills in Human Services ..... 282
Leadership Development ..... 281
Learning Assessment ..... 281
-T-
TECHNOLOGY-RELATED COURSES (TECH) ..... 282
Industrial Safety ..... 282
Manufacturing Processes ..... 282
Technical Mathematics. ..... 282
Technical Science ..... 282
Technology \& Engineering Independent Study ..... 282
THEATRE ARTS DRAMA (THEA) ..... 283
Acting for the Camera ..... 286
Acting Techniques ..... 284
Acting Workshop ..... 284
Experimental Theatre ..... 286
Honors Creative Arts - Theatre ..... 286
Improvisation for Television, Film and Theatre ..... 284
Lighting ..... 285
Modern Dramatic Literature ..... 283
Movement and Performance Skills for Musical Theatre ..... 283
Movement for Actors ..... 284
Multicultural Perspectives in American Theatre ..... 283
Musical Theatre History ..... 283
Musical Theatre Performance Techniques ..... 284
Oral Interpretation ..... 284
Performance Lab ..... 285
Principles of Acting ..... 284
Principles of Playwriting ..... 283
Properties: Design and Construction ..... 285
Resident Theatre Company ..... 285
Scene Painting ..... 285
Sound Design for the Theatre ..... 286
Sound Reinforcement Techniques ..... 286
Sound Technology ..... 285
Stage Crew Activity ..... 285
Stage Directing ..... 286
Stage Makeup ..... 285
Stagecraft ..... 285
State Management ..... 286
Summer Theatre Workshop ..... 285
Technical Theatre ..... 285
Theater Crafts Lab ..... 285
Theatre Appreciation ..... 283
Theatre Arts Independent Study ..... 286
Theatre Arts Seminar ..... 286
Theatre Management ..... 286
Theatre Practicum ..... 284
Theatrical City Tours: London ..... 28
Theatrical City Tours: New York ..... 283
Theatrical Costume Construction ..... 286
Theatrical Costuming ..... 285
Touring Theatre Productions: Rehearsal and Performance ..... 285
Voice for Actors, Beginning ..... 284
-V-
VIETNAMESE (VIET) ..... 286
-W-
WELDING (WELD) ..... 287
Fundamentals of Inert Gas Welding ..... 287
Industrial Welding Fundamentals ..... 287
Manual Arc Welding Fundamentals ..... 287
Semi-Automatic Welding Applications. ..... 287
Structural Welding Certification ..... 287
Welding Fabrication Technology ..... 287
Welding Inspection Technology ..... 287
Welding Skills Lab ..... 287
WELLNESS (WELL). ..... 288
Applied Exercise Physiology ..... 288
Exercise and Aging ..... 288
Fitness Assessment ..... 288
Kinesiology *NEW* ..... 289
Massage ..... 288
Massage and Bodywork Lab. ..... 288
Pathology: The Massage Connection ..... 288
Personal Training Internship ..... 288
Sports Massage ..... 288
Stress Management and Relaxation Training ..... 289
The Body-Mind Connection ..... 288


[^0]:    Fullerton College is accredited by the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (WASC), http://www.acswasc.org/index.htm, an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education and the California State Department of Education.

[^1]:    ** Program plan will depend on placement test results. This program could be adjusted. **

[^2]:    Required Courses (16 units)
    Units
    HORT 005 F Basic Landscape Plants I 3
    HORT 006 F Basic Landscape Plants II or 3
    HORT 160 F Plant Identification (Ornamental Trees)
    HORT 161 F Plant Ident. (Ornamental Shrubs) and
    HORT 153 F Landscape Irrigation
    HORT 165 F Landscape Management or
    HORT 200 F Landscape Design
    HORT 177 F Turf Grass Management

[^3]:    *Co-requisite of THEA 149 F Stage Crew Activity required
    **Prerequisite and co-requisite (Technical Theatre class) required

