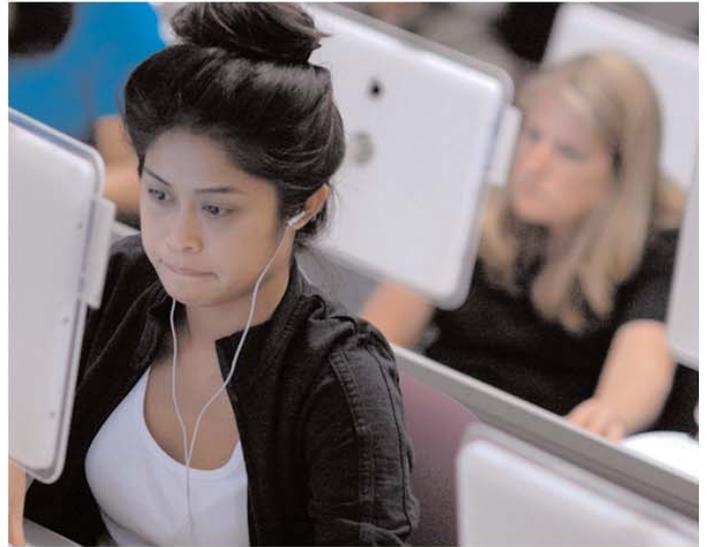




# Orange Coast College



2006-2007  
CATALOG



**Orange Coast College**

# CATALOG

**2006-2007**

2701 FAIRVIEW ROAD, P.O. Box 5005,  
COSTA MESA, CA 92628-5005

714-432-0202

[WWW.ORANGECOASTCOLLEGE.EDU](http://WWW.ORANGECOASTCOLLEGE.EDU)



# CONTENTS

5	Calendar
7	General Information
13	Student Services and Co-Curricular Activities
21	Policies and Regulations
25	Admission and Academic Information
41	Graduation Requirements
49	Transfer Information
61	Career and Certificate Programs
143	Course Descriptions
227	Faculty
237	Medical Advisors, Allied Health Programs
241	Emeritus
248	Index

Campus Map on inside back cover

Cover photos taken by Chauncey Bayes

## COLLEGE ADMINISTRATION

**Robert Dees,**  
President

**Douglas C. Bennett,**  
Director, Foundation

**James A. Carnett,**  
Director, Marketing and  
Community Relations

**Jess Craig,**  
Vice President, Student Services

**Nancy L. Kidder, Ph.D.,**  
Administrative Dean, Enrollment Services;  
International Center Programs

**Kate Mueller,**  
Dean, Student Services

**Kristin L. Clark, Director,**  
Admissions and Records

**Vacant,**  
Director, Student Health Services,  
Director, Children's Center

**Vacant,**  
Director, EOPS

**Melissa M. Moser,**  
Director, Financial Aid

**Melinda Nish,**  
Vice President, Instruction

**Paul Asim, Ph.D.,**  
Dean, Social and Behavioral Sciences

**Kevin T. Ballinger,**  
Dean, Career Education;  
Consumer and Health Sciences

**Barbara Bond,**  
Dean, Physical Education  
and Athletics

**Sylvia J. Impert,**  
Dean, Visual and Performing Arts

**Vacant,**  
Dean, Mathematics and Sciences

**Michael Mandelkern, Ph.D.,**  
Dean, Literature and Languages

**Robert H. Mendoza Jr., Ed.D.,**  
Dean, Instructional Programs

**Vacant,**  
Dean, Business and Computing

**Hue Pham, Ed.D.,**  
Dean, Counseling, Special Programs and  
Services

**Jorge R. Sanchez, Ph.D.,**  
Dean, Technology

**William B. Avery,**  
Director, Marine Programs

**Sheri Sterner,**  
Director, Library and Media Services;  
Institutional Research

**Richard T. Pagel,**  
Vice President, Administrative Services

**Ed Waterman,**  
Information Technology

**Janet B. Neth,**  
Director, Personnel Services

**Helen M. Rothgeb,**  
Director, Fiscal Services

**Mark Thissell,**  
Director, Maintenance and Operations

**Chancellor** Kenneth Yglesias, Ed.D.

### ***Coast Community College District Board of Trustees***

George E. Brown

Mary Hornbuckle

Walter G. Howald

Jerry Patterson

Armando R. Ruiz

Student Trustee

## FALL 2006 CALENDAR

August 28 .....	Semester Begins
September 4 .....	HOLIDAY — Labor Day
September 4 .....	Applications accepted for Spring 2007 Semester, including Winter Intersession
October 23.....	Beginning of second 8 week classes
November 10 .....	HOLIDAY — Veterans' Day
November 23-26 .....	HOLIDAY — Thanksgiving vacation
December 17 .....	Last day of Fall Semester
Dec. 18-Jan. 1 .....	Winter Break

## WINTER INTERSESSION

January 2.....	First day of Winter Intersession
January 15.....	HOLIDAY—Martin Luther King Jr. Day
January 28.....	Last day of Winter Intersession

## SPRING 2007 CALENDAR

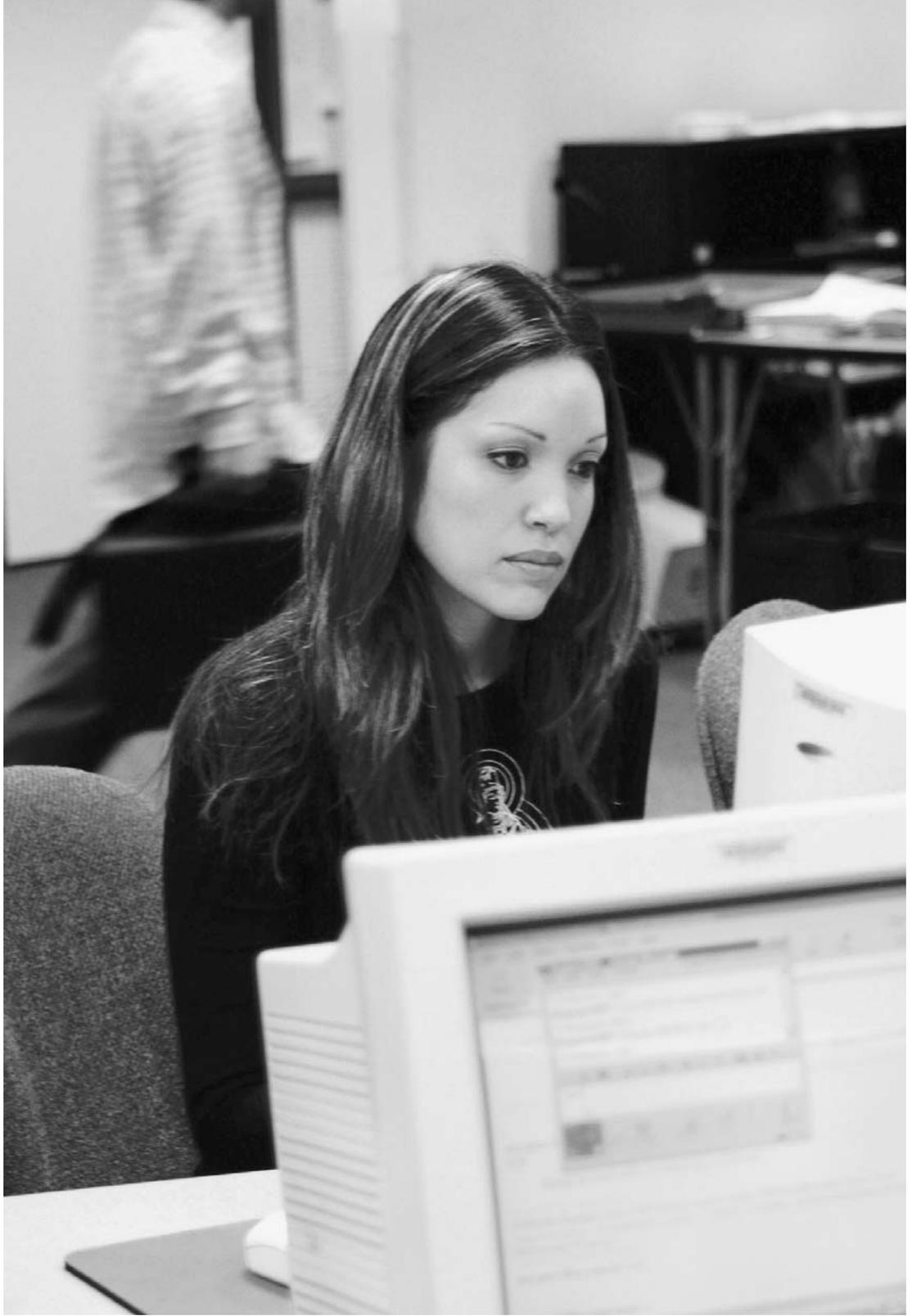
January 29.....	Semester Begins
January 29.....	Applications accepted for 2007 Summer Session and Fall Semester
February 16.....	HOLIDAY — Lincoln's Birthday
February 19.....	HOLIDAY — Washington's Birthday
March 26-April 1 .....	Spring Break
April 2.....	Beginning of second 8 week classes
May 27 .....	Last day of Spring Semester

All dates are subject to change without notice.

Deadlines for refund, fee cancellations, registration, and withdrawals are different for each course.

For specific course deadlines, please refer to one of the following:

- Dates to Remember- Distributed with registration receipt each semester
- Academic Calendar in the class schedule
- [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu) - Click on Deadlines and Dates to Remember on the Records page
- Contact the Student Records Office at (714) 432-5772
- If a holiday falls on Friday, then Saturday and Sunday classes will not meet. If a holiday falls on Monday, then Saturday and Sunday classes will meet.
- Final examinations are held during regular class meeting times during the last week of the semester.



# General Information

## MISSION STATEMENT

Orange Coast College enhances student learning by providing exemplary programs leading to the Associate in Arts degree and the Associate in Science degree, transfer to other institutions of higher education, occupational certificates and continuous workforce improvement, as well as quality instruction in basic skills and English as a Second Language. Additionally, the college is a partner in contributing to the economic vitality of the community and to serving the community's diverse needs for lifelong learning.

## INSTITUTIONAL COMMITMENT

Orange Coast College is committed to providing a unique learning community where freedom of thought and personal and intellectual growth is valued by all. As an outcome of their academic study, graduates of Orange Coast College possess proficiency in four core areas: Communication, Thinking Skills, Global Awareness, and Personal Development and Responsibility.

Administrators, faculty, and staff are committed to the development of students as individuals and as citizens of the world. We value teaching and learning relationships, support services, and co-curricular programs that contribute to meaningful personal growth in our students and to their quest for knowledge.

## About the College History and Location

Orange Coast College, Costa Mesa, California, was founded in 1947 on a 202-acre site which was granted to Orange Coast College by the federal government. The campus currently consists of 162 acres used for instructional facilities, athletic fields, and parking areas.

The Coast Community College District comprises three public community colleges: Orange Coast College, Golden West College and Coastline Community College. Each is a tax-supported community college.

## Accreditation and Approvals

Orange Coast College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, (3402 Mendocino Avenue, Santa Rosa, CA 95403; 707/569-9177), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U. S. Department of Education. The college and its instructional programs are also approved by the Board of Governors of the California Community Colleges and by the State Department of Education for training veterans.

In addition, Orange Coast College offers programs which are accredited or approved by recognized accrediting agencies: the American Culinary Federation Accrediting Commission, the American Speech-Language-Hearing Association (ASHA); the Commission on Dental Accreditation; The Commission on Accreditation/Approval for Dietetics Education of the American Dietetic Association; Commission on Accreditation of Allied Health Education Programs (CAAHEP); Joint Review Committee on Education in Radiologic Technology; Committee on Accreditation for Respiratory Care (CoARC); the California State Department of Health; the Federal Aviation Agency and the State of California—State and Consumer Services Agency; Speech-Language Pathology and Audiology Board.

## Course Accessibility

The policy of this district is that, unless specifically exempted by regulation, every course section, or class, 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 regulations contained in Article 2.5 (commencing with Section 55200) of subchapter 1 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations.

## Degrees and Certificates

By authorization of the Board of Governors of the California Community Colleges, Orange Coast College confers the Associate in Arts degree on students who complete sixty (60) units with a grade of "C" or better in prescribed courses.

Orange Coast College awards the Certificate of Achievement to students who successfully complete the required courses of a certificate program including a minimum of 18 units. Orange Coast College also grants the Certificate of Completion to students who complete a specially designed or intensive learning activity.

## Memberships and Affiliations

Orange Coast College maintains membership with the following organizations:

- Academic Senate for California Community Colleges
- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges
- American Association of Community Colleges
- Association of Collegiate Business Schools
- California Association of Community Colleges, Registrars & Admissions Officers
- California Community Colleges Chief Instructional Officers
- California Colleges for International Education

- California Community College for Staff Development
- Honors Transfer Council
- National Association for Foreign Student Affairs: Association of International Educators
- National Collegiate Honor's Council
- National Council for Marketing & Public Relations
- Southern California Intersegmental Articulation Council
- South Coast Higher Education Council
- Western Association of Veteran Education Specialists
- Western Regional Honors Council

## Objectives

Orange Coast College constantly strives to serve the best interests of its community.

Orange Coast College maintains instructional excellence by providing the following:

- Instructional opportunities so that students can fulfill their lower division requirements leading to baccalaureate and advanced degrees.
- Instructional opportunities so that students can develop positive attitudes while acquiring skills and knowledge for their chosen careers, for entry-level positions, for advancing within a career, or for changing careers.
- Lifetime access to general education and to educational opportunities for those who want more knowledge about our ever changing world.
- Opportunities to expand learning and living skills through programs that increase intellectual, occupational and physical development.
- Opportunities to resolve problems due to an inadequate education.
- Resources to develop the strongest selection of teaching and learning experiences for our community including classroom and laboratory instruction, library and reader services, independent study, field studies, telecommunications, outreach programs, computer-assisted learning, learning by experience and tutorial assistance.

Orange Coast College proudly welcomes everyone who seeks intellectual, cultural and personal enrichment.

Orange Coast College presents opportunities for individual and group awareness through counseling and guidance offered by academic and career counselors who evaluate skills and aptitudes. The college also offers credit through assessment of prior learning and by learning through experience and personal counseling.

Our college has diverse programs designed to identify and satisfy student needs, such as the following:

- Programs that support traditional instruction, which are developed in the library, the Media Center and the Tutorial Center.
- Health programs in the Student Health Center, the Sports Medicine Center and the Speech and Language Center.
- Programs for special groups which are developed in the Disabled Students' Center, the Extended Opportunities Programs and Services Office and in the Learning Center.
- Economic programs available in the Financial Aid Office, the Career Development Center and Placement Office and the Children's Center.
- Student government programs including the Associated Students of Orange Coast College, clubs and co-curricular activities.

Orange Coast College sanctions community service activities for professional and personal improvement, other educational opportunities and entertainment and recreational events.

Our college contracts educational services and programs which the school develops at the request of business and public agencies. These services and programs take place on campus, at work sites and other locations.

Orange Coast College has programs that support the quality of service offered to its community, which in turn supports the college administration, faculty and staff in their personal development.

## The Orange Coast College Foundation

The Orange Coast College Foundation serves as a community and financial support organization to help Orange Coast College achieve its mission. The goals of the Orange Coast College Foundation include providing financial support for the college, involvement opportunities for board and community members, advocacy to help the college meet its goals, and advisement to the college's administration.

The OCC Foundation accepts donations of cash, securities, real property, insurance and personal property from individuals, businesses and other foundations. The foundation strengthens the educational objectives of the college by providing funds for faculty development, student scholarships, library acquisitions, and capital improvements and repairs to the campus of Orange Coast College.

Members of the Orange Coast College Foundation Board of Directors are volunteers. They generally serve three year renewable terms. Members are appointed from the community and can include alumni, business leaders, community leaders, parents, donors, and members of the college's current and retired faculty and staff who are interested in supporting the missions of the college and the Foundation. For additional information on the Foundation, please call (714) 432-5126.

## Equal Opportunity Policy

Orange Coast College is committed to providing equal opportunities in its activities and in its educational programs. Therefore, neither an Orange Coast College student nor a Coast Community College District employee nor any applicant for enrollment or for employment shall be unlawfully denied the benefits of, or be unlawfully subjected to discrimination under any programs or activity on the basis of race, color, gender, sexual orientation, national origin, religion, age, disability, or marital and Vietnam-era status.

Orange Coast College's policies and procedures strengthen and guarantee equal opportunity. Specifically, the college does the following:

- Systematically reviews its policies and procedures to preclude the possibility of discrimination against women, minorities, disabled individuals and others.



- Makes every effort to provide leadership for the communities it serves, protect human rights, and assure equal opportunity.
- Maintains the policy that every course, course section, and class—wherever offered, shall be open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to Chapter II, Division 2, Part VI, Title 5 of the California Code of Regulations, commencing with Section 51820. This policy is maintained unless specifically exempted by statute.

The college Grievance Officer, is charged with ensuring that these policies and procedures are enforced and with investigating complaints about noncompliance.

## **Disabled Students' Rights**

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 prohibit discrimination on the basis of disability against persons in programs or activities receiving or benefiting from federal assistance. Thus, in post-secondary education settings, Section 504 mandates "reasonable accommodation" for adults with professionally documented physical or learning disabilities. Inquiries regarding the college's non-discrimination policy relative to Section 504 or the Americans with Disabilities Act should be directed to the 504/ADA Coordinator, at (714) 432-5042.

## **College Programs**

### ***Career Programs***

One of the primary missions of Orange Coast College is to help all students with career development.

To qualify for positions in their chosen fields many students require study in a career program for two years or less. The college cooperates with secondary schools to provide articulation of vocational programs that avoid duplication of occupational skills and knowledge, and builds on student's career competencies.

A variety of artistic, scientific, professional and technical programs are available for students. These programs, combining theory, practical training and experience, were established as a result of surveys of employment opportunities throughout the community. A program advisory committee, comprised of local employers and workers, helps plan and offers on-going advice and supervision for career programs. An extensive description of each program is listed in the section of this catalog entitled "Career and Certificate Programs."

A student who completes one of these programs may be able to transfer to a four-year college or university to complete a bachelor's degree. Employers who hire students from many of the career programs are provided guarantees that students possess the skills needed on the job. If students are found deficient by employers, they can return for additional training at no cost.

### ***College Transfer Programs***

Many students choose careers that require four or more years of college. Orange Coast College has a comprehensive transfer program that satisfies lower division requirements for most majors. A student, working with a counselor, may plan a two-year program at Orange Coast College then transfer to a college or university to complete a four-year degree.

Courses numbered 100 or higher are transferable to the California State University. A list of courses which transfer to the University of California is available in the Counseling Center and Transfer Center. These courses are also marked "UC" in the Courses section of this catalog. Counselors can help determine which courses transfer to other colleges and universities.

The Transfer Programs section of this catalog contains additional information about transfer.

### ***Counseling and Guidance***

The counseling program at Orange Coast College is in place to help students identify and clarify personal, career and educational goals. The intent is to help students choose options that will improve the quality of their lives.

The counseling process encourages the building of a strong self-concept by helping students identify their needs and motivations and by guiding them in learning and applying effective decision-making skills. Personal, career and academic choices are not viewed as separate and disconnected entities but as interrelated issues, the combination and interaction of which determine the present and future quality of each individual's life experience.

### ***Extended Education Programs***

Our Extended Education Department sponsors a variety of fee-based, not-for-credit, life-long learning programs. The department presents classes to meet community interest in areas that are considered valuable for our community members. These extended educational opportunities are considered important for OCC and the community it serves.

### ***Developmental Programs***

Many special programs are offered to students who are not prepared for the demands of college-level courses. We offer special programs and courses in developmental reading, vocabulary building, spelling, oral communication, basic mathematics and English as a Second Language.

## **Career Education**

As never before in its history, America needs people who are trained in artistic, scientific, professional and technical fields. Orange Coast College can provide that training.

Thousands of students enroll annually in OCC's highly acclaimed career programs. We offer more than 50 programs which lead to exciting, well-paying careers within two years or less.

Our comprehensive programs, which grant certificates of achievement, completion, and/or associate in science and associate in arts degrees, prepare students to become qualified employees as well as educated citizens. A number of programs offer transfer options to four-year colleges and universities. Our career courses are both professional and high tech. They are fully accredited and feature industry advisory committees which meet annually to ensure the course curriculum accurately reflects current industry standards.

OCC Career Education also maintains [www.coastcareers.com](http://www.coastcareers.com). This web site is designed to take students through a set of exercises that will help them discover their career interests, explore different careers and jobs, and decide on a career path. The Coast Careers web site then encourages the student to take action on their discoveries by providing ideas and "next steps" to attaining their goals.

Orange Coast College Career Education is committed to helping students define and realize their educational and career goals through providing opportunities for self-knowledge and excellence in training.

## Reserve Officers Training Corps

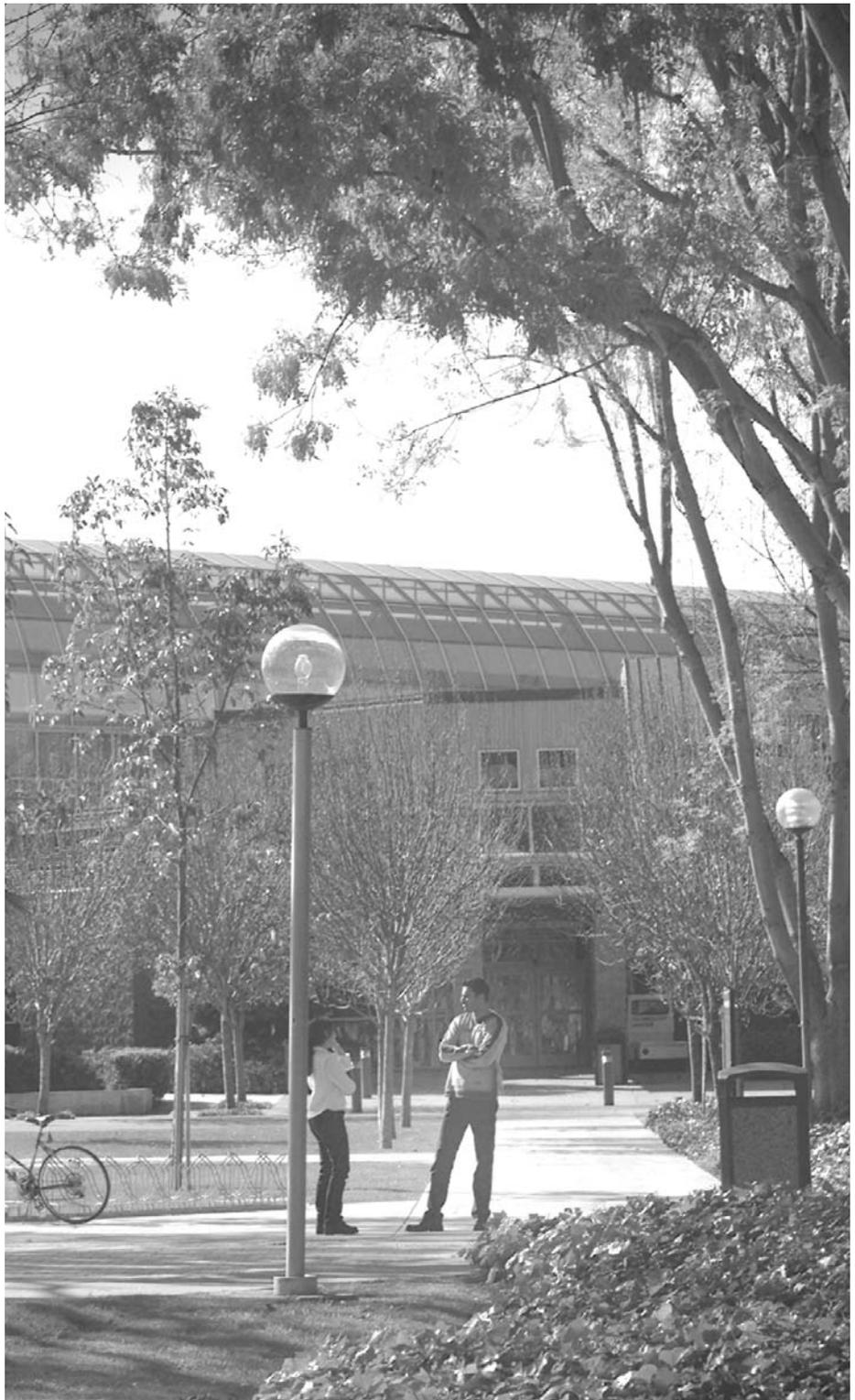
Orange Coast College students can participate in the Army and Air Force Reserve Officers Training Corps.

Army ROTC classes are conducted two hours each week at UCLA and CSULB. Two- and four-year programs lead to a commission as a second lieutenant in the Army or in the National Guard. Participants must be physically qualified full-time students at the undergraduate or graduate level. During their last two years, students receive a monthly tax-free stipend throughout the regular school year. Students with ROTC scholarships receive full tuition and have their required fees and books paid for. Veterans ordinarily qualify for advanced placement. For more Army ROTC information, call California State University, Long Beach, or University of California, Los Angeles or California State University, Fullerton.

Through arrangements with Loyola Marymount University (LMU) in west Los Angeles, student may participate in the Air Force Reserve Officer Training Corps (AFROTC) program. AFROTC offers a variety of two, three and four year scholarships, many of which pay the full cost of tuition, books, and fees. Successful completion of as little as four semesters of AFROTC academic classes and leadership laboratories can lead to a commission as a second lieutenant in the United States Air Force.

Classes consist of one hour of academics and two hours of laboratory for freshmen and sophomores and three hours of academics and two hours of laboratory for juniors and seniors. The academic hours earned can normally be counted as elective credit toward graduation. All AFROTC classes and laboratories are held on Fridays to better accommodate students commuting from other colleges and universities. Currently, LMU does not charge for the courses and offers cross-town students free parking while attending AFROTC activities. Additionally, AFROTC cadets under scholarship and all juniors and seniors receive a monthly tax-free stipend.

For more information, contact the Loyola Marymount University Department of Aerospace Studies (AFROTC) at (310) 338-2770.





# **Student Services & Co-Curricular Programs**

The primary mission of all educational institutions is learning. Orange Coast College recognizes that there are many activities and programs, outside of the classroom which enhance the learning process. Consequently, numerous student services have been established to help students move toward the attainment of their goals.

Students at Orange Coast College come from a diversity of backgrounds, ages, and lifestyles. The personal circumstances of many often include financial, physical and/or learning constraints that make attending college difficult. The variety and comprehensive nature of student services at Orange Coast College is intended to support a multitude of concerns for a large student population. All students are encouraged to explore the services available. The OCC web site provides valuable information for all students.

Memorable college experiences often include more than classroom instruction. To this end student activities and co-curricular programs are an integral part of Orange Coast College. These activities expand learning and living skills. The Student Services Staff and the Associated Students coordinate these programs. Examples of activities offered throughout the year are lecture series, Awareness Days, clubs, Coast Days, athletics, forensics, leadership opportunities and many more.

A current schedule of student activities is available at [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu).

## Adapted P.E. Program

Adapted Physical Education classes are designed for people with physical disabilities who can benefit from personalized exercise programs. A variety of courses are offered for improvement in strength, flexibility, and cardiovascular endurance, in addition to courses in Bowling, Aquatics and Exercises for Persons with Neck & Back Problems. Students must register with the Disabled Students Center and complete a necessary medical verification form prior to participation. For more information, phone (714) 432-5528.

## OCC Alumni and Friends Association

The reputation of every distinguished college grows as a result of the benefits it bestows on its students, faculty and staff. The Orange Coast College Alumni & Friends Association enables our college not only to maintain its distinctive standing among community colleges but also to strengthen that standing by preserving close ties with all former OCC students.

Any student who has taken one or more classes at Orange Coast College is considered an alumnus. Voluntary membership in the Alumni & Friends Association is available for an annual fee of \$20, or \$25 for couples, Lifetime membership is available for \$150, or \$200 for couples.

Orange Coast College Alumni & Friends Association is a membership-based organization that relies on its members to support its programs and activities. Membership in the Alumni & Friends Association entitles you to a membership card, library privileges, Job Placement Center resources, an alumni decal, discount tickets to campus performing arts events, invitations to alumni events, opportunities to meet former classmates, and alumni newsletter "Post Coaster."

For more information, phone (714) 432-5707 or email [jcleveg@occ.cccd.edu](mailto:jcleveg@occ.cccd.edu).



## Assessment Center

The Assessment Center, located in the Special Services Building, administers aptitude, interest, and personality tests to students who have a counselor's referral. It also administers the English and mathematics placement tests and the English as a Second Language program tests for students who are not native speakers of English.

Applications are available for SAT and TOEFL tests. For more information, phone (714) 432-5789.

## The Associated Students

The Associated Students are responsible for student government and participation in college planning, policy-making, and governance. They manage a large college-life program that includes a wide variety of clubs, social activities, and informal learning experiences. They also oversee a large budget to insure that many needs of students are met on campus.

Within the ASOCC students may choose a variety of leadership experiences such as enrolling in Leadership Students 150AD and Leadership Studies 140, serving as a club member or officer,

participating in programs and activities, and working on fiscal related issues.

We invite you to participate in our many programs and to become involved as a student leader. For more information please stop by the ASOCC office located in the Student Center.

Jurisdiction of the Associated Students of Orange Coast College is established in the Manual of Board Policies and Administrative Procedures of the Coast Community College District. For more information, phone (714) 432-5730.

## Athletics

OCC has one of the best Athletic programs in the state.

The Pirates field twelve men's athletic teams and twelve women's teams. Men's sports include baseball, basketball, crew, cross country, football, golf, soccer, swimming and diving, tennis, track and field, volleyball, and water polo. Women's sports include badminton, basketball, crew, cross country, soccer, softball, swimming and diving, tennis, track and field, volleyball and water polo. Cheerleading is a co-ed sport.

## Intercollegiate Athletics

Orange Coast College participates as a member of the Orange Empire Conference for most of its sports sponsored by the Community College League of California - Commission on Athletics. The Orange Empire Conference includes the following schools: Orange Coast, Cypress, Santa Ana, Riverside, Saddleback, Fullerton, Golden West, Irvine Valley and Santiago Canyon.

For football, Orange Coast College is a member of the Mission Conference which includes the following schools: Orange Coast, Palomar, Pasadena, Santa Ana, Riverside, Saddleback, Golden West, Long Beach, Mt. San Antonio, Cerritos, El Camino, Fullerton and Palomar.

## Internship Academy

The Internship Academy at Orange Coast College offers students the opportunity to attend college classes and earn college credit for concurrent learning on the job. The program is designed to meet the demands of the students and employers for internship experience and is "compliant" or "in compliance" with Title 5 regulations for accredited field experience. Together, the employment experience and educational aspects enable the student to acquire the knowledge, skills, and attitudes necessary to enter and progress in a chosen career.

The Internship Academy assists students in making the transition from school to work by providing hands-on, "real world" learning experiences, and practical application of classroom theory. The Academy delivers career related field experience to students interested in or planning to enter a specific career field related to their education. The Academy experience is a compilation of career exploration, training related field experience, and clinical fieldwork. For information: 714-432-5628 ext. 2 or visit <http://internship.orangecoastcollege.edu>.

## Non-Conference Athletics (\*)

The men's and women's crew compete in individual sports associations.

Orange Coast College is the only community college in California to offer competitive rowing. OCC crew is a member of the Pacific Coast Rowing Association including the Western Intercollegiate Rowing Association and the PAC-10. Other colleges competing in this association include: CSU Long Beach, Loyola Marymount, CSU Sacramento, St. Mary's College, CSU San Diego, Santa Clara University, UC Irvine, UC Davis, UC San Diego, UC Santa Barbara, UC San Diego, Stanford University, UC Berkeley, University of Washington, Oregon State University, UCLA, USC and Washington State University.

## The Children's Center

The Harry and Grace Steele Children's Center is located on Merrimac Way, just west of Fairview Road. Comprehensive child development services are available to student parents enrolled at OCC, faculty/staff and the community.

The California State Department of Education, the Associated Students of Orange Coast College and parent fees fund the Children's Center. The Children's Center serves children ages 6 months through 6 years throughout the year. School age children (6 - 12 years of age) are offered a full day recreation program during the summer semester only.

The hours of operation are:

### DAYTIME

Monday-Friday: 7:30am-5pm  
(6 months - 2 1/2 years of age)

Monday - Thursday: 7:30am-6pm  
Friday: 7:30am-5:00pm  
(2 1/2 - 6 years of age)

Specific summer semester hours will be posted each year.

Student-parents must pay the college service charge before registering their children. Subsidized child-care fees are set by the State Department of Education. Subsidized child development services are available for those who qualify under the Office of Child Development

Guidelines. Full cost openings are also available for students, faculty, staff and the community. For more information, phone (714) 432-5569.

## Counseling Services

### Counseling Appointments

Appointments are available Monday through Thursday from 8 a.m. to 6:30 p.m. and Friday from 8 a.m. to 2 p.m. Appointments serve the needs of students seeking academic, career and/or personal counseling and may be made in person at the Counseling counter in the Counseling Building or by phone, (714) 432-5078. For further counseling information call (714) 432-5700.

### Resource Desk

A resource desk is located in the Counseling Center and is staffed by a credentialed counselor during most day and evening hours. The resource counselor cannot respond to questions that require student records, but is otherwise available to provide information and assistance. You may come in person to the resource desk, or phone (714) 432-5699.

### Career Library

A full service career library is located in the Counseling Center. Assistance is available Monday through Thursday from 8 a.m. to 6:30 p.m. and Friday from 8 a.m. to 2 p.m.

### Career Lab

The career lab offers students access to a variety of computerized guidance programs, as well as audio and video tapes for listening and viewing. Hours are posted and a technician is available to offer assistance.

### Re-Entry Center

The Re-Entry Center provides individual and group counseling, workshops and special programs designed for students who have been out of school for one or more years. Appointments may be made in person or by phone, (714) 432-5162.

## **Transfer Center**

The Transfer Center provides information and assistance to students who are preparing to transfer to four-year colleges and universities. The center provides information on transfer programs, general education requirements and schedules appointments with representatives from four-year colleges and universities. Applications for admission to CSU and UC are available in the center. The center also sponsors a "Transfer Day" in the fall semester with representatives on campus from more than forty colleges and universities from throughout California. Transfer planning workshops are offered throughout the academic year. The Transfer Center is located in the Counseling Annex, between the Social Science classroom building and the Computing Center. For more information, phone (714) 432-5894.

## **Workshops**

Workshops, offered on an on-going basis, focus on topics of interest to both new and returning students. Workshop schedules are available in the Counseling Center.

## **Instruction**

The Counseling Division provides instruction in career and personal development, offering a variety of credit courses that support the developmental needs of both new and returning students. Counseling courses are offered both day and evening and are articulated for transfer the same as courses offered in other divisions. Courses are listed under "Counseling" in the college catalog and class schedule.

## **Matriculation Services**

Counseling-related components of matriculation are orientation, counseling/advising and follow-up of student progress. Programs are in place to respond to issues in these areas. Matriculation is coordinated through the Counseling Center.

## **Outreach**

Outreach consists of a variety of liaison activities with area high schools, including participation in college nights, classroom presentations and meetings with counseling and administrative

personnel. Outreach counselors work closely with Assessment Center personnel, the director of the Transfer Center and the coordinator of matriculation. For information about Outreach activities, phone (714) 432-5197.

## **Cumulative Records**

The students' cumulative records are developed and maintained in the Counseling Center. Counselors refer to these records in preparation for and during student appointments. Students, through a counselor, may also access their own cumulative records.

## **Petition Processing**

A petition is a request for special action and is processed through the Counseling Center. Petitions for Credit by Examination, Waiver of Requirements, Excessive Units and Academic Renewal are available in the Counseling Center.

## **Disabled Students' Center**

The Disabled Students' Center (DSC) provides support services to students with disabilities in an effort to ensure equal opportunity and participation at the college.

To receive services from the DSC, each student is responsible for the following:

- **Verification of Disability:** Submit verification of disability by a physician or other qualified professional.
- **Personal Care:** Each student is responsible for taking care of personal bodily needs, such as feeding and restroom care and, if necessary, providing in a personal attendant while on campus, including the classroom.
- **Seizure Policy:** Because of the college's concern for the well-being of all students, OCC has a policy governing a student who has a seizure on campus. When a physician indicates that seizures possibly endanger the student or others, the student may be denied continued enrollment. This may range from a particular class deemed hazardous to exclusion from campus. Reinstatement may occur when there is evidence that seizures are controlled. For more information, contact the Administrative Dean, Enrollment Services.

Specialized academic and vocational counseling is available through the DSC as well as specialized equipment, disability resource information and referrals. Assistance is also available for registration, test proctoring, tutoring, note takers, campus orientation and readers (based on the specific disability).

Only those students with a DMV plate or placard may park in designated blue curbed areas in all campus lots free of charge. All other disabled students must purchase a campus parking permit and use student parking spaces.

The Disabled Students' Center is located in the Special Services Building. Hours are 8am to 5pm, Monday through Friday. Phone 432-5807 or 432-5604 (TDD).

## **Disabled Students' High Tech Center**

The High Tech Center is specifically designed for students with disabilities at Orange Coast College. Its primary purpose is to allow students with disabilities to use computers through various adaptives. The facility is located in the Special Services Building. Our IBM PCs and Macintosh computers are equipped with both adapted computer software and major computer programs that can be combined to accommodate and assist students with their schoolwork and educational goals. Software packages include word processing, spreadsheets and accounting programs.

## **Extended Opportunity Programs and Services (EOPS)**

EOPS is a state-funded comprehensive support system that assists low-income/academically disadvantaged students. The goal of the program is to help students meet their educational objectives. Services include academic and personal counseling and/or assistance, career planning and transfer information, book grants and academic tutoring.

To determine eligibility, the student should visit the EOPS office located in Counseling and Admissions 114. For more information, phone (714) 432-5817.

## Financial Aid

Financial aid is money provided to college students in a variety of forms to help pay for the cost of a college education. The purpose of financial aid is not limited to tuition and college fee costs, but can be applied to basic costs of a student who is attending college such as room & board, transportation, and miscellaneous personal necessities. Financial aid is generally provided to assist with the costs of going to college and is not intended to relieve or replace a student's or parent's ability to pay a portion of or all of that cost.

Student financial aid comes from several sources— the federal and state governments, lending institutions and college specific programs funded by the colleges' own institutional resources. Provided below are the types of financial aid programs that are available through the Orange Coast College Financial Aid Office.

### Federal Programs

Apply for all federal programs at [www.fafsa.ed.gov](http://www.fafsa.ed.gov)

- GRANTS (Money awarded that is not repaid)
  - The Federal Pell Grant
  - The Supplemental Educational Opportunity Grant (SEOG)
- LOANS (Money which the student must repay)
  - The Federal Family Educational Loan (FFEL)
  - The Carl D. Perkins Student Loan
- JOBS (Money which the student must earn)
  - Federal Work Study Program (FWS)

### State of California Programs

- CAL GRANT B AND C (Money awarded that is not repaid)
- Board of Governors Fee Waiver (BOGW)

(The unit enrollment fee is paid. The student is responsible for the college service charge, material fees, parking fees, Health Fee and any other fees associated with a course.) Unit enrollment fee is currently \$26/unit. These fees are subject to change.

The Financial Aid Office is here to assist you with the financial aid process. Our office hours are:

Monday-Thursday: 8:00 a.m. -6:00 p.m.

Friday: 8:00 a.m. - 1 p.m.



For more information, please contact us at (714) 432-5508 or through our web site [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu).

## CARE

*Cooperative Agencies Resources for Education*

CARE is an additional support program for EOPS students who meet the following qualifications:

- a. Be 18 years of age or older
- b. Be a single parent of a child or children under 14 years of age
- c. Receive AFDC/TANF/CalWORKs

Support services for CARE students include Book Grants, Material Fees, OCC Parking Permits, Bus Passes, Prepaid Gas Cards, School Supplies, Child Care Assistance, Tutoring and Counseling and Educational Support.

Please call (714)432-5817 or visit the EOPS Office, Counseling and Admissions 113.

## Housing

The International Center is responsible for housing information and services and seeks to provide the widest range of housing options for all students. Students may request an annually updated apartment listing for the surrounding community. All students have access to a housing board, on which students and the community may advertise their housing offer and housing needs. The housing board, which is on an outdoor display case located on the South wall of the Admissions and Counseling building is updated daily. Advertising on the board is free of charge and the listing can also be viewed on the International Center's web site at: [http://www.orangecoastcollege.edu/prospective\\_student/international\\_students/](http://www.orangecoastcollege.edu/prospective_student/international_students/).

The Homestay program is a housing option for international students. Through this program, students are put in contact with interested host families in the area. The goal of the program is to provide both guest and host with the opportunity to learn about each others country and culture, see one's own country in a new light and make new friends. For further information, contact the International Center at (714) 432-5940 or visit the International Center.

## International I.D.

The International Center is listed as an issuing office for International I.D. Cards. The Center issues the International Teacher Identity Cards (ITIC), the International Student I.D. Cards (ISIC), and the International Youth Travel Cards (IYTC). These cards provide access to special discounts and benefits while traveling internationally. For pricing information and eligibility requirements, contact the International Center at (714) 432-5940.

## Job Placement Center

The Job Placement Center provides a connection between employers and Orange Coast College students. We assist students in their job search by providing hundreds of job listings from local employers that include temporary or permanent part-time, full-time and internship opportunities. Workshops are provided to improve resume writing skills and interviewing techniques. Books dealing with job preparation and search skills are available for check out, and computers are accessible to assist with your job search. Placement Center personnel are also available to review your resume personally, or to discuss your particular job search needs.

For more information, visit our office located next to the Financial Aid Office in Building D or call (714) 432-5576.

Our office hours are:

Mon.- Thurs. 9 a.m. - 3 p.m..

Friday: 9 a.m. - 2 p.m.

## The Learning Center

The Learning Center is located in the Special Services Building and provides support services for learning disabled students in regular classes, as well as offers individual instruction in reading, writing, spelling and arithmetic. The Learning Center staff evaluates the learning difficulties of each student and then develops a program which includes a number of teaching techniques and materials. A student may earn one to three units of credit each semester by enrolling in Learning Skills N001AD. The Learning Center's phone number is (714) 432-5535.

## Library Services

Comprised of over 100,000 titles of books, periodicals, videos, and audiocassettes, the Orange Coast College Library supports and enriches the quality of the educational program. Temporarily located at the north end of the Adams parking lot, the library is open during fall and spring semesters on Monday through Thursday from 8:00 a.m. to 9:00 p.m., and on Friday from 8:00 a.m. to 3:00 p.m.. The hours vary during the summer and winter intersessions. We are closed all school holidays. Remote access to the library's on-line catalog and full-text databases is available on our website.

Our circulating books may be checked out for a three week period and renewed once if not on hold. Fines are .25 cents per day per book up to a maximum of \$10.00. Reserve material will be found at the circulation desk and may be checked out for a limited time, usually two hours. Materials not found in our library may, in some cases, be requested by students from libraries in the Cal-West Consortium and by faculty from libraries throughout the United States. Inquire at the reference desk.

Our media/computer lab department provides instructional videos, audiocassettes, Coastline College telecourses, language tapes, and a computer lab with access to the Internet and software for word processing, graphics, and other programs. Media reserves may be viewed in the library or checked out overnight.

Our reference librarians are here to teach and guide you in using the numerous print and computer based indexes provided by the library. The library offers a transferable one-unit class (ENG 108, Introduction to Library Resources) designed to develop research skills.

## Lost and Found

Lost and Found is located in the Student Center at the Information Desk. The desk is staffed as much as possible between the following hours: 8am to 6pm Monday through Thursday and 8am - 2pm on Friday. It can be reached by calling (714) 432-0202 ext. 26454 or ext. 26452.

## Recycling Center

The Associated Students of Orange Coast College sponsors an on-campus Recycling Center located on Adams Avenue, between Harbor Boulevard and Fairview Road. The center accepts donated materials such as newspapers, magazines, pamphlets, office paper, computer paper, glass, aluminum and plastic beverage containers.

The center will pay the current market price for "CA Redemptive Value" containers of glass, plastic and aluminum Monday through Saturday, 9 a.m. to 5 p.m. Profits from the center go to scholarships for OCC students.

## Scholarships

Students who complete OCC scholarship applications will be considered for a wide variety of scholarships awarded through the generosity of the citizens and civic groups in the Coast Community College District.

Application requirements vary, depending on the scholarship programs for which the student applies. For further information, visit the Scholarship Office in the Administration Building or visit our web site: [www.orangecoastcollege.edu/student\\_services/scholarship\\_office/](http://www.orangecoastcollege.edu/student_services/scholarship_office/). For more information, phone (714) 432-5645.

## Student Health Service

The Orange Coast College Student Health Service was initiated by students for students unable to obtain affordable health care. It is financed by a student health fee of \$14. Students must be currently enrolled and attend classes to use the service. Please bring your student ID card when visiting the health center.

The Student Health Center is located next to the gymnasium on Fairview Road. It is open when classes are in session at the following times: 8 a.m. to 8:30 p.m., Monday and Thursday, 8 am - 6:30 Tuesday and Wednesday, and 9 a.m. to 1 p.m. on Friday. The phone number is (714) 432-5808.

Registered nurses consult with students concerning their health needs and schedule appointments with physicians and members of the mental health team. Physicians diagnose and treat acute short-term health problems. The mental



health team provides brief individual and group counseling. Referrals to community resources are given for long-term treatment.

Students are covered by accident insurance for injuries that occur on campus or at a college-sponsored event. This coverage is secondary to any primary coverage by which students are covered and is subject to certain exclusions and limitations. An injury must be reported immediately to the appropriate instructor and to the Student Health Center if claim benefits are to be paid. All claims have a \$50 deductible.

## Student Center Lounge

The Student Center Lounge is open for public use Monday through Thursday, 8:00 a.m. - 6:00 p.m. and Friday, 8:00 a.m. - 2:00 p.m. It serves as a study area as well as a place to relax and often serves as the location for speakers, workshops, and other special events. For information call (714) 432-5730.

## Tutorial Center

Trained tutors assist students in improving study skills as well as course content areas. Students may receive free tutoring. OCC's Tutorial Center is located in the west wing of the Special Services Building.

Please call for current hours.

For more information, phone (714) 432-5559 or 432-5538.

## Vocational Rehabilitation Services

Students having physical, emotional, or other disabilities may be eligible for State Department of Rehabilitation services if their disabilities affect their vocations. These services include vocational counseling and guidance, reim-

bursed training and job placement. Under certain circumstances, students may also qualify for assistance with medical needs, living expenses and transportation.

Interested students should visit or write the State Department of Rehabilitation Office, 10540 Talbert Ave., #250, W Building, Fountain Valley, California 92708. The phone number is (714) 593-5678 or you can visit their website at [www.rehab.cahwnet.gov](http://www.rehab.cahwnet.gov).



# **POLICIES and REGULATIONS**

*In accordance with requirements of DVB Circular 20-76-84, Appendix P, this is to certify this school catalog is true and correct in policy at the time of printing.*

## Academic Honesty

Orange Coast College has the responsibility to ensure that grades assigned are indicative of the knowledge and skill level of each student. Acts of academic dishonesty make it impossible to fulfill this responsibility and weaken our society. Faculty have a responsibility to ensure that academic honesty is maintained in their classroom. Students share that responsibility and are expected to refrain from all acts of academic dishonesty. Procedures for dealing with any violation of academic honesty will be followed. Additionally, the Student Code of Conduct and Disciplinary Procedure shall be applied to incidents of academic dishonesty. A disciplinary "F" grade may be assigned for violation of the Academic Honesty Policy, consistent with the District Student Code of Conduct.

## Course Accessibility

The policy of this district is that, unless specifically exempted by regulation, every course section, or class, 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 regulations contained in Article 2.5 (commencing with Section 55200) of subchapter 1 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations.

## Disruptive Behavior

A student who is uncontrollably disruptive of the educational process or a danger to her- or himself or students and staff may be subject to dismissal from the college. In lieu of dismissal, such students may be required to provide an attendant when on campus or at any college-sponsored event. Cost of providing an attendant shall be the responsibility of the student. The decision to dismiss or require the presence of an attendant shall be the responsibility of the College President or designee. The student shall have the right to appeal any decision to the Vice Chancellor of Human

Resources of the Coast Community College District. No decision shall be made without providing the student with adequate opportunity to provide evidence in his or her behalf.

## Family Rights and Privacy Act of 1974 Policy

Orange Coast College may release student directory information upon request, provided such release is approved by the college president or a designee. Students may request in writing to the college president that directory information not be released. The president or a designee may limit or deny the release of specific categories of directory information based upon a determination of the best interests of the student.

Directory information is defined to mean one or more of the following: student's name, city of residence, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous public or private school attended.

Any currently enrolled or former students shall have access to any and all of their records on file at the college. Such access shall be granted within 15 working days of a written request and shall be subject to procedures established by the Administrative Dean of Enrollment Services for academic records, Dean of Counseling Services for counseling files, Vice President of Enrollment Services.

Students, by written request to the above administrator, may challenge the content of their records pursuant to Education Code section 76232. Such challenges will be processed according to procedures established by those responsible administrators.

## Privacy of and Access to Student Records

The Information Practices Act of 1977, California Civil Code, Sections 1798 et.seq., guarantee certain rights:

The Right to Privacy. Only information about you that is relevant and necessary to carry out the purpose of the college will be collected. This infor-

mation will be used only in the administration of specific college programs.

The Right to Access. You may request access to any records about you that are maintained by the college. The college shall promptly let you or your chosen representative inspect or shall provide you copies of any document or item of information in your case record, within 15 working days of a written request. In a few cases, medical or psychological information will be released only to an appropriate licensed professional chosen by the student.

Protection Against Rediscovery. All persons who are allowed access to your records are prohibited from disclosing this information to anyone else without your specific, informed, written consent. There are specific instances where information may be released without your informed, written consent, such as in the case of a medical emergency.

Student Identification Number. Students are not required to provide their social security number except to receive financial aid and the 1098T Hope Tax Credit Form. However social security numbers are helpful in identifying student records upon transfer to other institutions. All students are strongly encouraged to select a personal identification number to protect electronic access to their records.

Records Holds. Per Title V, a student's records may not be released due to outstanding fee obligations.

## Service Complaint

Orange Coast College and its employees make every effort to serve students and non-students courteously and efficiently, including acting in accordance with college policies and state and federal laws. Individuals dissatisfied with a campus policy or the conduct of a college employee can bring a complaint, a written or verbal notice of dissatisfaction, to the attention of the appropriate faculty, staff, or administrator at any time. If a problem is found to exist, any needed remedies will be put in place as soon as possible. Before filing a complaint, individuals should make every effort to resolve their dissatisfaction informally with the college personnel immediately involved. If addressing an issue informally does not lead to satisfactory

resolution, the individual may register a complaint with the appropriate supervisor or administrator.

## Grade Grievance

Recognizing that trusting, positive relationships between students and instructors is vital to successful learning and teaching, the Grade Grievance policy at Orange Coast College is intended to provide all parties with due process in the event of a disagreement or misunderstanding regarding classroom policies or grades. Students are encouraged to discuss informally any concerns they may have about class policies and course grades with their instructors before requesting more formal resolution of an issue. Concerns about grades should be addressed as soon as possible in order to ensure availability of student and instructor records and to permit time for a formal appeal should one be necessary. Any formal efforts to resolve a grade dispute must occur within one year after the student has received the grade.

If dissatisfied after discussing his or her concerns informally with the course instructor, a student may ask for advice or assistance from the appropriate division dean. The student may also request a meeting between the instructor and student with the dean present to assist discussion. If still dissatisfied after meeting with the instructor and dean, the student may, within twenty days following the meeting, file a Grade Grievance with the college grade grievance officer. The grade grievance officer will investigate the student's concern, including notifying the instructor when a grievance has been filed. Within twenty (20) working days after receiving the grievance, the grade grievance officer will respond by issuing a formal decision or recommendation resulting from the investigation. The student, instructor, and the instructor's immediate supervisor will receive copies of the grievance officer's response. In the absence of demonstrated error, fraud, or incompetence, only the course instructor has legal authority to change a final grade.

Prior to rendering a decision regarding an Academic Grievance, the grade grievance officer may, at his or her discretion, establish a hearing committee to review the student's concerns and assist in rendering a decision about the grievance. Such a committee will be constituted in accordance with college procedures described in full on the Grade Grievance form.

If dissatisfied with the decision of the grievance officer or the hearing committee, the student may present a written appeal to the college President. The appeal must be made within five (5) working days after receipt of the decision from the hearing committee or the grade grievance officer. A request for an appeal to the college President must be submitted to the Office of the President of Orange Coast College and must include copies of all documentation and decisions rendered up to that time. The President will ensure that the grade grievance officer and instructor named in the grievance are notified that an appeal has been submitted. The college President will respond to the appeal within twenty (20) working days after receiving it. The decision of the President is final and may not be further appealed. For more information, see the grade grievance officer or phone (714) 432-5045.

## Non-Discrimination Policy

It is the policy of the Coast Community College District to provide all persons with equal employment and educational opportunities regardless of race, color, gender, sexual orientation, national origin, religion, age, disability, or marital and Vietnam-era status.

## Política en Contra de la Discriminación

La política del Distrito de Coast Community College es de proveer a todas las personas igualdad de oportunidades de empleo y educación sin tener en cuenta su raza, color, sexo, país de origen, religión, edad, impedimento físico, estado civil o que hayan servido o no durante la era del Vietnam.

## Chính Sách Bất Kỳ Thị

Chính sách của Coast Community College District là cung cấp cơ hội đồng đều cho tất cả mọi người trong các lãnh vực giáo dục và công ăn việc làm, bất kể các khác biệt về chủng tộc, màu da, giới tính, khuynh hướng tình dục, nguồn gốc quốc gia, tôn giáo, tuổi tác, sự tật nguyền, tình trạng gia cảnh, hay vai trò của mình trong thời kỳ chiến tranh Việt Nam.

## Parking Permits

A registered student may purchase a parking permit for \$20 each semester and \$10 for summer session. The permit is valid at Orange Coast College and Golden West College. Alternatives to the parking permit are metered parking, which costs 25 cents for one hour, at most meters, and temporary parking permits available at the ticket dispensers.

Parking spaces are available on a first-come, first-served basis. The Coast Community College District and Orange Coast College accept no liability for vandalism, theft, or accidents; students use the parking facilities at their own risk.

For more information, complete parking rules and regulations are available at the campus safety building in the theatre parking lot. (714) 432-5017.

## Sexual Harassment

Sexual harassment is offensive, unwelcome sexual attention. It may be pressure for dates or sexual favors, suggestive gestures or remarks, touching, or even actual or attempted rape or assault. Sexual harassment is a form of sex discrimination which violates Title VII of the Federal Civil Rights Act of 1964 as amended; Title IX of the Education Amendments of 1972; California state law; and the Coast Community College District Board policies. If you feel you are being sexually harassed and would like clarification, please contact the Student Services Office for an informational brochure on the options available to you. If you would like to discuss your concern with an Administrator, please contact the Dean of Student Services. If contacted, the Administrator is required by law to conduct an investigation of the alleged charges.

## Student Due Process Procedure

If charges are brought against a student by another student or by a representative of the college, that student should get information about the college's due process procedure from the Student Services Office. The due process procedure guarantees fair and reasonable treatment of all concerned parties. OCC is bound by the laws of State of California, the California Education Code, and the policies and procedures of the Coast Community College District.

## Student Code of Conduct

Students enrolled at Orange Coast College assume an obligation to conduct themselves in accordance with the laws of the State of California, the California Education Code, and the policies and procedures of the Coast Community College District. The Code of Conduct has been established by the Coast Community College District Board of Trustees to provide notice to students of the type of conduct that is expected of each student. Being under the influence of drugs and/or alcohol or the existence of other mental impairment does not diminish or excuse a violation of the Code of Conduct.

- Aiding, abetting or inciting.
- False report of emergency.
- Any action which results in serious injury or death.
- Infliction of mental harm upon any member of the District community.
- Possession of weapons.
- Rape/sexual assault.
- Sale of Alcohol or Narcotics.
- Repeat Suspension.

A college student found to have violated any of the following regulations which are District or campus related may be expelled, placed on suspension, or given lesser sanction(s).

- Academic Misconduct
- Alcohol
- Assault/Battery
- Cheating/Plagiarism
- Continued Misconduct or Repeat Violation

- Destruction of Property
- Discrimination
- Dishonesty
- Disorderly or Lewd Conduct
- Disruption of Educational Process
- Disruptive Behavior
- Disturbing the Peace
- Failure to Appear
- Failure to Comply or Identify
- Failure to Obtain Permits
- Failure to Repay Debts or Return District Property
- False Report of Emergency
- Fighting
- Forgery
- Gambling
- Harassment
- Hateful Behavior
- Hazing
- Infliction of Mental Harm
- Library Materials (defacing, theft, etc.)
- Misrepresentation
- Misuse of Identification
- Narcotics
- Physical Abuse
- Possession of Stolen Property
- Possession of Weapons
- Public Intoxication
- Serious Injury or Death
- Sexual Harassment
- Smoking
- Stalking
- Theft or Abuse of District's Computers or Electronic Resources
- Theft or Conversion of Property
- Threat of Sexual Assault or Sexual Assault
- Trespass and Unauthorized Possession
- Unauthorized Tape Recording
- Unauthorized Use of Course Materials
- Unauthorized Use of District Keys
- Unauthorized Use of Electronic Devices
- Unauthorized Use of Property or Services
- Unreasonable Demands

- Violation of Computer Usage Policy
- Violation of Driving Regulations
- Violation of Health and Safety Regulations
- Violation of Law
- Violation of Posted District Rules

Copies of the Coast Community College District Student Code of Conduct and Disciplinary Procedures which includes complete definitions of the above violations are available in the Office of the Dean of Students.

## Liability

Throughout the academic year, some classes will meet at off-campus locations. The college will not provide transportation to these sites, and students enrolled in these classes are responsible for making their own transportation arrangements. Orange Coast College personnel may assist in coordinating this transportation and/or may recommend travel time, routes, carpooling, etc., however, the student does not have to follow these recommendations. The CCCD is in no way responsible, nor does it assume liability, for any injuries or losses resulting from this non-sponsored transportation. If you ride with another student, that student is not an agent of, nor driving on behalf of the District.

Under the California Code of Regulations, Subchapter 5, Section 55450, if you participate in a voluntary field trip or excursion, you hold the CCCD, its officers, agents and employees harmless from all liability or claims that may arise out of or in connection with your participation in this activity.

## About this Catalog

This publication must be prepared well in advance of the time period it covers; therefore, changes in some programs, policies and fees 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. Any questions about courses or programs listed in this catalog should be directed to the Counseling office.

# **Admission and Academic Information**

We want to make enrolling at Orange Coast College as convenient and easy as possible. It begins when the student, completes and files an application form in the Admissions Office, either in person, by mail or by our Internet Web site.

New students take assessment tests in English, reading and math. These tests are designed to help the student select courses which will lead to academic success.

Assessment testing is followed by an orientation and counseling session. Counselors help with the selection of appropriate courses and provide the permit to register.

These activities are followed by the actual registration process: signing up for classes and paying fees.

If a choice of a major is any one of the many allied health career programs, students go through a special admission process in addition to the activities described above. Additional information may be found in this section.

## Entrance Requirements

Admission to Orange Coast College is granted to those applicants who meet one of the following requirements:

- High school graduation.
- Certificate of Proficiency or a G.E.D. from the State of California.
- Attainment of 18 years of age and who, in the judgment of college officials, is capable of profiting from instruction at our college.
- Enrollment in the 11th or 12th grade and recommendation for advanced academic or vocational college level study.

Students enrolled as 11th or 12th grade students may enroll for courses at Orange Coast College under provisions of the Education Code, sections 76001 or 76001.5, and in accordance with the district's policy and the following guidelines:

- Students must be enrolled as 11th or 12th grade students at their schools.
- The course is an advanced academic or vocational experience for the student and not available at their regular school.
- Students must have letters of permission, signed by the parent and principal or designee of their school, recommending the specific course or courses.
- Students who have not completed the tenth grade may inquire through the appropriate Division office regarding their eligibility for specific advanced coursework. If approved, the student and their parent(s) must obtain the permission of the respective Division Dean and faculty and attend an appointment scheduled through the Office of the Administrative Dean of Enrollment Services.

## Application

An application for admission is required for all students. Application forms may be accessed through the OCC web site at [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu) or picked up in person at the OCC Admissions Office.

## Transcripts

Students that have completed English or mathematics coursework at another college or university, you must submit those transcripts for evaluation to the Admissions or Matriculation Office before enrolling in any course with an English or mathematics prerequisite.

College transcripts are also required for the Associate in Arts Degree (A.A.), Certificates of Achievement, transfer certification, and advisement. Orange Coast College reserves the right to evaluate work completed at other colleges.

Official student transcripts of records from other institutions become the property of Orange Coast College. Students with transcripts from countries outside the United States must first submit their transcripts to an evaluation service. Please contact the Counseling Office for information regarding these services.

## Priority Registration Policy

The Coast Community College District is committed to the philosophy that all students should have fair and equitable access to courses and programs within the resources of each college and in accordance with State Education Code, Title 5 provisions and guidelines adopted by the Board of Governors. Further, the District believes that students should be able to progress toward their stated educational objective in a timely manner.

The primary mission of the District colleges is to provide transfer and vocational courses and programs. Therefore, priority is extended to matriculated students who have demonstrated progress toward their declared educational objectives, the completion of their transfer requirements, and/or the completion of a degree or vocational certificate.

Enrollment priority is the process used to determine the order in which students will have the opportunity to register for classes. Recognizing that each college serves a unique student population that may have differing needs, the development of specific registration priorities will be done at the college level in accordance with District procedures.

Contact the Administrative Dean, Enrollment Services for additional information.

## Matriculation

The purpose of matriculation is to ensure access to programs and courses for all students who can benefit and to facilitate successful completion of each student's educational objectives.

On the college's part, the matriculation agreement includes providing an admissions process; orientation to college programs, services and procedures; pre-enrollment assessment and counseling; advisement and counseling for course selection; a suitable curriculum or program of courses, and continuous follow-up of student progress with referral to appropriate support services when needed.

On the student's part, the agreement calls for an expression of at least a broad educational intent at entrance and the willingness to declare a specific educational objective within a reasonable period of enrollment. Diligence in class attendance, completion of assigned coursework and maintenance of progress toward an educational goal is expected.

## Course Prerequisite, Corequisite and Advisory on Recommended Preparation

A "prerequisite" is a course a student is required to complete with a "C" or better, or a skill a student is required to have before enrolling in another course. A "corequisite" is a course a student is required to take at the same time he or she is enrolled in another course. All prerequisites and corequisites are designed to ensure students have the skills or information they need to succeed in a course. These requirements are established because it has been determined that without meeting them a student is not likely to receive a passing grade in the course. A prerequisite or corequisite may also be necessary to protect a student's health and safety or the health and safety of others.

An "Advisory on recommended preparation" (listed as "Recommended Preparation") is a course or skill a student should have before enrolling in another course. This is advice offered by the faculty who teach these courses, and it should be followed if a student wants to do well. However, unlike a prerequisite or corequisite, "Recommended Preparation" is not required.

## Course Prerequisite and Corequisite Challenge Process

A prerequisite and corequisite challenge requires written explanation and documentation of alternative coursework, professional or educational background, or demonstrated abilities which adequately prepare a student for the course. A Prerequisite Challenge Form can be obtained from the appropriate instructional division office. Students must follow the directions on the challenge form.

A student must file the prerequisite/corequisite challenge form not less than two weeks prior to the first day of instruction. The college will respond to the challenge within five working days. If the college fails to do so, the student will be admitted to the class that has the prerequisite and/or corequisite by the first day of the semester, providing that the course section was open on the date the student filed the challenge.

Reasons for filing a prerequisite/corequisite challenge may include one or more of the following:

- 1) A prerequisite/corequisite course has not been reasonably available or offered during the past two years.
- 2) The prerequisite has been established unlawfully, is unlawfully discriminatory, or is being applied in a discriminatory manner.
- 3) The student has the documented knowledge or demonstrated ability to succeed in the course without having completed the prerequisite/corequisite course.

A grade lower than a "C" in a prerequisite course may NOT be challenged through this process.

Decisions on challenges of prerequisite/corequisite course listings will be made by a committee of two college instructional staff members, at least one of whom will be a faculty member knowledgeable about the discipline, but not the faculty member assigned to teach the course section for which the challenge is being made.

## Assessment Test Requirements

Testing in English, ESL and mathematics is mandatory prior to enrolling in an English, ESL or math class. Students may not register in a level higher than what is indicated on the test results. If the student believes they can successfully complete a course above the level indicated, the student can submit an appeal to the Literature and Language Division Dean for English or ESL. Appeals regarding mathematics may be made at the Mathematics and Science Division Office. Any appeal must be made before the student is enrolled in the placement course and begun attending class. All placements are based on both test results and student background data.

If English is not the student's native language and he or she has taken the regular English Assessment Test, placement may not be accurate. The regular English test may not accurately measure the reading, writing and speaking skills of non-native speakers. If English is not the student's native language, he or she should make an appointment to take the ESL Assessment Test, which can correctly place the student in ESL courses or in regular English courses.

To take any placement test, go in person to the Assessment Center in the Special Service Building or call 714/432-5789.

## Admission to School of Allied Health Professions

Admission into Allied Health Professions programs is limited for several reasons:

- Training in any health care needs to meet an identified community need.
- Available clinical sites for hands on experience is limited.
- Educators must meet stringent qualifications.
- Availability of specialized equipment in highly technical laboratories is limited.

## General Program Requirements

The following programs require Allied Health 010 prerequisite:

- Cardiovascular Technology
  - Electrocardiology
  - Echocardiology
- Diagnostic Medical Sonography
- Dietetic Technician – Nutrition Care
- Neurodiagnostic Technology
- Polysomnography Technology
- Radiology Technology
- Respiratory Care
- Speech-Language Pathology Assistant

Allied Health 010 is optional for the following programs

- Dental Assisting – Registered
- Emergency Medical Technology
- Medical Assisting
- Medical Transcription

## Admission

Taking Allied Health 010 is the optimal method to determine career choices and apply to a specific program. Admission criteria include date of application, date of completion of specific required prerequisite courses, and for impacted programs the applicant should complete all general education requirements before entry. See specific program for requirements.

## Clinical

- Admission into the clinical phase of a program requires students are in good physical and mental health. A physical examination is required that includes blood testing, TB testing, and vaccinations.
- A criminal background check is required
- Students must adhere to a specific dress code and wear picture identification badges.
- Students must have reliable transportation to off-campus clinical sites

## General

- Students should have adequate financial support so as not to jeopardize their academic achievement and clinical experiences by extensive outside employment.
- Many programs have external licensing/certification examination with specific requirements.
- Many programs require completion of the Associate of Science degree. Students will need to complete (or show proof of completion) of all Associate of Science degree general education requirements.

## Course Recency for Programs that Require the Following Prerequisites

**Biology 221 – Anatomy-Physiology:** must have been successfully completed with a grade of 'C' or better within a five-year period of the initial application date for the specific program.

**Human Development 180 – Child Development:** must be successfully completed with a grade of 'C' or better within a five-year period of the initial application date for the Speech-Language Pathology Assistant program.

**Allied Health 111 – Medical Terminology:** must have been successfully completed with a grade of 'C' or better within a five-year period of the initial application date for the specific program.

If the course is greater than five years old and the student has been working in a field that requires application of this course material, the student may ask for a waiver of the recency requirement. This waiver will require a letter from the employer indicating the need and utilization of the course material. Otherwise, prerequisite courses listed above that have exceeded the five year limit must be re-taken. Final waiver determination is by the program director.

## Re-Entry into an Allied Health Program

**Up to two years:** A student withdrawing from a School of Allied Health program may re-enter that specific program within two years, contingent upon available space within the program. Re-entry must not compromise the educational continuity. Re-entry is allowed one time only. Final decision is deter-

mined by the program director. The program director may require the re-entry student to repeat core classes already taken by auditing or through learning contract.

**Greater than two years:** A student withdrawing from of a School of Allied Health program for greater than two years will be required to re-apply to the program and be placed on the appropriate list as a new applicant. Any core classes that were successfully completed will need to be repeated for education content and continuity through auditing or through a learning contract process.

## OCC Fees

California legislation requires the college to charge student enrollment fees. Student fees are:

- Enrollment fee of \$26 per unit (at time of publication) for students meeting California residency requirements.
- \$20 parking permit
- \$15 health service fee
- \$15 College Services charge\*
- Material fees as listed in the current class schedule

\* The college services charge provides services and benefits, e.g., the Library Computer Lab, Bookstore buyback, Edwards Cinema discounts, free tutoring, interest-free emergency loans, student activities, and legal advice. Students may present their request for waiver of the college services charge to the Dean of Student Services Office prior to registration (714) 432-5730.

Students not meeting **California residency requirements** are required to pay \$152 per unit in addition to the \$26 per unit enrollment fee. Students who are citizens and residents of other countries are required to pay an additional \$7 per unit capital outlay fee. All fees quoted are at time of publication and are subject to change without notice.

Student Health Center services include no-cost visits with doctors, registered nurses, and the mental health team, in addition to other services at reduced rates.

The student health service fee is mandated unless students present a waiver prior to registration. Those eligible for a waiver are:

- Recipients of SSI/SSP, AFDEC, or General Assistance. For more information, phone (714) 432-5508.
- Students who depend solely on prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization. For more information, phone (714) 432-5730. For information and/or waiver contact the Dean of Students Office prior to initial registration.
- Students in courses of less than two weeks duration.
- Students enrolled only in non-credit courses.
- Students enrolled only in study abroad programs.

Student Photo I.D. Cards are required for use in the Bookstore, Library, and for other transactions with the college. This card may be used in succeeding semesters when properly validated. Students will be required to replace any lost, stolen or unusable card.

In accordance with regulations of the Board of Governors of the California Community Colleges, Title 5, California Administrative Code, Section 59400 et seq., the Coast Community College District shall provide free of charge to students all instructional materials, except for the following materials which the student may purchase from the district at cost or may be provided through the student's own means.

- **Optional Instructional Materials:** Materials used to enhance the student's learning experience in the classroom, but that are not essential to the completion of course objectives.
- **Required Instructional Materials:** Materials required to complete the objectives of the course and that are tangible property of continuing value outside the classroom which the student will retain.

The college shall have the discretion to either charge or not charge a fee for instructional materials of the types indicated above. Such fees will cover actual district costs.

## Refund Policy

According to state regulations, to be eligible for a refund, students must withdraw from each course before 10% of the course is completed. All official withdrawals by the deadline will be credited to your OCC registration account. Instructor drops must be verified through the Touch-tone system.

**REFUNDS ARE NOT AUTOMATICALLY PROCESSED.** Requests for refunds must be submitted by mail or in-person. In-person transactions require photo identification.

To be eligible to receive a refund you must officially withdraw from classes by the deadline date printed on your student program. You may do this: using the **Touch-tone System (714) 438-8222, through the mail** or in person in the registration office. If withdrawing through the mail, your request **must be postmarked by the U. S. Postmaster, on or before the deadline date.**

**Please Note:** Once your classes have been dropped and you are eligible for a refund, you may request the refund anytime during the semester. The refund deadline printed on your receipt is the deadline to drop a class in order to be eligible for a refund, not the deadline to pick-up the refund. Refund request forms are available at [www.orange-coastcollege.edu](http://www.orange-coastcollege.edu) or in the registration office.

You may designate someone to withdraw you from your courses and receive your refund. The person you designate must present written authorization from you to the registration clerk and they must present photo identification.

1. **If you are withdrawing from all your classes** and wish to receive a refund for **ALL** fees, including material fees and parking, you must do the following **ON OR BEFORE THE DEADLINE DATE**, for each of the courses being dropped.
  - A. Withdraw from classes
  - B. Return Parking decal (if purchased) in-person or by mail. The Parking Decal must be returned/postmarked on or before the earliest refund deadline on your official program receipt.

2. **If you are withdrawing partially (i.e. one or two classes):** You will be eligible for refund for enrollment and material fees for classes dropped by each class deadline.

**Canceled Classes:** If Orange Coast College cancels a class, Registration Fees for that class will be refunded. The parking decal must be returned within 14 days of the class cancellation date.

3. **Fees Paid by Check:** Fees paid by check, will be refunded by check. You must meet all criteria set forth in items listed above. Check refund requests will be held for 15 business days from date of payment posting, unless proof of cleared check (canceled check or bank photocopy) is provided. Allow 6 to 8 weeks to receive a check after the request is received.

**ANY CHECK RETURNED UNPAID (STOP PAYMENT OR INSUFFICIENT FUNDS) DOES NOT CONSTITUTE AUTOMATIC WITHDRAWAL FROM CLASS.** A check returned from the bank for any reason is subject to a \$15.00 service charge. A hold will be placed on student records for any financial obligation, until the obligation is cleared.

4. **Fees Paid by Cash:** (Must meet all criteria set forth in Items 1-2 above)

Refund will be issued in cash up to a maximum of \$75. Those exceeding \$75 will be made by check. Allow 6 to 8 weeks to receive a check after the request is received.

5. **Fees Paid by Credit Card or Debit Card:** (Must meet all criteria set forth in Items 1-2 above)

**A. FEES PAID BY CREDIT/DEBIT CARD OVER THE TOUCH-TONE SYSTEM** - You may submit your request for a refund by mail or come into the Registration Office. We need the number and the expiration date of the card used for paying your fees.

**B. FEES PAID BY CREDIT/DEBIT CARD THROUGH THE MAIL or IN-PERSON** - Submit request for refund by mail or in the Registration Office. Present the ORIGINAL CREDIT/DEBIT CARD RECEIPT received at the time of payment, or your credit card statement showing the original charge.

## Residence Requirements

### California Residence

Verification of residence status may be required. Generally California residence is established by one of the following:

1. If the applicant is under the age of 18, his or her parents must have had legal residence within the State of California for 12 consecutive months preceding the day before the first day of the semester.
2. If the applicant is 18 but not yet 19 years of age, the applicant and the applicant's parents must have had legal residence within the State of California for 12 consecutive months preceding the day before the first day of the semester.
3. If the applicant is 19 years of age or older, the applicant must have had legal residence within the State of California for 12 consecutive months preceding the day before the first day of the semester. If the applicant's parents or legal guardians reside out-of-state, the student must be financially independent. (See Non-California Residents #2).
4. A non-citizen holding a visa that does not preclude the student from establishing residency in California must have legal residence in California for 12 consecutive months preceding the day before the first day of the semester and a visa dated at least one year and one day prior to the semester start date.

Persons generally ineligible to establish California residency include: students under age 18, students dependent on out-of-state parents/guardians, students with certain visa or citizenship status, etc. For further information regarding who is eligible to establish residency contact the residency desk at OCC Admissions.

### Non-California Residents

Students who do not meet the California residence requirements as of the day immediately preceding the first day of the semester of summer session are required to pay the non-resident tuition fees. This includes:

1. Minors (under 18 years of age and not married) will be required to pay the non-resident tuition fee if their parents or legal guardians reside out-

side the state even though such minors may have lived in the State of California for one year or more.

2. Students who are financially dependent on their parents or legal guardians will be required to pay non-resident tuition if their parents or legal guardians reside outside the state even though such students may have lived in the State of California for one year or more.
3. Students holding visas that preclude them from establishing residency in California may be restricted in their enrollment and will have to pay non-resident tuition. In addition, students with visas who are citizens of another country are required to pay an additional per unit capital outlay fee. See the class schedule for the amount of the fee.

Exceptions authorized by the State of California:

- Active military personnel are exempt from non-resident tuition fees provided they are in California for a purpose other than attending a state-supported institution of higher learning.
- Dependents of military personnel stationed on active duty in California are classified as a resident.
- Non-resident students who have completed three years of high school in California and graduated in California (or equivalency) may file an affidavit for waiver of non-resident fees (AB540).

## **International Students**

OCC is authorized by the U.S. Department of Homeland Security (DHS) to admit International Students under F-1 or M-1 visa status.

At OCC, we believe that our international students provide ethnic and cultural diversity to the campus and help increase the awareness and understanding of students from other countries and cultures. Conversely, we provide an opportunity for our international students to study in the United States and learn about us and our culture.

Interested international students should request applications for admission by mail from the International Center at Orange Coast College, P.O. Box 5005, Costa Mesa, California 92628-5005 or by e-mailing the International Center at [intctr@ccd.edu](mailto:intctr@ccd.edu). An application packet can also be

downloaded by visiting the prospective student section on the Orange Coast College Web Site at: [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu).

Our rolling admission process allows for acceptance to OCC during the Fall, Spring, and Summer semesters. Applicants outside the U.S. should apply at least two months prior to the start of the semester. Approximate semesters start dates are: late August for Fall, late January for Spring, and early June for Summer.

The following are entrance procedures for international students requesting F-1 status:

- International students must complete an international student application and a passport size photo and file the application with the International Center. A \$30 application fee, in U.S. dollars, must be submitted with the application.
- All evidence of academic achievement, which is equivalent to high school graduation or higher must be submitted. The transcripts of the original records must be accompanied by a notarized English translation. In addition, international students who are in the U.S. under F-1 status must submit all of their academic records from the institutions they have attended in the U.S.
- All applicants must demonstrate sufficient knowledge of the English language. A score of 500 (paper-based) or 173 (internet-based) on the Test of English as a Foreign Language (TOEFL) is required. For applicants in the U.S., an equivalent placement on the OCC's English Assessment Test (EAT) can be used in lieu of the required TOEFL score. Applicants in the U.S. can also satisfy the English requirement by completing the appropriate level in one of the English language programs that are in agreement with OCC. For a complete list of these schools, please contact the OCC International Center.
- All applicants must submit a personal statement about their background, experience, and educational goals.
- All applicants must submit updated financial support documentation. Proper financial forms can be obtained from the International Center or be downloaded from the

International Center web site at: [http://www.orangecoastcollege.edu/prospective\\_student/international\\_students/](http://www.orangecoastcollege.edu/prospective_student/international_students/)

- Applicants in the U.S. must submit copies of all immigration-related documents along with their application.

International students must enroll in and complete a minimum of 12 units each semester with a minimum 2.0 Grade Point Average (GPA) in order to maintain their valid F-1 status. In addition, all international students must maintain continuous medical coverage that is provided through the International Center throughout their studies at OCC. All international students pay non-resident tuition fees in addition to all other applicable fees during their entire attendance at OCC.

DHS prohibits international students from employment. International students must obtain approval from the DHS and the International Center before they engage in any on or off campus employment.

## **Students with Visas**

Students with the types of visas listed below, otherwise eligible for admission, may enroll for a maximum of 6 units provided they are proficient in English and have visas that do not expire before the end of the term for which they are enrolling.

- A—Career Diplomat
- E—Foreign Investor
- G—International Treaty Organization Representatives and Dependents
- H—Temporary Worker and Dependents
- I—Foreign Press
- J—Exchange Visitor
- K—Fiance'(e)
- L—Intra-Company Transferee and Dependents

A student who is precluded from establishing domicile in the United States shall not be classified as a resident unless and until he or she has been granted a change in status by the Immigration and Naturalization Service to a classification which permits establishing domicile and has met other residency requirements.

## Veterans, Active Duty Military and Credit for Military Training

Orange Coast College is approved for training veterans under all applicable laws. The college helps veterans by cooperating with the Veterans Administration and the California State Department of Veterans Affairs. Orange Coast College is a Servicemen Opportunity College (SOC) and establishes policies and programs for educating veterans and active-duty military personnel.

Some benefits are available for active-duty personnel. Those personnel must be attending college on their own time and must have served at least two years.

Orange Coast College recognizes and grants academic credit to veterans for eligible military service and training credit completed in the armed forces. Orange Coast College reserves the right to evaluate and grant credit based on the academic policies established at OCC. Veteran's may apply for evaluation of this credit by presenting authentic military service and training records of the Veteran's Clerk, including a copy of discharge papers. Awarded credit will be applied once the student has completed 12 units at Orange Coast College. Credit earned for military training may count toward satisfying requirements for the Associate in Arts (A.A.) Degree; military. Credit awarded may not transfer to other colleges. Veterans are advised to check with the college they plan to transfer to for information regarding awarding military credit. Under no circumstances will OCC graduate a student who has not completed 12 units of Orange Coast College coursework.

## Transfer to Other Colleges

Students can complete up to two years of coursework at Orange Coast College before transferring to another college or university. Many programs are available which qualify students for junior standing in most four-year colleges and universities in the United States. Students planning to transfer should consult the catalog of the college or university in which they are interested. With a counselor's assistance, students can select Orange Coast College courses which satisfy the lower division requirements of that college or university.

Catalogs of schools, colleges and universities are available in the Counseling Center, the Transfer Center and in the library. Also, be sure to see the Transfer Information section of this catalog.

Upon written request from the student, a transcript from OCC will be sent to another college or university. The first two transcripts and/or verification of record are provided free. Each additional transcript or verification of record costs \$3.

## Study Load and Student Classification

The average student, enrolled full-time in classes at Orange Coast College, carries 15 units during a semester. This load requires most students to spend 40-45 hours each week preparing for and attending classes. The college recommends that entering freshmen carrying a full academic load (15 or more units) plan to work no more than 12-16 hours each week. Students having a poor high school record—below a "C" average—probably should work no more than 6-8 hours each week.

No OCC student may carry more than 19 units during a semester, 9 units during summer, or 5 units during intersession without the permission of the OCC Dean of Counseling Services. This maximum applies to the combination of all units in which the student enrolls per semester/term in the Coast Community Colleges (Orange Coast, Golden West and Coastline).

Students are classified as follows:

### Freshman—

A student who has completed fewer than 30 units.

### Sophomore—

A student who has completed 30 or more units.

### Part-time—

A student carrying fewer than 12 units. (for Summer session, fewer than 6 units)

### Full-time—

A student carrying 12 or more units. (for Summer session, 6 or more units)

## Remedial Coursework Limits

No more than 30 semester units of course credit may be assigned to a student for remedial coursework except when the student is enrolled in one or more courses in English as a Second Language or is identified as having a learning disability. This limit may be waived if the student can show significant and/or measurable progress toward the development of skills appropriate to enrollment in college-level courses. Students needing remedial instruction beyond the course credit restrictions set forth in this section shall be referred to appropriate non-credit adult basic education programs conducted by an adult school.

## Alternate Methods of Study and Course Credit

Orange Coast College recognizes work taken at other accredited colleges. Additionally college credit is awarded in the following areas:

### Credit by Examination

Credit by Examination may be offered on a limited basis at the discretion of the respective Instructional Division. Students who have completed a minimum of 12 units at Orange Coast College, with a cumulative grade point average of at least 2.4 (C+) may inquire in the respective Division Office regarding eligible courses. If the course is eligible, students may petition through the Division Office and seek approval. Since Credit by Examination may not transfer to other institutions, students are strongly recommended to make an appointment with a counselor. The final approval is determined by the Division.

1. Contact the respective Division Office to determine course eligibility for Credit by Examination.
2. If eligible, obtain and complete the petition from the respective Division Office and attach an official or unofficial OCC transcript showing successful completion of a minimum of 12 units at OCC prior to petition, AND a cumulative grade point average (GPA) of 2.4 or higher. There are no exceptions to this requirement.

3. If the petition is approved by the Dean and the faculty, take the petition to the Registration area of the Student Records Office to file your petition for credit and make payment no later than the third week of the semester.
4. Meet with the instructor at the agreed upon time and place and take the examination. Exam grades are final and will be posted to the transcript. Failure to successfully complete the examination will result in an unsatisfactory grade.

Students should not enroll in the course to be taken as credit by examination. The course credit is clearly identified on the students' transcript and designated as "Credit by Examination." Transferability of credit by examination is subject to review by other colleges and universities, and may not transfer. Units earned by examination are excluded from enrollment verifications and OCC residence requirements for the A.A. Degree.



### **Online Learning at Orange Coast College**

As an important instructional tool and delivery system, the World Wide Web is used to enhance instruction at Orange Coast College in a wide variety of ways. Online learning opportunities at OCC include courses taught partially or completely via the Internet, as well as campus-based classes that include online materials and activities. All online courses are equivalent to their campus counterparts. Many of the online instructional modules offer students new and highly stimulating modes of learning.

Consult the OCC schedule of classes for more information about online courses.

### **CLEP – College Level Examination Program**

Orange Coast College grants a maximum of 24 units for any combination of CLEP general exams and subject exams, using as minimum standards a score at or above 500 on the general exams and 50 on the subject exams, and 50 for all CLEP computer-based exams. CLEP scores count toward graduation requirements at OCC under General Education Option 1 or Option 2 but are not used to certify general education requirements for transfer. CLEP cred-

it granted at OCC does not transfer to other colleges. The respective college or university determines eligibility for CLEP units, according to their policies. CLEP scores must be submitted for evaluation directly to the college or university where the student requests credit. The University of California does not grant credit for CLEP exams. The California State University will accept some CLEP exams; however, policies including exams accepted and scores required, differ on each campus. CLEP policies for each four-year college can be found in their catalogs.

Students may request CLEP credit through the Records Office. Exam results and units granted are posted on the student's transcript after completion of 12 units of course work at OCC. Credit for CLEP exams is granted as follows:

A. General Examinations:

Option 1:

English Composition – 3 units in Area A1 and 3 units of elective credit

Humanities – 3 units in Area C1 and 3 units of elective credit

Mathematics – 3 units in Area A2 (also meets math graduation requirement) and 3 units of elective credit

Natural Science – 6 units in Area B

Social Science – 3 units in Area D2 and 3 units of elective credit

Option 2:

English Composition – 3 units in A2 and 3 units of elective credit

Humanities – 3 units in Area C1 and 3 units in Area C2

Mathematics – 3 units in Area B4 and 3 units of elective credit

Natural Science – 3 units in Area B1 and 3 units in Area B2 (does not meet lab requirement)

Social Science – 3 units in Area D (does not meet American history and political science requirement) and 3 units of elective credit

B. Subject Examinations:

3 units of credit are granted in the discipline for each Subject Examination and meet elective credit or subject area requirements in both Option 1 and Option 2 for graduation purposes.

Please see a counselor for other kinds of standardized college-level examinations. For more information, call the Testing Office, (714) 432-5789.

**Credit by Advanced Placement**

Orange Coast College grants academic credit towards an Associate in Arts Degree (A.A.) for successful completion of examinations of the Advanced Placement Program of the College Entrance Examination Board. Students may apply for this credit by presenting official test scores to the Records Office. Advanced Placement credit is granted at OCC according to the following policies:

1. Course credit granted for Advanced Placement Examinations can be used to meet OCC general education requirements for an A.A. degree under General Education Options 1, 2 or 3.
2. Course credit earned through Advanced Placement Examination can be used to certify general education requirements for transfer to UC under Option 3 (Intersegmental General Education Transfer Curriculum). AP credit can be used to certify general education for transfer to CSU under Option 2 (CSU General Education Breadth) or Option 3 (IGETC). Students certified using Option 3 can satisfy only one course requirement per exam on the IGETC.
3. Posting of Advanced Placement credit on the OCC transcript does not transfer to other colleges. The respective college or university determines eligibility for AP units, according to its policies. AP scores must be submitted for evaluation to the college or university where the student requests credit. Students planning to transfer should consult the catalog of the transfer institution to determine how AP credit is granted at that school.
4. Students are not given duplicate credit for college courses and exams.

Students should request Advanced Placement credit through the Student Records Office. Exams and courses for which credit is granted will be posted on the student's transcript after completion of 12 units of course work at OCC as follows:

EXAMINATION	SCORE	UNITS	COURSE
ART (STUDIO)			
S/B 2-D Design Portfolio	3	3	Art 110
ART (HISTORY)	3	6	Art 100 & 101
BIOLOGY	3	4	Biology 100
CHEMISTRY	3	5	Chemistry 110
ECONOMICS			
Macroeconomics	3	3	Economics 180
Microeconomics	3	3	Economics 185
ENGLISH			
Composition & Lit	3	3	English 100
Language & Comp	3	3	English 100
FOREIGN LANGUAGE			
French Lang	3	5	Fren 185
German Lang	3	5	Ger 185
Spanish Lang	3	5	Span 185
GOVERNMENT/POLITICS			
Comparative	3	3	Pol Sci 185
HISTORY			
American	3	6	Hist 170 & 175
European	3	6	Hist 180 & 185
MATHEMATICS			
Calculus AB	3	4	Math 180
Calculus BC	3	4	Math 180
Calculus BC	5	4	Math 180 & 185
Statistics	3	3	Math 160
MUSIC			
Listening & Literature	3	3	Music 100
Theory	3	3	Music 115
PHYSICS			
Physics B	3	4	Phys 110 & 111
Physics C1 (Mech.)	3	4	Physics 120
Physics C2 (Elect.& Magnetism)	3	4	Physics 125
PSYCHOLOGY			
Psychology	3	3	Psychology 100

**Learning Contract for Independent Study**

This is an alternative method of college study. If the instructor and the Division Dean approve, a student may take any course in the Orange Coast College catalog on a contract basis. The number of units received and the prescribed hours of study follow the approved catalog description. Two kinds of independent study exist at Orange Coast College:

**Contracted Studies**

A student who, for one reason or another, cannot attend a class or classes may negotiate an Independent Study Contract by following these procedures:

1. Get a Learning Contract from the particular division office.
2. Get the permission of the instructor and ask the instructor to specify in detail in the context of the contract the way the student will master the study area and the criteria for evaluation.
3. Have the instructor and Division Dean approve the contract.
4. Take the contract personally to the Student Records Office if the contract is approved. The Student Records Office will officially enroll the student in the course.
5. After the student completes the coursework, the instructor will certify the earned grade. The Student Records Office will then record the grade on the student's transcript.

**Directed Studies**

A student may take advanced coursework in a field of study after having completed the introductory courses. Most departments offer a set of directed study courses numbered 291AD-295AD. In unusual cases, students may enroll in directed studies without completing the pertinent beginning courses. Directed studies students must have the instructor fill out a Learning Contract for Independent Study and have it approved by the Division Dean. Follow the procedures given under contracted studies.

Course No.	Units	Clock hours per semester
291AD	1	054
292AD	2	108
293AD	3	162
294AD	4	216
295AD	5	270

A maximum credit of 3 units per term, 6 units total, in otherwise transferable subject areas is allowed. Letter grades are assigned for Directed Studies (grade only). The granting of transfer credit for courses of this kind is contingent upon a review of the course outline by a University of California or California State University campus.

### Study Abroad Program

The Coast Community College District Study Abroad program offers a variety of short-term programs contingent upon contractual agreements with service providers. For information on upcoming programs, visit [www.cccd.edu/studyabroad](http://www.cccd.edu/studyabroad).

### ECC Kokusai College of Foreign Languages

Orange Coast College has established a transfer-in articulation agreement with ECC Kokusai College of Foreign Languages in Japan. Kokusai students who transfer to Orange Coast College can receive credit for those courses that are listed on our respective colleges' articulation agreement. These credits will count towards an Associate degree, but are subject to review upon transfer to other colleges and universities.

### International I.D. Cards

The International Center is listed as an issuing office for International I.D. Cards. The Center issues the International Teacher Identity Cards (ITIC), the International Student I.D. Cards (ISIC), and the International Youth Travel Cards (YTC). These cards provide access to special discounts and benefits while traveling internationally. For pricing information and eligibility requirements, contact the International Center at (714) 432-5940.

### Military Study Programs

Orange Coast College recognizes and grants academic credit to veterans for eligible service and training completed in the armed forces. Orange Coast College reserves the right to evaluate and grant credit based on the academic policies established at OCC. Veterans may apply for academic credit earned through military service and training by presenting authentic military service and training records, including a copy of discharge papers, to the Veteran's Clerk. Awarded credit will be applied once the student has completed 12 units at Orange Coast College. Credit earned for military training may count toward satisfying requirements for the Associate in Arts (A.A.) Degree; however under no circumstances will OCC graduate a veteran who has not completed 12 units of Orange Coast College coursework.

### Professional Secretarial Examination

Up to 30 units may be awarded for the following certificate holders: Certified Professional Secretary, Professional Legal Secretary, and Certified Medical Assistant, Administrative. Credits are posted to transcripts upon completion of 12 units at Orange Coast College.

### Licensure Credit for Radiologic Technologist

Forty-five units may be awarded for holders of valid Certified Radiologic Technologist State License (or equivalent agency). Students must show the original license to the office of Admissions and Records in order to be eligible for this credit. Credits are posted to transcripts upon completion of 12 units of credit at Orange Coast College.

### Other Licensure Credit

Other licenses issued by the State of California will be considered through the Academic Petition Council procedures as appropriate.

## Grades and Grade Points

Performance in courses is indicated by one of seven grades. Five of these grades signify passing work. Each grade and its value in grade points follow:

Grade	Significance	GradePoints Per Unit
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing; less than satisfactory	1
F	Failing	0
CR	Credit; at least satisfactory	(units awarded; not counted in GPA)
NC	No Credit; not satisfactory or failing	(not counted in GPA)

The grade point average is calculated by dividing the number of grade points by the number of units attempted for the grades of A,B,C,D,F. (CR and NC are not used in this calculation.)

A disciplinary "F" grade may be assigned for violations of the Academic Honesty Policy, consistent with the District Student Code of Conduct. The following non-evaluative abbreviations may be used as defined, but they will not be used when calculating grade point averages.

## Abbreviation/Definition

### W (Withdraw)

1. Withdrawing from a class is permitted by notifying the Student Records Office in writing or through the Touch-Tone System through the last day of the 14th week of the semester or through 75 percent of a course, whichever is less. Please check the program receipt for specific dates.
2. No notation ("W" or otherwise) is made on the permanent record of a student who withdraws during the first four weeks of the semester or during the first 30 percent of a course, whichever is less.
3. Students are responsible for withdrawing from class within the appropriate time to avoid an unsatisfactory grade, and verifying receipt of withdrawal.

### I (Incomplete)

- If agreed upon between the instructor and the student or, if necessary, by the instructor alone, a student may receive an "I" grade when work in the class cannot be completed.
- a. Most of the academic work must be completed and there must be a justifiable reason for receiving the incomplete.
  - b. The condition for removal of the incomplete shall be stated by the instructor in a written record.
  - c. An incomplete must be made up no later than one year following the end of the term in which it was assigned.

- d. An incomplete not made up within the one-year limit changes to the alternate grade assigned by the instructor when the "I" was given.
- e. A student may not re-enroll in a class in which an incomplete was awarded.

## IP (In Progress)

The "IP" abbreviation is used only in those courses which extend beyond the usual academic term. The "IP" symbol remains on the student's academic record to document enrollment, but is not used in calculating grade points averages. If a student enrolled in an "open-entry, open-exit" course is assigned an "IP" at the end of a term and does not re-enroll in that course during the next term, the appropriate grade will be assigned.

## RD (Report Delayed)

The "RD" abbreviation is used only by the Registrar. It signifies a delay in reporting the grade of a student because of circumstances beyond the student's control.

## Grade or Credit Option

Students who enroll in courses designated "graded or credit option" may request the credit option instead of a letter grade only by completing a request form through the Records Office.

- Students must choose the credit/option no later than the fifth week of a semester-length course or before the completion of 30 percent of the course.
- Before selecting the credit option, students should consult with a counselor. Generally, it is recommended that students select a letter grade in courses satisfying requirements for majors, general education, or a high school course deficiency.
- A maximum of 15 units of credit option coursework earned at an accredited college or university is counted toward the degree requirements of this college.
- Grades of "NC" are considered unsatisfactory for progress probation or dismissal.
- In courses where one performance standard determines unit credit, only a "CR" or "NC" is given.

Students may repeat a course in which they received a "NC", "D", "F" or "W" one time only. Only the second grade and units in the repeated course will be counted when determining grade point average. If the course is repeated within the Coast Community College District, a student can request to have the first substandard grade for a repeated course removed from the grade point average calculation, by filling out the Petition to Line Out a "D" or "F" grade through the Records Office.

## Course Repetition

For courses in which a "D", "F", "NC" or a "W" were awarded, students may repeat the course one time only at Orange Coast College, Golden West College or Coastline Community College, without any special approval. After two unsuccessful attempts, a student's registration in the course is automatically blocked. Students may petition the OCC Academic Petition Council for consideration of a third attempt. Petitions are available in the Counseling Office and should be filed at least two weeks prior to the semester start date.

If grades of "A", "B", "C", or "CR" were received for prior course completions, students may petition the Division Dean of the course discipline to determine if the course is eligible for audit.

If a course is repeated within the Coast Community College District, students may petition the Records Office for grade line-out to have their grade point averages re-calculated to omit the prior unsatisfactory grade(s) of "D" and "F". However, previously recorded coursework will not be removed or otherwise changed on the student's permanent record.

If a grade of "I" (incomplete) is received for a course, a student may not enroll in the course. That course is completed if the student meets the prescribed requirements as set forth by the faculty member issuing the "I" grade.

## Repeatability

Courses designated A-B, A-C, A-D may be repeated for credit; however, they may not be taken concurrently. A-B designated courses may be taken twice; A-C courses three times, and, A-D courses four times. A course may be designated as repeatable (AB, AC, or AD) only if,

1. the course content differs each time it is offered  
*AND*
2. the student who repeats the course is gaining an expanded educational experience for one of the two following reasons:
  - a. Skills or proficiencies are enhanced by supervised repetition and practice within class periods; or
  - b. Active participatory experience in individual study or group assignments is the basic means by which learning objectives are obtained.
3. Disabled students may repeat a special education class beyond the four semester limit if it is determined that continued success in other college courses is dependent on additional repetitions of the special education class. Also, students who exceed the four semester limit may do so only if they demonstrate measurable progress according to their educational plan. (Section 56029, Title 5 of the California Code of Regulations.)

Courses designated as repeatable shall show in the course outline how each A-B-C-D segment differs. Students who are unsuccessful (W, D, F, NC) in the first two enrollments in a course are automatically blocked from enrollment in that course.

## Associate in Arts Degree

Orange Coast College awards the Associate in Arts degree to students who have met all the general education requirements for graduation. Check with your counselor to determine which general education option you should complete and to obtain a grad check before submitting your graduation petition. **The Associate in Arts Degree is not automatically awarded.** A petition must be filed in the Records Office at the beginning of the semester in which the student completes the final requirements.

Petitioning periods for the Associate in Arts Degree are:

- Summer - June 1 through July 15
- Fall- August 15 through October 15
- Spring- December 1 through March 1

## Certificate Awards

Orange Coast College offers two types of certificate awards in career programs designed to prepare the graduate to enter a particular field of employment.

- 1. Certificate of Achievement:** Requires 18 or more units in an approved program. Certificates of Achievement are not automatically awarded. A petition must be filed in the Records Office at the beginning of the semester in which the student will be completing his or her final requirements. Petitioning periods are listed below.
- 2. Certificate of Completion:** Approved programs of less than 18 units. Certificates of Completion are not awarded automatically. Petitions are submitted to the Division Office of each specific program. The procedures for each division will vary (please call for details.) Most Division Offices prefer that student complete all of the required courses and then provide a copy of transcript. Some divisions will allow applications for Certificates of Completion prior to finishing.

Petitioning periods for Certificates of Achievement are:

Summer - June 1 through July 15

Fall- August 15 through October 15

Spring- December 1 through March 1

- *A list of career programs and requirements can be found in the Career and Certificate Program Section of this catalog. Check with a counselor to determine the requirements for completion.*

## Waiver of A.A. and/or Certificate Requirements

Students wishing to substitute or waive courses which satisfy A.A. or Certificate of Achievement requirements must see a counselor and petition the Academic Petition Council.

## Course Auditing

In accordance with the California Education Code Section 76370 and district policy, students may audit courses specifically designated by the college as eligible for audit (primarily certain

dance/musical/theatrical performance or physical education laboratory courses). Students who audit classes will be expected to participate in all class activities as required by the instructor. No credit is awarded. Further information can be obtained in the Division Deans' Offices or in the office of the Administrative Dean of Admissions and Records.

## Academic Standards

Standards of academic excellence are cornerstones of learning institutions and, therefore, should be maintained and promoted. It is the responsibility of all college community members to be familiar with ways to promote the highest standards of academic performance. The following guidelines are designed to clarify and facilitate attitudes and behavior consistent with standards of academic excellence.

### Attendance

Please note that students who miss the first meeting of a class or who have too many absences MAY be dropped by the instructor at any time during the semester until the final deadline for withdrawal. However, it is the responsibility of the student to withdraw in order to meet all fee and withdrawal deadlines and grade penalties.

### Absences

Instructors may allow absences for reasons of illness, emergencies, or college-sponsored activities including field trips, athletic events, speech tournaments, or other co-curricular activities. Those student activities should be scheduled to minimize absences from regularly scheduled classes. Instructors are responsible for sending Co-curricular Participation Lists to the office of the Dean of Students. Students, also, should inform instructors of upcoming co-curricular activities and ask for ways of making up the absences.

### Absence/Make-up Activities

Instructors may require make-up activities equivalent to the lessons missed through absence. What constitutes an excused absence, and any required make-up activities, should be stated clearly, preferably in writing, by the instructor at the start of the course.

It is recommended that a student not be absent more than the number of course units in order to maintain a passing course grade/credit. That is, one hour of absence for each unit of class. State law requires an accurate attendance record in order for the college to receive funding.

## Working Students

Working students should remember that taking 15 units of college coursework requires about the same amount of time as working 40 hours a week; therefore, full-time students should work no more than 20 hours a week. Students may contact the Financial Aid Office or call 432-5165 to determine their eligibility for financial assistance. No student should expect any instructor to lower course standards to accommodate them for not doing required coursework due to work employment.

## Academic Honors

### President's List

Students are eligible for the President's List after completing a semester of at least 12 units in courses awarding letter grades and a GPA of 4.0. A letter recognizing this achievement will be sent to the student. Your official transcript will show that you are on the President's list. For additional information, please contact the President's Office in the Administration Building.

### Dean's List

Students are eligible to be included on the Dean's List after completing a semester of at least 12 units in courses awarding letter grades and in which a GPA of 3.50 to 3.99 is earned. To request a letter recognizing this achievement or obtain additional information, please contact the Office of Instruction in the Administration Building. Your official transcript will show that you are on the Dean's list.

### Honors List

Students are eligible to be included on the Honors List after completing a semester of 6.0 to 11.9 units in courses awarding letter grades and in which a GPA of 3.75 to 4.0 is earned. To request a letter recognizing this achievement or obtain addi-

tional information, please contact the Office of Instruction in the Administration Building. Your official transcript will show that you are on the Honor's list.

## **OCC Honors Program**

The Orange Coast College Honors Program provides courses designed to challenge the highly motivated student. Instructors for honors courses enhance basic curriculum requirements of their classes by offering more intensive study than is possible in most regular course sections. Honors sections are listed in the fall and spring class schedules.

Honors Program benefits include the potential for priority transfer admission to several four-year institutions, interaction with highly motivated students, and honors designation on transcripts. Honors Program completion requirements include eighteen units of honors credit from three different campus departments with at least a 3.25 GPA in all college work.

Students who do not meet the general requirements for participation in the Honors Program are encouraged to become Honors students by improving their GPA's while taking regular and honors courses. Students may enroll in honors sections without applying to the Honors Program. Please call (714) 432-5601 to learn more about honors courses and the Honors Program.

## **Alpha Gamma Sigma**

Alpha Gamma Sigma is the California Community College Honor Society. It is an extension of the California Scholarship Federation at the secondary school level. Alpha Gamma Sigma was established in 1922. The Orange Coast Chapter is Alpha Kappa. The requirements for membership in this Chapter are:

### **Initial Membership**

- Not previously a member of AGS
- Minimum cumulative and qualification semester GPAs of 3.50
- No grade lower than "C" (all D's, F's, NC's lined out)
- Completion of 12 semester units in a maximum of 3 semesters for which letter grades

were awarded (Units acquired more than two years prior to application will not be used prohibitively)

### **Continuing Membership**

- Previously granted AGS membership
- Minimum cumulative and qualifying semester GPAs of 3.50
- Completion of at least 6 units in the qualification semester for which letter grades were awarded
- No grade lower than "C" since Initial Membership (all D's, F's, NC's lined out)
- No more than two semesters between membership renewals

### **Permanent Membership**

- Previously granted Initial Membership AND Continuing Membership (must have been a member for at least two semesters with no more than a two semester gap between membership renewals)
- Minimum cumulative and qualifying semester GPAs of 3.50
- Completion of a minimum of 60 units, at least 30 of which have been earned at OCC (units from other colleges will be considered upon review); a maximum of 6 units may have received CR instead of a letter grade
- No grade lower than "C" since Initial Membership (all D's, F's, NC's lined out)

Membership is not automatic. Students will be invited to join following the end of each semester, or may request an application if they feel they meet all the qualification criteria. Applications are submitted to the Academic Honors Office with appropriate dues.

## **Mu Alpha Theta**

Mu Alpha Theta is a national mathematics honorary society for community college students. The Orange Coast College chapter was established in 1971. If the student has earned a grade of "A" or "B" in Math 154 or a higher-level math course (except Math 160 or Math 220), completed at least 12 units for credit at OCC, and has a cumulative grade point average of at least 3.25, he

or she will be invited to join. Membership is not automatic. The student will be notified of eligibility each year and must apply for membership and pay dues. For information, contact the Math and Science Division Office.

## **Phi Alpha Mu**

Phi Alpha Mu was created in 1957 by the OCC social and behavioral science faculty. It grew from a desire to recognize, honor and encourage outstanding student achievement in OCC social and science courses. To achieve Phi Alpha Mu recognition and honor, a freshman student must have completed at least 12 units with a 3.50 grade point average in OCC social and behavioral science courses—American Studies, anthropology, economics, ethnic studies, geography, history, humanities, philosophy, political science, psychology, religious studies or sociology. If you meet these requirements and your Orange Coast College overall grade point average is at least 3.00, you are eligible to join Phi Alpha Mu, the social science honorary society. Pick up an application in the Social Science division office in the Forum Building.

## **Phi Theta Kappa**

Phi Theta Kappa is the only internationally acclaimed academic honor society serving two-year institutions. The American Association of Community Colleges recognizes Phi Theta Kappa as the official honor society for two-year colleges. The Orange Coast College Chapter is Beta Mu Alpha.

You may be eligible for membership if you meet the following minimum requirements:

- Twelve (12) semester units of associate degree level coursework.
- Cumulative GPA of 3.50

After acceptance, members must maintain a cumulative GPA of 3.25 or above.

Membership is not automatic. Students will be invited to join following the end of each semester, or may request an application if they feel they meet all the qualification criteria. Applications are submitted to the Academic Honors Office with one-time dues (currently \$65.00). Acceptance enrolls the student to PTK international, regional and local chapters.

## **Psi Beta**

Psi Beta is the national honor society in Psychology for Community and Junior Colleges.

The purpose of the society is to stimulate, encourage and recognize students' outstanding scholarship and interest in psychology.

Psi Beta offers the experience of leadership, interaction with faculty outside the classroom, participation in community service, and meeting others with the same interests. It offers the opportunity to participate in national, regional and local programs.

Students must have completed at least 12 semester hours, 3 of which must be in psychology. The student's overall GPA must be 3.0 or better; plus "B" or better grade must be received in psychology classes.

There is a one-time national registration fee of \$50, which includes a certificate and lapel pin.

## **Academic Renewal Policy and Procedures**

This Academic Renewal Policy for Coast Community College District is issued pursuant to Sections 55764 and 55765 of the California Administrative Code (Title 5) regulations. The purpose of this policy is to disregard past substandard academic performance of students when such work is not reflective of their current demonstrated ability. It is based on the recognition that due to unusual circumstances, or circumstances beyond the students' control, the past substandard work will negatively affect their academic standing and unnecessarily prolong the rate at which they complete their current objectives.

If specific conditions are met, Coast Community College District colleges may disregard from all consideration associated with the computation of a student's cumulative GPA up to a maximum of thirty (30) semester units of course work from a maximum of two (2) semesters or three (3) quarters taken at the Coast Community College District or taken at any college (*for OCC AA degree graduation (GPA) purposes only*). These conditions are:

1. The GPA of the coursework to be disregarded is less than 2.0.

2. A minimum of 12 semester units has been completed at any regionally accredited college or university with a GPA of at least 2.0 in all coursework subsequent to the course-work to be disregarded.
3. At least 12 months have elapsed since the most recent coursework to be disregarded.
4. **All coursework** shall be disregarded except those courses needed as a prerequisite or to satisfy a requirement in the student's redirected educational objective.
5. **Credit for courses from other colleges or universities can be disregarded in order to meet the grade point average requirements for OCC AA degree graduation.**

NOTE: It is important to understand that ALL COURSEWORK WILL REMAIN LEGIBLE on the student's permanent record (transcripts), ensuring a true and complete academic history. However, students' permanent records will be annotated so that it is readily evident to all users of the records that the units are to be disregarded. This notation will be made at the time that the academic renewal has been approved by the appropriate college office.

Students may re-enroll only in courses in which substandard grades were earned (D, F or NC).

Students who have earned a satisfactory grade (A, B, C, or CR) in a course taken during the semester of academic renewal are not permitted to re-enroll in that course

If another accredited college has acted to remove previous coursework from consideration in computing the GPA, such action shall be honored in terms of its policy. However, such units disregarded shall be deducted from the 30 semester units maximum of coursework eligible to be disregarded at a Coast Community College District college.

Interpretation of the academic renewal procedure is the responsibility of the appropriate college official who may, for compelling reasons, make exceptions to the stated conditions provided the requirements of Title 5 (sections 55764 and 55765) are observed. *All receiving schools may not accept our Academic Renewal Policy.*

## **Procedures**

1. Students requesting removal of previous coursework for certificate or degree consideration shall file a petition with the Dean of Counseling. The petition shall indicate the semester(s) for coursework to be disregarded, and shall include evidence verifying the expiration of at least 12 months since the end of the last semester containing courses to be disregarded, and the subsequent completion of a minimum of 12 units with a 2.0 cumulative grade point average.
2. The Dean of Counseling, or his or her designee, upon verification of the conditions set forth in the policy statement, shall act to approve the petition and make the proper annotation on the student's permanent record.

Interpretation of the academic renewal policy is the responsibility of the Dean of Counseling who may, for compelling reasons, make exceptions to the stated conditions provided the requirements of Title 5 (Sections 55764 and 55765) are observed.

## **Probation and Disqualification Policy**

### **Probation**

A student in the Coast Community College District shall be placed on probation whenever one of the two conditions listed below are met.

1. Academic Probation

The student has attempted at least 12 semester units at a district college and

- a. has a grade point average of less than 2.0 in the most recent semester completed, or
- b. has a cumulative grade point average of less than 2.0 in all units attempted.

2. Progress Probation

The student has attempted at least 12 semester units at a district college and the percentage of units in which the student has been enrolled for which entries of "W", "I", and "NC" are recorded reaches or exceeds 50 percent.

A student on probation from one district college shall be on probation at all three district colleges. All probationary students shall be notified of their status and provided with an opportunity for counseling services. (Title 5, Sections 55754, 55755)

### **Disqualification**

A student in the Coast Community College District who is on academic or progress probation shall be disqualified whenever one of the two conditions listed below are met:

#### 1. Academic Disqualification

Any student on academic probation for two consecutive semesters shall be academically disqualified. However, any student on academic probation whose most recent semester grade point average equals or exceeds 2.0 or whose cumulative grade point average equals or exceeds 2.0 shall not be disqualified but shall be continued on academic probation.

#### 2. Progress Disqualification

Any student who is on progress probation for two consecutive semesters shall be disqualified for lack of satisfactory progress. However, any student on progress probation whose most recent semester demonstrated that fewer than 50 percent of his/her units were "W", "I", and "NC" shall not be disqualified but shall be continued on progress probation.

**Appeal for reinstatement:** When notified of disqualification, a student will be informed about appeal procedures, through the Counseling Division office.

Any student disqualified from a college within the Coast Community College District may be dismissed for a minimum of one semester. A student dismissed from one district college shall not attend another district college during the semester of disqualification. (Title 5, Section 55756)



### **Middle College High School**

Orange Coast College's Middle College High School provides a challenging environment on OCC's campus for high school juniors and seniors. The school is a unique collaboration between Orange Coast College and the Newport-Mesa Unified School District.

Middle College High School provides high school juniors and seniors with a supportive and academically challenging atmosphere. It is designed specifically for students who, for a variety of reasons, may not be performing up to their full potential in a traditional high school setting. Classes are small, and individual attention is emphasized. High school classes are conducted from 7:35 am until 2:00 pm.

MCHS is a unique, full-time high school; students must enroll in five high school classes and one or two college courses (exceptions only with administrative approval). Students must live in Costa Mesa or Newport Beach, be in 11th or 12th grade and near grade level in credits.

Because students have access to a host of Orange Coast College resources, many will graduate from the program at the end of their senior year with a substantial number of college units to their credit. Those units will apply at OCC, or will transfer directly to another college or university.

For more information, please the Middle College High School Counseling Office at (714) 432-5732.



# Graduation Requirements

## *CONTINUOUS ATTENDANCE AND CATALOG RIGHTS:*

For graduation (AA Degree or AS Degree) students may follow the catalog requirements that were in effect for the academic year when their attendance began at Orange Coast College or follow the catalog requirements in effect during subsequent years of attendance provided that continuous enrollment has been maintained.

Continuous enrollment is defined as enrollment in a course at Orange Coast College for at least one semester in a calendar year. The student must receive a grade of A, B, C, D, F, CR, NC, W, I or IP for the course.

Exceptions: Absence due to an approved leave or to attend another accredited institution of higher education shall not be considered an interruption in attendance. This absence cannot exceed two calendar years.

The Academic Petition Council may authorize or require substitutions for discontinued courses.

Catalog rights do not apply to the certification of general education for transfer. Students must follow the GE pattern in effect when they petition for certification. Courses used for certification must be on the approved list at the time they are taken.

## Associate in Arts Graduation Requirements - 2006-2007

Orange Coast College grants the degree of Associate in Arts. This degree may be conferred on students who complete their college work at Orange Coast College or who prepare to transfer to a 4-year institution.

In accordance with law and with rules and regulations of the Board of Governors of the California Community Colleges and the Board of Trustees of the Coast Community College District, the requirements for the degree of Associate in Arts include the following:

### 1. UNIT REQUIREMENT:

60 UNITS, with at least a 2.0 grade point average. At least 12 of the units must be earned at OCC and a student must be enrolled at the time of application for graduation. Units earned at an accredited college or university on a credit/no credit basis will be counted toward the degree requirements of the college, to a maximum of 15 units.

### 2. MAJOR REQUIREMENT:

This requirement can be satisfied in one of the following ways:

A. All courses required in a career program (see list in the Career Program section of the catalog), **OR**

B. At least 18 semester units of study taken from one of the following disciplines:

Anthropology	Humanities
Art	Industrial Technology
Business	Journalism
Communications	Liberal Arts
Dance	Music
Economics	Philosophy
English	Photography
Family & Consumer Sciences	Physical Education
Film/Video	Political Science
Food and Nutrition	Psychology
Foreign Language	Religious Studies
Geography	Social Science
Health	Sociology
History	Speech Communication
	Theatre Arts

If a student chooses this option, a plan must be developed with a counselor and placed on file in the student's counseling folder prior to petitioning for graduation. All courses must be numbered 100 or above, **OR**

C. 40 units toward the completion of the general education requirements for any branch of the University of California or any accredited institution, **OR**

D. Completion of the CSU General Education Breadth Requirements, **OR**

E. Completion of the Intersegmental General Education Transfer Curriculum (IGETC).

### 3. GENERAL EDUCATION REQUIREMENT:

Complete either Option 1, Option 2 or Option 3.

### 4. AMERICAN INSTITUTIONS REQUIREMENT:

Some of the courses listed in this requirement can also be used to meet General Education Requirements in Options 1, 2 and 3.

American Studies 100 **OR**

Political Science 180 or 180H AND  
History 100 or 170 or 170H or 175 or 175H or 177 or Economics 177

### 5. BEHAVIORAL SCIENCE REQUIREMENT:

The courses listed in this requirement can also be used to meet General Education Requirements in Options 1, 2 and 3.

Select one course from the following:

Human Development 180  
Psychology 100, 220, 260

### 6. MATHEMATICS REQUIREMENT:

Some of the courses listed in this requirement can also be used to meet General Education Requirements in Options 1, 2 and 3.

Place at the Math 030 level (or higher) on the math placement test administered by the OCC Assessment Center **OR**

Successfully complete (grade of "C" or better or "credit") one of the following courses:  
Electronics Technology 047, Psychology 160, Technology 040, Machine Technology 121, any math course except N005, N008, N009, N021 and 220

### 7. PHYSICAL EDUCATION AND DANCE REQUIREMENT:

Some of the courses listed in this requirement can also be used to meet General Education Requirements in Options 1 and 2.

A minimum of 1 unit of physical education, or dance, or marine activities (must be an activity course).

### 8. AMERICAN CULTURAL DIVERSITY REQUIREMENT:

Some of the courses listed in this requirement can also be used to meet General Education Requirements in Options 1, 2 and 3.

Select one or more courses from the following totaling 3 units:

Anthropology 100, 100H, 102, 110, 150, 190, Art 108, Dance 130A, 133A, 135A, 136A, 137A, 138A, Early Childhood 126, English 152, 173, Ethnic Studies 100, 150, Fashion 125, Food and Nutrition 185, History 101, 110, 150, Philosophy 110, 120, Psychology 105, Religious Studies 110, 120, 140, 150, 160, 185, Sociology 115, 150, 180, 180H, 190, Speech Communication 155

**PETITION FOR GRADUATION:** Students are required to petition for graduation and Certificates of Achievement at the beginning of the semester in which they will be completing their final requirements as follows:

#### SUMMER GRADUATION

Petition June 1 through July 15

#### FALL GRADUATION

Petition August 1 through October 15

#### SPRING GRADUATION

Petition December 1 through March 15

## AA General Education - Option 1

### Orange Coast College General Education Requirements for the AA Degree 2006-2007

A minimum of 24 units distributed among the following. One course may not be used to meet two separate requirements.

#### AREA A: LANGUAGE AND RATIONALITY

6 semester units (or 8-10 quarter units) to include English 100 and one course from Group 2. It is strongly recommended that students begin the composition requirement within their first 12 units of coursework.

##### 1. Composition

English 100 with a grade of "C" or better

##### 2. Communication and Analytical Thinking

Business 139  
 Computer Science 115  
 Digital Media Arts and Design 181  
 Electronic Technology 047  
 English 101, 101H, 102, 102H, 105, 109  
 Mass Communications 100  
 Machine Technology 121  
 Any Math course **except** N005, N008, N009, N021  
 Philosophy 150, 220  
 Psychology 160  
 Speech Communication 100, 110, 120, 130  
 Technology 040

#### AREA B: PHYSICAL AND BIOLOGICAL SCIENCE

4 semester units (or 6-8 quarter units) including a lab **OR** 6 semester or 9 quarter units of lecture-only courses. Lab courses are underlined.

Anthropology 185, 185&185L  
 Astronomy 100, 100H, 100&100L, 100H & 100L, 101, 102, 103  
 Biology 100, 114, 125, 181, 181H, 182, 182&182L, 183, 183 & 183L, 210, 220, 220H, 221  
 Chemistry 100, 100&100L, 110, 130, 180  
 Ecology 100  
 Food and Nutrition 195  
 Geography 180, 180H, 180&180L, 180H&180L  
 Geology 100, 100H, 100&100L, 100H&100LH, 100&100LH, 100H&100L, 106, 160, 180, 185, 185&185L  
 Marine Science 100, 100&100L, 100H&100LH, 100&100LH, 100H&110L, 180, 180&180L, 185, 185&185L  
 Natural Science 100, 100&100LA, 100&100LG, 110, 112  
 Ornamental Horticulture 100  
 Physics 110, 110&111, 120, 130, 185  
 Psychology 250

#### AREA C: HUMANITIES

A minimum of 3 semester units (or 4-5 quarter units) to include one course from Group 1 and one course from Group 2.

##### 1. Theory

Anthropology 190  
 Architectural Technology 290, 296  
 Art 100, 100H, 101, 101H, 102, 103, 104, 107, 108  
 Dance 160, 170, 200  
 English 119, any literature course 141 through 285  
 ESL 121A, 125A, 131A, 135A, 151A, 155A, 157A, 160A, 199A  
 Film/Video 100, 103, 150  
 Foreign Language - any course numbered 180 through 285  
 History 150, 180, 180H, 185, 185H  
 Humanities 100, 101, 101H  
 Interior Design 180, 190  
 Mass Communication 100  
 Music 100, 105, 109, 170, 173, 180  
 Philosophy 100, 110, 115, 118, 120, 150, 165, 185  
 Photography 101, 130  
 Religious Studies 100, 110, 115, 120, 130, 140, 150, 180  
 Speech Communication 120  
 Theater Arts 100, 101, 105

##### 2. Active Participation

Art 110, 115, 120, 120H, 125, 141, 142A, 145, 147, 150, 263A, 269  
 Construction Technology 116A  
 Dance 101A, 106A, 107A, 110A, 115A, 118A, 120A, 125A, 130A, 133A, 135A, 136A, 137A, 138A, 150A, 160, 195A, 203A, 211A  
 Digital Media Arts and Design 181  
 English 119, 121A, 122A, 124A, 126A, 127A, 131  
 Film/Video 110  
 Music 115, 116, 120A, 129A, 132A, 133A, 140A, 141, 144A, 145, 150A, 230A, 233A, 234A  
 Photography 120  
 Speech Communication 110, 120, 150A  
 Theatre Arts 106, 110A, 170A

#### AREA D: SOCIAL AND BEHAVIORAL SCIENCE

A minimum of 9 semester units (or 12-15 quarter units) to include Option A or B in Group 1, and one course from Group 2 and one course from Group 3.

##### 1. U.S. History and Constitution and American Ideals

a. American Studies 100 **OR**  
 b. Political Science 180 or 180H **AND** one of the following courses: History 100 or 170 or 170H or 175 or 175H or 177, Economics 177

##### 2. Social and Economic Institutions

Anthropology 100, 100H, 102, 105, 110, 150, 280, 285  
 Economics 100, 180, 185  
 Ethnic Studies 100, 150, 190  
 Gender Studies 100, 120, 130, 150, 165, 187  
 Geography 100, 100H, 160, 185  
 History 101, 102, 102H, 103, 103H, 110, 115, 128, 140, 145, 179, 180, 180H, 185, 185H, 187, 190, 195, 197, 198  
 Political Science 101, 110, 185  
 Sociology 105, 115, 150, 180, 180H, 185, 185H, 190, 296  
 Speech Communication 165

##### 3. Behavioral Science

Human Development 180  
 Psychology 100, 220, 260

#### AREA E: LIFE SKILLS

One course from:

Accounting 100  
 Allied Health 130  
 Anthropology 105  
 Business 100, 105, 120, 125\*  
 Computer & High Technology 100  
 Computer Information Systems 100, 122  
 Computerized Office Technology 109, 111A, 113  
 Construction Technology 110A  
 Counseling 102, 110, 120, 135  
 Economics 110  
 Emergency Medical Technology 100  
 English 104, 124A  
 Family & Consumer Science 180  
 Fashion 170  
 Food & Nutrition 136, 140, 170, 185  
 Health Education 100, 111, 112, 122, 134, 136  
 Human Development 190  
 Interior Design 100  
 Leadership Studies 150A  
 Philosophy 120  
 Physical Education 134  
 Psychology 110, 140, 165  
 Religious Studies 120  
 Sociology 105, 110, 165  
 Speech Communication 100, 155, 170

\* Does not meet requirement in mathematics for graduation

## AA General Education - Option 2

### General Education Breadth Requirements for California State University (CSU) 2006-2007

To earn a Bachelor's degree from the California State University, each student must complete 48-51 semester units in general education. 9-12 of these units must be taken as upper division course work after transfer. Orange Coast College will certify the extent to which the lower division General Education Breadth Requirements have been met for students meeting the following A-E pattern. Students seeking certification must complete at least 12 of these units at OCC.

Any one course may be used to satisfy only one required sub-area (i.e. if Speech 110 is used to satisfy sub-area A1, it may not be used to satisfy sub-area C2), with the exception of Area B where lab courses taken to meet the B3 requirement will also count in B1 or B2. A cross-listed course (the same course listed under more than one department such as History 150 and Ethnic Studies 150) may be used to meet only one requirement.

**IMPORTANT NOTE:** Courses on this list are approved for a specific academic term. Students wishing to use a course to meet a CSU GE Breadth requirement must be sure that the course is approved for the academic term in which it is taken. **THIS LIST IS VALID ONLY FOR COURSES TAKEN FALL 2006 THROUGH SUMMER 2007.** For courses taken prior to Fall 2006, students should check the master list which shows the dates that courses were added or deleted since the original list was published in 1991. This list is available in the Counseling Center or Transfer Center.

#### AREA A: COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING

9 semester units (or 12-15 quarter units) including one course from each sub-area with a grade of "C" or better.

##### A1 Oral Communication

Speech Communication 100, 110

##### A2 Written Communication

English 100

##### A3 Critical Thinking

English 101, 101H, 102, 102H, 109@  
Mathematics 220  
Philosophy 150, 220  
Speech Communication 130

#### AREA B: PHYSICAL UNIVERSE AND ITS LIFE FORMS

A minimum of 9 semester units (or 12-15 quarter units) including at least one course from each sub-area. Must include at least one laboratory course. Lab courses are underlined. Natural Science 100, with a lab, (Natural Science 100LA or 100LG) will satisfy B1, B2 and B3.

##### B1 Physical Science

Astronomy 100, 100H, 100&100L,  
100H & 100L, 101, 102, 103  
Chemistry 100, 100&100L, 110, 130,  
180  
Geography 180, 180H, 180&180L,  
180H&180L  
Geology 100, 100H, 100&100L, 100H  
& 100LH, 100H & 100LH, 100H &  
100L, 106, 160, 180, 185, 185&185L  
Marine Science 185, 185&185L  
Natural Science 100, 100 & 100LA,  
100 & 100LG, 110, 110&100LA, 112  
Physics 110, 110&111, 120, 130, 185

##### B2 Life Science

Anthropology 185, 185&185L  
Biology 100, 125, 181, 181H, 182,  
182&182L, 183, 183&183L, 210,  
220, 220H, 221  
Ecology 100  
Marine Science 100, 100H,  
100&100L, 100H&100LH,  
100&100LH, 100H&100L, 180  
180&180L  
Natural Science 100  
Ornamental Horticulture 100  
Psychology 250

##### B3 Laboratory Activity

One of the courses taken in Area B1 or B2 must include a lab. Lab courses are underlined.

##### B4 Mathematical Concepts

One course from the following with a grade of "C" or better.  
Mathematics 100, 103, 104, 106,  
120, 130, 154, 157, 160, 160H,  
170, 180, 180H, 182H, 185, 185H,  
230, 235, 260, 280, 280H, 285,  
285H, 290H  
Psychology 160

#### AREA C: ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE

A minimum of 9 semester units (or 12-15 quarter units) with at least one course in C1 and one course in C2.

##### C1 Arts

Architectural Technology 290, 296  
Art 100, 100H, 101, 101H, 102, 103,  
104, 107, 108, 110, 120, 125,  
141, 142A, 145, 147, 150, 263A,  
269  
Dance 101A, 107A, 110A, 120A, 125A,  
130A, 133A, 150A, 160, 200, 211A  
Digital Media Arts and Design 181  
Film/Video 100, 103, 150  
Humanities 100#  
Interior Design 180, 190  
Music 100, 105, 109, 115, 116, 129A,  
140A, 141, 144A, 145, 170, 173,  
180  
Photography 101, 120, 130  
Theatre Arts 100, 101, 105, 106, 110A,  
170A

**C2 Humanities**

Anthropology 190  
 English 119, 141, 143, 148, 150, 151, 152, 156, 160, 161, 165, 170, 172, 175, 176, 280, 285  
 Ethnic Studies 100  
 French 180, 185, 280, 285  
 German 180, 185, 280, 285  
 Hebrew 180  
 History 101, 102, 102H, 103, 103H, 180, 180H, 185, 185H  
 Humanities 100#, 101, 101H  
 Italian 180, 185, 280, 285  
 Japanese 180, 185, 280, 285  
 Mass Communications 100@  
 Mathematics 220  
 Philosophy 100, 110, 115, 118, 120, 165, 185, 220  
 Religious Studies 100, 110, 115, 120, 130, 140, 150, 180  
 Spanish 180, 180H, 185, 185H, 280, 280H, 285  
 Speech Communication 110, 120, 150A  
 Vietnamese 180, 185

# This course will satisfy either C1 or C2

**AREA D: SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR; HISTORICAL BACKGROUND**

A minimum of 9 semester units (or 12-15 quarter units) with courses from at least two sub-areas

**D1 Anthropology**

Anthropology 100, 100H, 102, 105, 110, 190, 280, 285

**D2 Economics**

Economics 100, 110, 180, 185

**D3 Ethnic Studies**

Anthropology 150  
 Ethnic Studies 100, 150, 190  
 History 101, 150  
 Sociology 150, 190

**D4 Gender Studies**

Gender Studies 100, 120, 130, 150, 165, 187  
 History 176, 187  
 Speech Communication 165

**D5 Geography**

Geography 100, 100H, 160, 185

**D6 History**

Economics 177  
 History 100, 101, 102, 102H, 103, 103H, 110, 115, 128, 145, 170, 170H, 175, 175H, 177, 179, 180, 180H, 185, 185H, 190, 195, 197, 198

**D7 Interdisciplinary**

Health Education 122  
 Human Development 180  
 Psychology 165 or Sociology 165  
 Speech Communication 155

**D8 Political Science**

Political Science 101, 110, 185

**D9 Psychology**

Psychology 100, 185, 220, 260

**D10 Sociology**

Sociology 105, 110, 115, 180, 180H, 185, 185H

**Activity**

Marine Activities 147A, 148A, 149A, 160A  
 Physical Education 102A, 104A, 105A, 107A, 108A, 109A, 110A, 111A, 112A, 114A, 115A, 119A, 120A, 121A, 122A, 125A, 143A, 146A, 147A, 148A, 149A, 150A, 154A, 155A, 160A, 161A, 167A, 173A, 174A, 177A, 178A, 179A, 190A, 191A, 192A, 194A, 196A, 197A, 198A, 221A, 222A, 226A, 235A, 236A, 237A, 238A, 239A, 240A, 241A, 242A, 243A, 244A, 245A, 246A, 250A, 251A, 252A, 253A, 254A, 257A, 258A, 259A, 260A, 261A, 263A

**AMERICAN INSTITUTIONS REQUIREMENT** (*Not part of CSU GE Breadth. May be completed prior to transfer.*)

**AREA E: LIFE-LONG UNDERSTANDING AND SELF-DEVELOPMENT**

3 semester units (or 4-5 quarter units); no more than 1 unit of activity courses.

**Non-Activity**

Anthropology 105  
 Counseling 110, 120, 135  
 Economics 110  
 Emergency Medical Technology 100  
 English 124A  
 Family & Consumer Science 180  
 Food & Nutrition 136, 140, 170  
 Health Education 100, 112, 134, 136  
 Human Development 180  
 Physical Education 134  
 Psychology 110, 140, 165  
 Sociology 105, 165  
 Speech Communication 100, 170

In addition to the General Education Requirements listed above, all students must complete coursework in American History and Constitution for graduation from CSU. Completion of History 100, 170, 170H, 175, 175H, or 177 or Economics 177 in Area D6 will fulfill part of this requirement. To complete this requirement students must also take:

Political Science 180 or 180H

@ Approval for this course is pending. It has been submitted to CSU for inclusion on the list. Check in the Counseling Center or Transfer Center for a copy of the finalized list which will indicate if the course has been approved. If the course has been approved, it can only be used if it is taken Fall, 2006 or later.

## AA General Education - Option 3

### Intersegmental General Education Transfer Curriculum (IGETC) - 2006-2007

Completion of the Intersegmental General Education Transfer Curriculum (IGETC) will satisfy the lower division general education requirements of either the California State University or the University of California system. The IGETC should be completed in its entirety before transferring or the student may be subject to the general education requirements of the campus to which they have been admitted.

All courses must be completed with grades of "C" or better. Grades of "credit" can be used if "credit" is equal to a "C" or better. There are limits to the number of units that can be taken CR/NC.

Courses used to meet IGETC requirements must be at least 3 semester units or 4 quarter units.

**IMPORTANT NOTE:** Courses on this list are approved for a specific academic term. Students wishing to use a course to meet an IGETC requirement must be sure that the course is approved for the academic term in which it is taken. **THIS LIST IS VALID ONLY FOR COURSES TAKEN FALL 2006 THROUGH SUMMER 2007.** For courses taken prior to Fall 2006, students should check the master list which shows the dates that courses were added or deleted since the original list was published in 1991. This list is available in the Counseling Center or Transfer Center.

#### AREA 1: ENGLISH COMMUNICATION

CSU: Three courses (one from each group). 9 semester units (or 12-15 quarter units).

UC: Two courses (one from Group A and one from Group B). 6 semester units (or 8-10 quarter units).

##### Group A: English Composition

English 100

##### Group B: Critical Thinking-English Composition

English 101 or 101H, 102 or 102H, 109@  
Philosophy 150

##### Group C: Oral Communication (CSU ONLY)

Speech Communication 110

#### AREA 2: MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

One course. At least 3 semester units (or 4-5 quarter units).

Math 130, 154, 157, 160 or 160H, 170,  
180 or 180H, 182H, 185 or 185H, 230,  
235, 260, 280 or 280H, 285 or 285H, 290H

#### AREA 3: ARTS AND HUMANITIES

Three courses, with at least one course from Group A and one from Group B. 9 semester units (or 12-15 quarter units).

##### Group A: Arts

Architectural Technology 290 or 296  
Art 100 or 100H, 101 or 101H, 102, 103,  
104, 107, 108, 110  
Dance 200  
Film/Video 100  
Music 100, 105, 109, 115, 170, 173, 180  
Photography 130  
Theatre Arts 100 or 101, 105

##### Group B: Humanities

Economics 177  
English 141, 143, 148, 150, 151, 152, 156,  
160, 161, 170, 176, 280, 285  
Ethnic Studies 150  
French 185, 280, 285  
Gender Studies 187  
German 185, 280, 285  
History 100#, 101, 102 or 102H, 103 or  
103H, 110, 115, 128, 145, 150,  
170# or 170H#, 175# or 175H#, 177#,  
179, 180 or 180H, 185 or 185H, 187,  
190, 195  
Humanities 100, 101 or 101H  
Italian 185, 280, 285  
Japanese 185, 280, 285  
Mass Communications 100@  
Philosophy 100, 110, 115, 118, 120, 165, 185  
Religious Studies 100, 110, 115, 120, 130,  
140, 150, 180  
Spanish 185 or 185H, 280 or 280H, 285,  
Vietnamese 185

# If this course is being used to meet CSU American Institutions Requirement, it cannot be used to satisfy this area.

#### AREA 4: SOCIAL AND BEHAVIORAL SCIENCES

Three courses from at least two disciplines. 9 semester units (or 12-15 quarter units).

##### 4A Anthropology

Anthropology 100 or 100H, 102, 110,  
150, 190, 280, 285

##### 4B Economics

Economics 100, 180, 185

##### 4C Ethnic Studies

Ethnic Studies 100, 190  
Sociology 190

##### 4D Gender Studies

Gender Studies 100, 187  
History 187

##### 4E Geography

Geography 100 or 100H, 160, 185

##### 4F History

OCC does not have any courses approved in this area. History courses can be used to satisfy Area 3B

##### 4G Interdisciplinary Studies

Human Development 180  
Psychology 165 or Sociology 165  
Speech Communication 155@

##### 4H Political Science

Political Science 101, 110, 180# or  
180H#, 185

##### 4I Psychology

Psychology 100, 185, 220, 260

##### 4J Sociology

Sociology 110, 115, 150, 180 or  
180H, 185 or 185H, 190

# If this course is being used to meet CSU American Institutions Requirement, it cannot be used to satisfy this area.

**AREA 5: PHYSICAL AND BIOLOGICAL SCIENCES**

Two courses, with one from Group A and one from Group B. One of the courses must include a lab. Lab courses are underlined. 7-9 semester units (or 9-12 quarter units).

**Group A: Physical Science**

Astronomy 100 or 100H, 100&100L or 100&100LH, 101, 102, 103

Chemistry 100, 100&100L, 110, 130, 180

Geography 180 or 180H, 180&180L or 180H&180L

Geology 100 or 100H, 100&100L or 100H&100LH or 100&100LH or 100H&100L, 160, 180, 185, 185&185L

Marine Science 185, 185&185L

Natural Science 100#, 100&100LA, 100&100LG, 112

Physics 110, 110&111, 120, 130, 185

**Group B: Biological Science**

Anthropology 185, 185&185L

Biology 100, 125, 181 or 181H, 182, 182&182L, 183, 183&183L, 210, 220 or 220H, 221

Ecology 100

Marine Science 100 or 100H, 100&100L or 100H&100LH or 100&100LH or 100H&100L, 180, 180&180L

Natural Science 100#

Psychology 250

# This course will satisfy either Group A or Group B.

**LANGUAGE OTHER THAN ENGLISH (UC ONLY)**

A. Complete two years of a single high school foreign language with grades of "C" or better (high school transcripts must be on file at OCC), **OR**

B. Complete French, German, Hebrew, Italian, Japanese, Spanish or Vietnamese 180. Advanced courses will validate this requirement, **OR**

C. Earn a satisfactory score on one of the following tests (results must be on file at OCC):

1. SAT II Subject Test in a language other than English (Before 5/95 - score: 500. After 5/95 - Chinese: 520, French: 540, German: 510, Hebrew: 470, Italian: 520, Japanese: 510, Korean: 500, Latin: 530, Spanish: 520).

2. College Board Advanced Placement Examination in a language other than English (score: 3 or better)

3. International Baccalaureate Higher Level Examination in language other than English (score: 5 or better)

4. An achievement test administered by a college or university (score: proficiency equivalent to at least two years of high school language).

**OR**

D. Complete, with grades of "C" or better, two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English (documentation must be on file at OCC).

**AMERICAN INSTITUTIONS REQUIREMENT**

*(Not part of IGETC. May be completed prior to transfer.)*

CSU has an American Institutions requirement that is separate from IGETC. Courses used to meet the CSU requirement cannot be used in Area 3 or 4. To meet the CSU requirement, students should take Political Science 180 or 180H **AND** one of the following courses: History 100, 170, 170H, 175 175H or 177 or Economics 177.

UC requires the completion of a college course or courses with a grade of "C" or better *OR* a one-year course in high school in U.S. history or a half-year course in U.S. history and a half-year course in American government with grades of "C" or better (UCLA requires grades of "B"). UCSB requires the completion of a college course. If you are using college coursework to satisfy this requirement, check the appropriate UC catalog to determine which course(s) to take.

**NOTE:** *Transfer credit for some courses may be limited by the University of California. Please see the UC Transferable Course List available in the Counseling Center or Transfer Center, or the Transfer Center home page on the Internet for these limitations.*

@ *Approval for this course is pending. It has been submitted to UC and CSU for inclusion on the list. Check in the Counseling Center or Transfer Center for a copy of the finalized list which will indicate if the course has been approved. If the course has been approved, it can only be used if it is taken Fall, 2006 or later.*

## Associate in Science Graduation Requirements - 2006-2007

Orange Coast College grants the degree of Associate in Science. Students who complete an approved career program or a discipline major listed below are eligible for this degree.

Transfer students following the CSU General Education Breadth Requirements (CSU GE) should select courses in **bold** print.

Transfer students following the Intersegmental General Education Transfer Curriculum (IGETC) should select courses designated with an asterisk (\*).

Courses designated with an asterisk(\*) and in **bold** will satisfy either transfer pattern.

In accordance with law and with rules and regulations of the Board of Governors of the California Community Colleges and the Board of Trustees of the Coast Community College District, the requirements for the degree of Associate in Science include the following:

### 1. UNIT REQUIREMENT:

60 units with at least a 2.0 grade point average. At least 12 of the units must be earned at OCC and a student must be enrolled at the time of application for graduation. Units earned at an accredited college or university on a credit/no credit basis will be counted toward the degree requirements of the college, to a maximum of 15 units.

### 2. MAJOR REQUIREMENT:

This requirement can be satisfied in one of the following ways:

A. All courses required in a career program approved for the AS degree (see list in the Career Programs section of the catalog) **OR**

B. At least 18 semester units of study taken in one of the following disciplines:

Architecture	Mathematics
Biology	Natural Sciences
Chemistry	Ornamental Horticulture
Engineering	Physics
Geology	

If a student chooses this option, a plan must be developed with a counselor and placed on file in the student's counseling folder prior to petitioning for graduation. All courses must be numbered 100 or above.

### 3. MATHEMATICS REQUIREMENT:

Place at Math 030 level (or higher) on the math placement test administered by the OCC Assessment Center or successfully complete (grade of "C" or better or "credit" ) one of the following courses: Electronics Technology 047, Psychology 160, Technology 040, Machine Technology 121 or any math course except N005, N008, N009, N021 and 220. Some of the courses listed in this requirement can also be used to satisfy Area A2 below.

### 4. GENERAL EDUCATION REQUIREMENT:

A minimum of 18 units distributed among the following. One course may not be used to meet two separate requirements.

#### AREA A – ENGLISH COMMUNICATION

6 semester units (or 8 quarter units) to include one course from A1 and one course from A2.

##### A1 English Composition

English **100\*** with a grade of "C" or better

##### A2 Communication and Analytical Thinking

Business 139  
Computer Science 115  
English **101\***, **101H\***, **102\***, **102H\***, 109  
Mathematics **100**, **103**, **104**, **106**, **120**, **130\***, **154\***, **157\***, **160\***, **160H\***, **170\***, **180\***, **180H\***, **182H\***, **185\***, **185H\*v** **230\***, **235\***, **260\***, **280\***, **280H\***, **285\***, **285H\***, **290H\***  
Philosophy **150\***  
Philosophy/Mathematics **220**  
Psychology **160**  
Speech Communication **100**, **110\***, **130**

**AREA B: PHYSICAL AND  
BIOLOGICAL SCIENCES**

3 semester units (or 4 quarter units).

Anthropology **185\***  
 Astronomy **100\*, 100H\*, 101\*, 102\*, 103\***  
 Biology **100\*, 125\*, 181\*, 181H\*, 182\*, 183\*, 210\*, 220\*, 220H\*, 221\***  
 Chemistry **100\*, 110\*, 130\*, 180\***  
 Ecology **100\***  
 Food and Nutrition **195**  
 Geography **180\*, 180H\***  
 Geology **100\*, 100H\*, 106, 160\*, 180\*, 185\***  
 Health Education **100**  
 Marine Science **100\*, 100H\*, 180\*, 185\***  
 Natural Science **100\*, 110, 112\***  
 Ornamental Horticulture **100**  
 Physics **110\*, 120\*, 130\*, 185\***  
 Psychology **250\***

**AREA C: ARTS AND HUMANITIES**

6 semester units (or 8 quarter units) to include at least one course from C1 and one course from C2.

**C1 Arts**

Architectural Technology **290\*, 296\***  
 Art **100\*, 100H\*, 101\*, 101H\*, 102\*, 103\*, 104\*, 107\*, 108\*, 110\*, 120, 120H, 125, 141, 142A, 145, 147, 150, 263A, 269**  
 Dance **101A, 106A, 107A, 110A, 115A, 118A, 120A, 125A, 130A, 133A, 135A, 136A, 137A, 138A, 150A, 160, 170, 200, 211A**  
 Digital Media Arts and Design **181**  
 Film/Video **100\*, 103, 110, 150**  
 Humanities **100**  
 Interior Design **180, 190**  
 Music **100\*, 105\*, 109\*, 115\*, 170\*, 173\*, 180\***  
 Photography **101, 120, 130\***  
 Theatre Arts **100\*, 101\*, 105\*, 106, 110A, 170A**

**C2 Humanities**

Anthropology **190**  
 English **119, 141\*, 143\*, 148\*, 150\*, 151\*, 152\*, 156\*, 160\*, 161\*, 170\*, 172, 175\*, 176\*, 280\*, 285\***  
 Ethnic Studies **100, 150\***  
 French **180, 185\*, 280\*, 285\***  
 Gender Studies **187\***  
 German **180, 185\*, 280\*, 285\***  
 Hebrew **180**  
 History **100\*, 101\*, 102\*, 102H\*, 103\*, 103H\*, 110\*, 115\*, 128\*, 145\*, 150\*, 170\*, 170H\*, 175\*, 175H\*, 177\*, 179\*, 180\*, 180H\*, 185\*, 185H\*, 187\*, 190\*, 195\***  
 Humanities **100\*, 101\*, 101H\***  
 Italian **180, 185\*, 280\*, 285\***  
 Japanese **180, 185\*, 280\*, 285\***  
 Mathematics **220**  
 Mass Communications **100**  
 Philosophy **100\*, 110\*, 115\*, 118\*, 120\*, 165\*, 185\*, 220**  
 Religious Studies **100\*, 110\*, 115\*, 120\*, 130\*, 140\*, 150\*, 180\***  
 Spanish **180, 185\*, 185H\*, 280\*, 280H\*, 285\***  
 Speech Communications **110, 120, 150A**  
 Vietnamese **180, 185\***

**AREA D: SOCIAL AND  
BEHAVIORAL SCIENCES**

3 semester units (or 4 quarter units).

American Studies **100**  
 Anthropology **100\*, 100H\*, 102\*, 105, 110\*, 150\*, 190\*, 280\*, 285\***  
 Economics **100\*, 110, 177\*, 180\*, 185\***  
 Ethnic Studies **100\*, 150, 190\***  
 Gender Studies **100\*, 120, 130, 150, 165, 187\***  
 Geography **100\*, 100H\*, 160\*, 185\***  
 Health Education **122**  
 History **100, 101, 102, 102H, 103,**

**103H, 110, 115, 128, 145, 170, 170H, 175, 175H, 177, 179, 180, 180H, 185, 185H, 187\*, 190, 195, 197, 198**

Human Development **180\***  
 Political Science **101\*, 110\*, 180\*, 180H\*, 185\***  
 Psychology **100\*, 165\*, 185\*, 220\*, 260\***  
 Sociology **105, 110\*, 115\*, 150\*, 165\*, 180\*, 180H\*, 185\*, 185H\*, 190\***  
 Speech Communication **155\*, 165**

**PETITION FOR GRADUATION:** Students are required to petition for graduation at the beginning of the semester in which they will be completing their final requirements as follows:

**SUMMER GRADUATION**

Petition June 1 through July 15

**FALL GRADUATION**

Petition August 1 through October 15

**SPRING GRADUATION**

Petition December 1 through March 15



---

## **Transfer Information**

This section of the catalog is designed to help students plan an academic program for transfer to a four-year college or university. It includes information about the transfer process as well as general education and lower division major requirements.

Since transfer requirements change frequently, students should meet with a counselor regularly to plan an academic program which will assure a smooth transition to the transfer institution of their choice.

Four year colleges and universities often make changes in their requirements. The requirements listed in this section were updated at the time of publication; however, changes may have occurred after publication. Current Transfer Curriculum Guides and official articulation agreements are available in the Transfer Center, the Counseling Center and on the Internet.

## Transfer to a Four Year College or University

Orange Coast College provides the first two years of a four year college or university program. Students enrolled in a transfer program will complete most of their general education and lower division major requirements before transferring. Students who are planning to transfer to a four year college or university should meet with a counselor in the Counseling Center to develop a Student Educational Plan which will identify the courses needed to transfer.

## Transfer Center

The Transfer Center which is located in Watson Hall provides information and assistance to students who are preparing to transfer to four year colleges and universities. Representatives from four year schools are available in the Transfer Center to meet with students individually and provide information about their programs, requirements and procedures. The Center maintains a complete resource library containing college catalogs and other information on transfer programs. Applications for CSU, UC and several independent colleges and universities are available in the Center. The Transfer Center also sponsors a Transfer Day in the fall semester with representatives on campus from over fifty colleges and universities. College Fairs are held each semester with representatives from Southern California colleges and universities providing information to potential students. Transfer planning workshops are offered throughout the academic year. Organized tours to various four year campuses are also available through the Transfer Center each semester.

## Transfer Center Web page

The Transfer Center web page on the Internet is a rich source of information for potential transfer students. Information at this site includes: a listing of scheduled events and rep visits, transfer course requirements, articulation agreements, transfer planning guides, ratings and evaluations of colleges, financial aid resources, and college search engines. There is also a complete application center which allows students to apply to colleges throughout the country electronically. The site can be reached by going to the "Transfer Information" link on the OCC home page at [www.orange.coastcollege.edu](http://www.orange.coastcollege.edu).

## Transfer Opportunity Program (TOP)

Historically, underrepresented students (African Americans, Latinos and Native Americans) have made up a small percentage of transfer students. The Transfer Opportunity Program at Orange Coast College seeks to increase the pool of eligible underrepresented students and close the gap between minority and majority transfer students. TOP is designed to assist historically underrepresented students transfer to four year colleges and universities. The primary goal of the program is to retain these students and increase the probability of their transfer. Through the program these students are provided with support services including a college success course, information workshops, personal advisement and counseling, tutoring and group study sessions.

## Transferability of Courses

Many courses offered at Orange Coast College will transfer to meet general education, major or elective requirements at four-year colleges and universities.

All courses numbered 100 or above will transfer to **CALIFORNIA STATE UNIVERSITY**.

Courses which are transferable to the **UNIVERSITY OF CALIFORNIA** will be designated in the Courses section of the catalog with a UC at the end of the course description. Some of the courses which are transferable to the University of California have credit limitations. Check the UC Transferable Course List to determine these limitations. This list is available in the Counseling Center and the Transfer Center.

**INDEPENDENT AND OUT-OF-STATE COLLEGES AND UNIVERSITIES** usually accept most courses which are transferable to the University of California and many of the courses acceptable at CSU. Articulation agreements are available for many colleges in the Transfer Center Web Site.

## California Articulation Number (CAN)

The California Articulation Number (CAN) System identifies many of the transferable, lower division, introductory courses commonly taught on California college campuses.

The system assures students that CAN courses at one participating college will be accepted in lieu of the comparable CAN courses on another participating campus. For example: CAN ECON 2 at one college will be accepted for CAN ECON 2 at every other participating college. Each college retains its own numbering system, but adds the CAN designation parenthetically in its publications.

Most colleges throughout the state have qualified courses to use the California Articulation Numbers. Check in the Counseling Center or Transfer Center for current listings of CAN courses and colleges participating in the CAN system.

## ASSIST

ASSIST (Articulation System Stimulating Interinstitutional Student Transfer) is a web-based student transfer information system which contains data about how courses taken at California community colleges can be applied when transferring to a University of California or California State University campus. ASSIST has been designated as the official repository of articulation for California's public colleges and universities and therefore provides the most accurate and up-to-date information available.

It includes information such as:

**UC Transferable Courses** - These agreements list courses from California community colleges that transfer to all University of California campuses.

**CSU Transferable Courses** - These agreements identify courses from California community colleges that transfer to any CSU campus for credit.

**CSU GE Breadth Courses** - These agreements list courses from California community colleges that can be used to satisfy CSU GE Breadth requirements.

**IGETC (intersegmental General Education Transfer Curriculum) Courses** - These agreements list courses from California community colleges that apply to the IGETC requirements.

**Articulation Agreements** - These agreements between a particular California community college and a four year institution identify comparable lower division courses between the two institutions. These agreements are designed to help students prepare for transfer into a particular major at a specific institution. ASSIST can be accessed at [www.assist.org](http://www.assist.org).

## Course Requirements for Transfer Students

A student can transfer from Orange Coast College to a four-year college or university as a junior without loss of time or credits by completing the following:

- 1. Lower Division Major Requirements.** These courses should be completed before transferring. They provide background and preparation in order to concentrate on the major beginning in the junior year. Course requirements for specific majors and schools are listed in the Transfer Curriculum Guides. These Guides are available in the Counseling Center and Transfer Center.
- 2. General Education Requirements.** These are the courses required of everyone to obtain a degree regardless of major. They are designed to provide students with the knowledge, skills and understanding which will enable them to function as intelligent and creative members of the community. Courses in writing, critical thinking, mathematics, sciences, arts and humanities and the social sciences are included in general education.
- 3. Electives.** These are transferable courses of choice taken in addition to courses for the major and general education requirements.

## Lower Division Major Requirements

Most majors at four year colleges and universities require the completion of one or more lower division courses as preparation for upper division coursework. Orange Coast College offers courses to meet the lower division requirements for most majors at most four-year schools.

Transfer Curriculum Guides are available that list the requirements for specific majors at UC Berkeley, UC Irvine, UC Los Angeles, UC San Diego, UC Santa

Barbara, CSU Fullerton, CSU Long Beach, Cal Poly Pomona, San Diego State, San Francisco State, Cal Poly San Luis Obispo, Chapman and USC. Additional schools are included on most of the Guides. The Guides are available in the Counseling Center, the Transfer Center and on the Transfer Center website. The Transfer Center website can be located by clicking on the transfer Information link on the OCC home page at [www.orangecoast-college.edu](http://www.orangecoast-college.edu).

Students should check the catalog of the transfer college and meet with their counselor for additional information about major programs and requirements.

The courses listed below are required for the major at most four year schools; however, many colleges require additional coursework to complete the lower division major requirements. The course information given below has been edited for catalog publication purposes and may not accurately reflect recent changes or total course requirements for particular programs or schools. Check the Transfer Curriculum Guides to obtain a complete and updated course listing for each school.

### Advertising

Mass Communications 100

Additional coursework may be required in Communications, Economics, Marketing and/or Political Science.

### Anthropology

Anthropology 100(or 100H), 185/185L, 280

Additional coursework may be required in Biology, Chemistry, Computer Science and/or Physics.

### Architecture/Landscape Architecture

Architecture 105, 110, 115, 180, 185, 205, 215

Additional coursework may be required in Architecture, Art, Drafting, Engineering, English, Mathematics and/or Physics. Landscape Architecture requires coursework in Ornamental Horticulture.

### Art

Art 100(or 100H), 101(or 101H), 110, 111, 120(or 120H)

Additional coursework may be required in Art, Film and/or Photography

### Biology

Biology 181(or 181H), 185\*, Chemistry 180, 185, 220/221, 225/226, Physics 130, 135, Math 180(or 180H), 185(or 185H)

Additional coursework may be required in Biology and/or Mathematics. Some schools will accept Physics 120 & 125 instead of 130 & 135.

\* Biology 182/182L and 183/183L can be substituted at some schools. Some schools require 182/182L & 183/183L instead of 185. Check current Transfer Curriculum Guide for latest information.

### Business (CSU)

Accounting 101, 102, Business 110, Economics 180, 185, Computer Science 111, Math 130 or 154, Math 157

Additional coursework may be required in Accounting, Business, Computer Science, Mathematics and/or Philosophy. CSU Fullerton requires Accounting 110 in addition to 101 & 102. CSULB requires Math 154 and 157.

### Business (UC and Independent)

See Transfer Curriculum Guide for requirements.

### Chemistry

Chemistry 180, 185, 220/221, 225/226, Mathematics 180(or 180H), 185(or 185H), 280(or 280H), Physics 185, 280, 285

Additional coursework may be required in Biology, Chemistry and/or Mathematics.

### Child Development

Human Development 180

Additional coursework may be required in Biology, Early Childhood, Food and Nutrition, Human Development, Psychology and/or Sociology.

### Communications

See Transfer Curriculum Guide for requirements.

### Computer Science

See Transfer Curriculum Guide for requirements.

### Criminal Justice and Law

See Transfer Curriculum Guide for requirements.

### Dance

See Transfer Curriculum Guide for requirements.

## **Economics**

Economics 180, 185, Mathematics 180(or 180H), 185(or 185H)

Additional coursework may be required in Accounting, Business and/or Mathematics

## **Engineering**

See Transfer Curriculum Guide for requirements.

## **English**

English 100, 101(or 101H), 280, 285

Additional coursework may be required in Communications, English, Foreign Language, History, Philosophy and/or Speech

## **Environmental Studies**

See Transfer Curriculum Guide for requirements.

## **Family and Consumer Science**

See Transfer Curriculum Guide for requirements.

## **Film**

See Transfer Curriculum Guide for requirements.

## **Food Science and Nutrition**

See Transfer Curriculum Guide for requirements.

## **Foreign Languages**

Foreign Language through 285.

## **Forestry/Natural Resources Management**

Biology 181, 185 or 182/182L & 183/183L, Chemistry 180, Mathematics 180(or 180H)

Additional coursework may be required in Anthropology, Biology, Computer Science, Chemistry, Ecology, Economics, Geology, History, Mathematics, Physics and/or Political Science.

## **Geography**

Geography 180(or 180H), 185

Additional coursework may be required in Biology, Chemistry, Economics, Geography, Marine Science, Mathematics and/or Political Science.

## **Geology**

Chemistry 180, 185, Geology 180, 185/185L, Mathematics 180(or 180H), 185(or 185H), Physics 185, 280, 285

Additional coursework may be required in Biology, Chemistry, Geology and/or Mathematics.

## **Health Sciences**

See Transfer Curriculum Guide for requirements.

## **History**

See Transfer Curriculum Guide for requirements.

## **Hotel and Food Service Management**

Accounting 101, 102, Computer Science 111, Culinary Arts/Food Service Management/Hotel 100, Economics 180, 185

Additional coursework may be required in Biology, Business, Chemistry, Culinary Arts, Food and Nutrition, Food Service Management, Mathematics, Philosophy, Psychology, Sociology and/or Speech.

## **Interior Design**

See Transfer Curriculum Guide for requirements.

## **Journalism**

Mass Communications 100, Journalism 110

Additional coursework may be required in Computer Information Systems, Economics, Film and/or Photography.

## **Liberal Studies**

See Transfer Curriculum Guide for requirements.

## **Marine Science/Oceanography**

Biology 181, 185 or 182/182L & 183/183L, Chemistry 180, 185, Mathematics 180(or 180H), 185(or 185H), Physics 130, 135

Additional coursework may be required in Biology, Chemistry, Computer Science, Geology, Marine Science and/or Mathematics.

## **Mathematics**

Mathematics 180(or 180H), 185(or 185H), 280(or 280H), 285(or 285H)

Additional coursework may be required in Chemistry, Computer Science, Mathematics and/or Physics.

## **Music**

Music 180, 185, 280, 285

Majors must demonstrate keyboard proficiency. Additional coursework may be required in Foreign Language and/or Music.

## **Ornamental Horticulture**

Biology 183/183L, Chemistry 180, 185, Ornamental Horticulture 181, 182, 183

Additional coursework may be required in Biology, Business, Chemistry, Computer Science and/or Mathematics.

## **Philosophy**

See Transfer Curriculum Guide for requirements.

## **Physical Education and Recreation**

See Transfer Curriculum Guide for requirements.

## **Physics/Astronomy**

Mathematics 180(or 180H), 185(or 185H), 280(or 280H), Physics 185, 280, 285

Additional coursework may be required in Astronomy, Chemistry, Computer Science and/or Mathematics.

## **Political Science**

Political Science 180(or 180H), 185

Additional coursework may be required in Computer Science, Economics, History, Mathematics and/or Political Science.

## **Psychology**

Psychology 100, 280, Psychology 160 or Mathematics 160(or 160H)

Additional coursework may be required in Anthropology, Biology, Computer Science, Chemistry, Mathematics, Philosophy, Physics, Psychology and/or Sociology.

## **Public Relations**

Mass Communications 100, Journalism 110

Additional coursework may be required in Computer Information Systems, Economics, Film, Marketing, Photography and/or Political Science.

## **Religious Studies**

See Transfer Curriculum Guide for requirements.

## **Social Ecology**

Mathematics 160(or 160H), Psychology 100, 280, Sociology 180(or 180H)

## **Social Science**

See Transfer Curriculum Guide for requirements.

## **Social Work**

Mathematics 160(or 160H), Psychology 100, Sociology 180(or 180H)

Additional coursework may be required in Anthropology, Economics, History, Philosophy, Political Science, Psychology, Sociology and/or Speech.

## **Sociology**

Sociology 180(or 180H)

Additional coursework may be required in Anthropology, Computer Science, History, Mathematics, Psychology and/or Sociology.

### Speech and Communicative Disorders

See Transfer Curriculum Guide for requirements.

### Teaching

Students wishing to teach in the public schools in California must obtain the appropriate credential. Both the Multiple Subjects Credential and the Single Subject Credential require the completion of specific coursework. The completion of a teaching credential program usually requires five years of college. Most of the lower division coursework required for these programs is offered at OCC.

### TEACH<sup>3</sup>

In conjunction with CSU Long Beach, OCC offers the first two years of the Integrated Teacher Education Program (ITEP). This is a fast track program which allows students to complete the requirements for the Multiple Subjects Teaching Credential in four years rather than five. Students in this program will earn their Bachelor of Arts degree and California Teaching Credential by taking courses designed especially for future elementary school teachers. Students will have the opportunity to participate in learning communities with their peers and college faculty and gain real classroom experience from the beginning. In addition they will be given specialized academic and professional advising. Further information about this innovative program is available in the TEACH<sup>3</sup> Office.

### Technology

See Transfer Curriculum Guide for requirements.

### Theatre Arts

Theatre Arts 106, 107

Additional coursework is required in Theatre Arts.



## Certification of General Education for Transfer to UC or CSU

Upon a student's request Orange Coast College will verify the completion of lower division general education requirements for transfer to the University of California (Intersegmental General Education Transfer Curriculum) or the California State University (either the CSU General Education Breadth Requirements or the Intersegmental General Education Transfer Curriculum). Students who transfer without certification will have to meet the general education requirements of the specific UC or CSU campus to which they are transferring. Meeting these requirements usually necessitates taking additional courses.

Both CSU GE Breadth and the IGETC should be completed in their entirety prior to transfer. Students can request partial certification of CSU GE Breadth sub-areas if all requirements within the sub-area are met. Students using the IGETC who are unable to complete one or two courses may

petition to complete it after transferring if they have good cause. Typical situations which constitute good cause include illness, unavailable or cancelled courses, military service and unexpected hardships experienced in the final term before transfer. Petitions are available in the Transfer Center and must be submitted during the final term before transfer.

Students who have taken courses at other colleges can have these courses "passed along" in the certification process. Orange Coast College will certify courses taken at other California community colleges and CSU in the areas designated by the offering college. Courses taken at California four year colleges or out-of-state two year or four year colleges will be certified if they are equivalent to courses on the IGETC or CSU GE Breadth list. Courses from foreign institutions cannot be used in the certification process.

Students requesting CSU GE Breadth certification must complete at least 12 of the 39 required units at OCC.

OCC will certify courses only once. 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 Records Office when final transcripts are sent to UC or CSU. Courses taken at other colleges after a student has left OCC will not be certified.

A course used in the certification process must be on either the IGETC or the CSU GE Breadth list during the term in which it is taken. If a course is taken before it is approved for inclusion on the list, it cannot be certified. Similarly, a course which is taken after it has been removed from the list cannot be certified.

OCC will also certify the completion of the CSU American Institutions Requirement for students following either IGETC or CSU GE Breadth.

### **Admission Procedures for Four-Year Colleges and Universities**

Students should take the following steps in applying for admission:

1. Submit application during the filing period. Do not send it early as it will not be accepted before the initial filing date. Sending it early will only delay processing.
2. If entrance exams (SAT, ACT) are required, register for them as soon as possible and at least six months in advance of transfer. Registration forms are available from the Assessment Center located in OCC's Special Services Building. Most four year schools do not require entrance exams for transfer students.
3. Have the OCC Records Office send a copy of your Orange Coast College transcript to the transfer college as requested. Four year colleges and universities will also require transcripts of coursework completed at all other educational institutions. Students must contact each school attended and request that official transcript be sent directly.

### **CALIFORNIA STATE UNIVERSITY**

California State University has 23 campuses located throughout the state. While each campus within the system has its own unique geographic and curricular character, all campuses offer undergraduate and graduate instruction for professional and occupation goals as well as broad liberal education. The CSU offers more than 1,500 bachelor's and master's degrees in some 200 subject areas. Campuses are located at Bakersfield, Channel Islands, Chico, Dominguez Hills, Fresno, Fullerton, Hayward, Humboldt, Long Beach, Los Angeles, Monterey Bay, Northridge, Pomona (Cal Poly), Sacramento, San Bernardino, San Diego, San Francisco, San Jose, San Luis Obispo (Cal Poly), San Marcos, Sonoma and Stanislaus and Vallejo (California Maritime Academy).

### **California State University – Admission Requirements for Transfers**

Students who transfer with 59 or fewer transferable semester units are considered lower division transfer students.

Students who transfer with 60 or more transferable semester units are considered upper division transfer students.

### **Lower Division Transfer Admission Requirements:**

You are eligible if you:

1. Have a college GPA of 2.0 or better in all transferable units attempted.
2. Are in good standing at the last college or university attended.
3. Meet the admission requirements for a first-time freshman or have successfully completed necessary courses to make up the deficiencies you had in high school if you did not complete the 15-unit pattern of college preparatory subjects.
4. Meet the eligibility index (GPA and SAT/ACT scores) required for a freshman.
5. Some campuses may require the completion of English Composition and general education Math.

6. Many campuses do not admit lower division transfers.

### **Upper Division Transfer Admission Requirement**

You are eligible for admission if you:

1. Have a college GPA of 2.0 or better (2.4 for non-California residents) in all transferable coursework.
2. Are in good standing at the last college attended.
3. Have completed or will complete prior to transfer at least 30 semester units of courses equivalent to general education requirements with a grade of C or better in each course. The 30 units must include the general education requirements in communication in the English language (English composition, oral communication and critical thinking) and one course of at least 3 units in college level mathematics.

### **Lower-Division Transfer Patterns (LDTP)**

The Lower Division Transfer Pattern (LDTP) project, sponsored by the California State University (CSU) and supported by the California Community Colleges, presents potential transfer students with the most direct path to a bachelor's degree in the CSU system. The LDTP project provides a set of "Road maps" for students to follow that will ensure appropriate academic preparation and that will decrease time to graduation once LDTP students enter the CSU. Student may enter into an LDTP agreement up to the time they have completed 45 transferable units. Students who elect to follow the LDTP option will receive the highest priority for admission to a CSU campus. For more information on the CSU LDTP contact the Transfer Center.

### **4CSU Priority Admissions Channel for Transfers - CSU Fullerton**

The 4CSU PACT program guarantees admission to CSU Fullerton by providing students with a pre-admitted status while completing lower division transfer requirements at OCC. 4CSU students will

be given priority status for application processing, registration and housing. Students who wish to participate in this program must meet with a CSUF representative before they complete 12 transfer level units. Appointments with CSUF reps can be made in the Transfer Center.

## General Education Requirements for California State University

To earn a bachelor's degree from the California State University, each student must complete a program of general education. Orange Coast College offers two general education programs which will enable students to meet the lower division general education requirements for all CSU campuses prior to transfer. Students can complete either the Intersegmental General Education Transfer Curriculum (OCC GE Option 3) or the CSU General Education breadth Requirements (OCC GE Option 2). Students transferring to a specific CSU campus can also meet the general education requirements of that campus.

### CSU GENERAL EDUCATION BREADTH REQUIREMENTS

See the Graduation Requirements section of the Catalog for specific courses which meet these requirements.

- A. COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING - 9 units
- B. PHYSICAL UNIVERSE AND ITS LIFE FORMS - 9 units
- C. ARTS, LITERATURE, PHILOSOPHY, FOREIGN LANGUAGE - 9 units
- D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS & BEHAVIOR; HISTORICAL BACKGROUND - 9 units
- E. LIFE-LONG UNDERSTANDING AND SELF DEVELOPMENT - 3 units

California State University has an American Institutions requirement which can be satisfied prior to transfer by taking an American History course in Area D and Political Science 180 or 180H.

### INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) FOR CSU

See the Graduation Requirements section of the Catalog for specific courses which meet these requirements.

1. ENGLISH COMMUNICATION - 9 units
2. MATHEMATICAL CONCEPTS - 3 units
3. ARTS AND HUMANITIES - 9 units
4. SOCIAL AND BEHAVIORAL SCIENCE - 9 units
5. PHYSICAL AND BIOLOGICAL SCIENCES - 7-9 units

California State University in addition has an American Institutions requirement which can be satisfied prior to transfer by taking Political Science 180 or 180H and one of the following courses: History 100, 170, 170H, 175, 175H or 177 or Economics 177.

The IGETC should be completed in its entirety prior to transfer. Students who do not complete the entire program before transfer may be subject to the regulations regarding breadth and general education of the school or college of the campus to which they have been admitted.

## UNIVERSITY OF CALIFORNIA

The University of California has 10 campuses located throughout the state. Each campus within the system has its own unique geographic and academic character. The university offers bachelor's, master's and doctoral degrees in a variety of subject areas. Campuses of the university are located at Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco (Schools of Medicine, Dentistry and Pharmacy), Santa Barbara and Santa Cruz.

### University of California – Admission Requirements

Students planning to transfer to the University of California must follow the requirements listed below:

1. Applicants eligible for admission to the University as freshman, meaning they satisfied the Subject, Scholarship, and Examination Requirements or were defined

by the university during their senior or Eligible in the Local Context (ELC), are eligible to transfer after they have a "C" (2.0) average in their transferable college coursework.

2. Applicants who met the Scholarship Requirement but did not satisfy the A-G Subject requirements must take transferable college courses in the missing high school subjects to be eligible to transfer.
3. Applicants not eligible for admission to the University as freshmen because they did not meet the Scholarship Requirement must:
  - A. Complete 60 semester units of transferable college work with a grade point average of at least 2.4. Some campuses and majors require higher grade point averages.
  - B. Complete a course pattern requirement to include:
    1. Two transferable college courses (3 semester or 4-5 quarter units each) in English Composition;
    2. One transferable college course (3 semester or 4-5 quarter units each) in Mathematical Concepts and Quantitative Reasoning; and
    3. Four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the Arts and Humanities; the Social and Behavioral Sciences; and the Physical and Biological Sciences.

### Preliminary Admission in the Field - UCI

UCI's Preliminary Admission in the Field program offers provisional admission to well qualified students in most majors. OCC students must meet with a UCI representative in the Transfer Center for a review of their qualifications. Qualified applicants will be offered preliminary provisional admission to UCI and provided with recommendations for coursework that should be completed prior to transfer. Participants in this program must have a minimum GPA of 3.0 in all transferable coursework.

### **Community College Honors Transfer Program -UCI**

The Community College Honors Transfer Program gives students priority consideration for admission to UCI. Students in this program may use the UCI library and attend selected cultural activities on the UCI campus. Students wishing to participate in this program must first apply to and be accepted into the OCC Honors Program. Additional information about this program is available in the Transfer Center.

### **Transfer Alliance Program- UCLA**

The Transfer Alliance Program (TAP) gives students priority consideration for admission to UCLA's College of Letters and Science. Students participating in TAP learn more about UCLA through meetings with UCLA counselors, faculty and students. TAP students may use the UCLA library and participate in cultural and sports events on the UCLA campus. TAP students must complete the OCC Honors Program. Students wishing to participate in TAP must first apply to and be accepted into the OCC Honors Program. Additional information about this program is available in the Transfer Center.

### **TAG-Transfer Agreement with UC Riverside**

UCR's Transfer Admission Guarantee (TAG) program encourages students to begin their work on their bachelor's degree at Orange Coast College and then transfer to UCR to complete it. TAG benefits include course planning assistance while you are at Orange Coast College by a UCR counselor, workshops on financial aid, housing and the application, and guaranteed admission to UCR. OCC also has an honors transfer agreement with UCR (HART). Information about the program is available in the Transfer Center.

### **TAA- Transfer Agreement with UC Davis**

The UC Davis Transfer Admission Agreement (TAA) guarantees admission to UC Davis for students completing all program requirements. TAA students receive priority admission to UC Davis. The TAA is a formal written agreement between UC Davis, OCC and the student which outlines the courses and GPA required before transferring. It can be written after completion of 30 semester units of transferable coursework. Detailed information about the program is available in the Transfer Center.

### **TAG-Transfer Admission Agreement with UC San Diego**

The Transfer Admission Guarantee (TAG) program assists students in transferring to UCSD. TAG students enter into a contract that specifies requirements they must satisfy to guarantee them admission to UCSD in all but a few impacted majors. This contract can be written up to two years in advance of transfer. Information about this program is available in the Transfer Center.

### **TAA- Transfer Agreement with UC Santa Barbara**

UCSB has established a Transfer Admission Agreement (TAA) which guarantees admission for fall terms. The TAA includes most majors in both the College of Letters and Science and the College of Engineering. To qualify, students must complete specific course requirements and maintain a minimum GPA of 3.0. For more information contact the Transfer Center.

### **GATE - Transfer Agreement with UC Santa Cruz**

The UC Santa Cruz Guaranteed Admission for Transfer Entry (GATE) guarantees admission to UC Santa Cruz for students satisfying program requirements. To apply for GATE students planning to transfer must have completed a minimum 30 transferable units at the time of application and have at least a 2.8 GPA. Benefits include early review of academic records, early notification of admission, personalized information and invitations to events. Additional information about the program is available in the Transfer Center.

### **General Education Requirements for the University of California**

To earn a bachelor's degree from the University of California, each student must complete a program of general education. To meet the general education requirements of the university, students can complete either the Intersegmental General Education Transfer Curriculum (Orange Coast College GE Option 3) or individual campus general education requirements. Orange Coast College strongly recommends that students follow the IGETC rather than the individual campus requirements as this will provide more flexibility when applying to transfer. IGETC should not be used for the following: Business Administration, Chemistry, Environmental Design and Natural Resources at UC Berkeley, Nursing at UCLA, Revell and Roosevelt College at UCSD. Engineering at all UC campuses, and other high unit majors at UC campuses (e.g. biological and physical sciences). Students who began at a UC campus and who intend to transfer back to the same campus cannot use IGETC. Some UC campuses do not allow students who began at another UC campus to use IGETC. Students in the above categories should follow the GE requirements of the UC campus they are transferring to.

#### **INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) FOR UC**

See the Graduation Requirements section of the Catalog for specific courses which meet these requirements.

1. ENGLISH COMMUNICATION - 6 units
2. MATHEMATICAL CONCEPTS - 3 units
3. ARTS AND HUMANITIES - 9 units
4. SOCIAL AND BEHAVIORAL SCIENCES - 9 units
5. PHYSICAL AND BIOLOGICAL SCIENCES - 7-9 units
6. LANGUAGE OTHER THAN ENGLISH - 0-5 units

The IGETC should be completed in its entirety prior to transfer. Students who do not complete the entire program before transfer may be subject to the regulations regarding general education of the school or college of the campus to which they have been admitted.

**INDIVIDUAL CAMPUS GENERAL  
EDUCATION REQUIREMENTS**

Each campus of the university has its own general education requirements. Students transferring to a specific UC campus can meet the general education requirements of that campus rather than follow the IGETC.

Orange Coast College has articulated individual general education requirements with several UC campuses.

**INDEPENDENT AND  
OUT-OF-STATE COLLEGE AND  
UNIVERSITIES**

In addition to state supported colleges and universities in California, there are many outstanding independent institutions in the state. There are also many colleges, both private and public, located throughout the United States which Orange Coast College students can transfer to. Each of these institutions has its own unique requirements for admission. In order to determine eligibility, students should visit the school's Web Site and consult with their counselor.

**General Education Requirements  
for Independent and Out-Of-State  
Colleges and Universities**

Orange Coast College has articulated general education requirements with many colleges and universities located in California. Copies of these agreements can be found on the Transfer Center Web Site.





# Career and Certificate Programs

As never before in its history, America needs people who are trained in scientific; professional and technical fields. Orange Coast College can provide that training.

Thousands of students enroll annually in OCC's highly acclaimed career programs. We offer more than 50 programs which lead to exciting, well-paying careers in two years or less.

Our comprehensive programs, which grant certificates of achievement, completion, and/or the Associate in Arts degree, prepare students to become qualified employees as well as educated citizens. A number of programs offer transfer options to four-year colleges and universities. Our career courses are both professional and high tech. They are fully accredited and feature industry advisory committees that meet annually to ensure the course curriculum accurately reflects current industry standards.

Majors leading to technical competence in a variety of occupational areas are available at Orange Coast College. Business and industry are making ever increasing demands for education beyond high school level. These career programs are designed to prepare the graduate to enter a particular field of employment.

Students should refer to the Graduation Requirements section of this catalog for general education and elective courses for the Associate in Arts degree.

Students may follow the catalog requirements that were in effect for the academic year when their attendance began at Orange Coast College or follow the catalog requirements in effect during subsequent years of attendance provided that continuous enrollment has been maintained. Continuous enrollment is defined as enrollment in a course at OCC for at least one semester in a calendar year.

Students must maintain at least a 2.0 overall GPA using transcripts from all colleges attended, except where there are specific certificate requirements indicated. At least 12 units must be completed at Orange Coast College. At least 3 units in an advanced course from the program must be completed at Orange Coast College. Credit by examination may be required to determine extent of knowledge.

# Career Programs

Career Programs	Certificate Or Achievement	Certificate Of Completion	AA Degree Major	AS Degree Major
<b>Accounting</b>				
Accounting	✓		✓	✓
Entry-Level Accounting		✓		
<b>Airline Travel Careers</b>				
Airline Travel Careers	✓		✓	✓
<b>Architectural Technology</b>				
Architectural Design	✓		✓	✓
Architectural Drafting and Design	✓		✓	✓
<b>Aviation Maintenance Technology</b>				
Airframe	✓			✓
Powerplant	✓			✓
Airframe and Powerplant	✓			✓
Avionics	✓			✓
Helicopter Theory and Maintenance		✓		
<b>Aviation Pilot Training</b>				
Aviation Pilot Training	✓			✓
Commercial Pilot		✓		
Instrumental Pilot		✓		
Private Pilot		✓		
Space Systems		✓		
Turbine Transition		✓		
<b>Cardiovascular Technology</b>				
Electrocardiography Technician	✓			
Echocardiography & Vascular Ultrasound				✓
<b>Commercial Art</b>				
Illustration Design	✓		✓	
Jewelry Design	✓		✓	
<b>Computer Information Systems</b>				
Business Application Development	✓		✓	✓
Computer Programming	✓		✓	✓
C++ Programming		✓		
Cold Fusion/Dreamweaver		✓		
Database Administration Associate (Oracle)		✓		
Database Administration Professional (Oracle)		✓		
Database Developer Associate (Oracle)		✓		
Database Developer Professional (Oracle)		✓		
Four-Year College Transfer	✓		✓	✓
Network Administration and Operations		✓		
Office Applications		✓		
Web Design		✓		
Web Server Development		✓		
.Net Application Development		✓		
<b>Computerized Office Technology</b>				
Office and Administrative Assistant	✓		✓	

# CAREER AND CERTIFICATE PROGRAMS

---

	C of A	C of C	A.A.	A.S.
<b><u>Construction Technology</u></b>				
Basic Construction Practices	✓			✓
Residential Construction Development	✓			✓
Master Construction Specialist	✓			✓
Residential Construction Professional	✓			✓
Basic Carpentry		✓		
Finish Carpentry		✓		
Concrete and Masonry		✓		
Residential Utilities		✓		
General Contracting and Development		✓		
Construction Field Management		✓		
Introduction to Construction		✓		
Construction Basics		✓		
<b><u>Costume Careers</u></b>				
Costume Dresser	✓			
Costume Stitcher	✓			
Costume Cutter/Draper	✓			
Assistant Costume Designer	✓			
<b><u>Culinary Arts</u></b>				
Culinary Arts	✓		✓	✓
Advanced Culinary Arts	✓		✓	✓
Cook Apprenticeship	✓			
Baking and Pastry	✓		✓	✓
<b><u>Culinology®</u></b>				
Culinary & Food Sciences	✓			
Culinology®				✓
<b><u>Dance</u></b>				
Dance Instructor	✓		✓	
World Dance	✓		✓	
Dance Conditioning/Pilates Instructor		✓		
<b><u>Dental Assisting, Registered</u></b>				
Dental Assisting, Registered	✓			✓
<b><u>Design</u></b>				
Design		✓		
<b><u>Diagnostic Medical Sonography</u></b>				
Diagnostic Medical Sonography				✓
<b><u>Dietetics</u></b>				
Dietetic Technician				✓
<b><u>Digital Media Arts and Design</u></b>				
Graphics Design	✓		✓	
Multimedia	✓		✓	
<b><u>Display &amp; Visual Presentation</u></b>				
Display & Visual Presentation	✓		✓	
<b><u>Drafting Technology</u></b>				
Computer Aided Design/Drafting	✓		✓	✓
Electro-Mechanical Design/Drafting	✓		✓	✓
Mechanical Design/Drafting	✓		✓	✓
Computer Aided Drafting		✓		
Electro-Mechanical CADD		✓		
Dimensioning		✓		

	C of A	C of C	A.A.	A.S.
<b><u>Early Childhood Education</u></b>				
Early Childhood Education	✓		✓	✓
Infant & Toddler Teacher	✓		✓	✓
Preschool Teacher	✓		✓	✓
Early Primary Classroom Aide	✓		✓	✓
Early Intervention Aide	✓		✓	✓
Early Childhood Administration	✓		✓	✓
Teacher/Aide	✓		✓	✓
Family Childcare Provider		✓		
School-Age Child Care		✓		
<b><u>Electronics Technology</u></b>				
Electronics Maintenance		✓		
Electronics Assembler	✓			
Electronics Engineering Technician	✓			✓
Electronic Computer Hardware Technician	✓			
Automation and Motor Control	✓			
Electronic Communications Technician	✓			
<b><u>Emergency Medical Technology</u></b>				
Emergency Medical Technician-1/Basic		✓		
<b><u>Entertainment Technology</u></b>				
Scenic Artist	✓			
Scenic Carpenter	✓			
Lighting Technician	✓			
Audio Technician	✓			
<b><u>Ethnic Studies</u></b>				
Ethnic Studies	✓		✓	
<b><u>Family and Consumer Sciences</u></b>				
Family and Consumer Sciences			✓	
<b><u>Fashion</u></b>				
Design	✓		✓	✓
Production/Product Development	✓		✓	✓
Apparel Construction	✓		✓	✓
Fashion Merchandising	✓		✓	✓
Industrial Sewing		✓		
<b><u>Film/Video</u></b>				
Film/Video	✓		✓	
<b><u>Fitness Specialist</u></b>				
Health Fitness Instructor/Personal Trainer	✓			✓
<b><u>Food Science</u> (See Culinary®)</b>				
<b><u>Food Service Management Commercial (Restaurant &amp; Hotels)</u></b>				
Restaurant				✓
Restaurant Supervision	✓			
Catering		✓		
Fast Food Services		✓		
<b><u>Food Service Management Institutional</u></b>				
Child Nutrition Program Management	✓		✓	✓
Dietetic Service Supervisor	✓			
Dietetic Service Manager	✓			
Dietetic Technician-Management Healthcare				✓
<b><u>Heating and Air Conditioning</u></b>				
HVAC Technology	✓			✓

# CAREER AND CERTIFICATE PROGRAMS

---

	C of A	C of C	A.A.	A.S.
<b><u>Hotel Management</u></b>				
Financial Management Specialist	✓			
Guest Service Specialist	✓			
Human Resources Specialist	✓			
Room Operations Specialist	✓		✓	✓
Sales; Marketing & Events Specialist	✓			
Hotel Housekeeping & Maintenance Specialist	✓			
Meeting & Event Management Healthcare		✓		
<b><u>Interior Design</u></b>				
Interior Merchandising	✓			
Interior Design Assistant				✓
Interior Design - Professional Level	✓			
<b><u>Leadership Studies</u></b>				
Leadership Studies		✓		
<b><u>Machine Technology</u></b>				
Machinist	✓			✓
CNC Machine Operator	✓			✓
CNC Machine Programmer	✓			✓
Tooling	✓			✓
CNC Operator		✓		
CNC Programmer		✓		
<b><u>Management</u></b>				
Management and Leadership Studies	✓		✓	✓
Retail	✓		✓	✓
Management Institute		✓		
<b><u>Marketing (Merchandising)</u></b>				
International Business	✓		✓	✓
Marketing	✓		✓	✓
Advertising		✓		
International Business		✓		
Entry Level Marketing		✓		
Sales		✓		
<b><u>Medical Assisting</u></b>				
CMA Eligible Program	✓			✓
Administrative		✓		
Clinical	✓			
Medical Insurance		✓		
<b><u>Medical Transcription</u></b>				
Medical Transcription	✓			
<b><u>Music</u></b>				
Business Employee	✓		✓	
Composer/Orchestrator/Copyist	✓		✓	
Concert Sound Engineer	✓		✓	
MIDI Applications	✓		✓	
Musical Entertainer—Instrumental	✓		✓	
Musical Entertainer—Vocal	✓		✓	
Private Music Teacher	✓		✓	
Studio Guitar Performer	✓		✓	

	C of A	C of C	A.A.	A.S.
<b><u>Neurodiagnostic Technology</u></b>				
Neurodiagnostic Technology				✓
NDT Upgrade		✓		
<b><u>Nutrition Careers</u></b>				
Community Nutrition Assistant	✓		✓	✓
Nutrition Education	✓		✓	✓
<b><u>Ornamental Horticulture</u></b>				
Ornamental Horticulture	✓			✓
<b><u>Photography, Still</u></b>				
Photography, Still	✓		✓	
<b><u>Polysomnography</u></b>				
Polysomnography				✓
Neurodiagnostic Technology Option				✓
Respiratory Care Option				✓
<b><u>Radiologic Technology (Diagnostic)</u></b>				
Radiologic Technology (Diagnostic)				✓
<b><u>Real Estate</u></b>				
Broker	✓		✓	✓
Sales Person		✓		
<b><u>Religious Studies</u></b>				
Religious Studies	✓		✓	
<b><u>Respiratory Care</u></b>				
Respiratory Care				✓
<b><u>School Health Assistant</u></b>				
School Health Assistant		✓		
<b><u>Speech-Language Pathology Assistant</u></b>				
Speech Language Pathology Assistant				✓
<b><u>Technical Writing</u></b>				
Technical Writing		✓		
<b><u>Welding Technology</u></b>				
Welding	✓			✓
Basic Welding (SMAW)		✓		
Intermediate Welding (SMAW)		✓		
Advanced Welding (SMAW)		✓		
Advanced 1 Welding (FCAW)		✓		
Advanced II Welding (FCAW)		✓		
Gas Tungsten Arc Welding (GTAW)		✓		
Gas Metal Arc Welding (GMAW)		✓		
Pipe		✓		



## ACCOUNTING

The Accounting certificate program contains coursework in financial and managerial accounting, computerized accounting, and intermediate, tax, and cost accounting. Completing the program will provide students with the skills necessary for employment in the following accounting positions:

- Account Clerk**
- Cost Clerk**
- Bookkeeper**
- Accountant Trainee**
- Junior Accountant**
- Income Tax Form Clerk**

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>First Semester</b>		
Financial Accounting	Acct	101	(4)
Introduction to Business	Bus	100	
<b>(Or)</b>			(3)
Honors Intro to Business	Bus	100H	
Intro to Info Sys & Appl	CIS	100	(3)
	<b>Second Semester</b>		
Managerial Accounting	Acct	102	(4)
Accounting Info Sys 1	Acct	110	(3)
	<b>Third Semester</b>		
Accounting with QuickBooks	Acct	112	(2)
Intermediate Accounting	Acct	211	(4)
Business Communication	Bus	139	(3)
	<b>Fourth Semester</b>		
Federal Income Tax	Acct	111	(3)
Cost Accounting	Acct	210	(3)
	<b>Total:</b>		<b>(32)</b>
<b>Suggested electives:</b>			
Volunteer Income Tax Assist	Acct	114	(1)
Business Law	Bus	110	(3)
Business Math	Bus	125	(3)
Small Business Ownership	Bus	240	(3)
Applied Management	Mgmt	100	(3)
Human Relations & Supervsn	Mgmt	115	(3)

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ENTRY-LEVEL ACCOUNTING

This certificate, issued through the Business and Computing Division, provides students with basic accounting and computer accounting coursework. Completion of the certificate will enable students to apply for entry-level positions in accounting.

*Students are required to obtain a grade of "C" or better in all required courses.*

### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Financial Accounting	Acct	101	(4)
Managerial Accounting	Acct	102	(4)
Accounting Info Sys 1	Acct	110	(3)
			<b>(11)</b>

## APPRENTICESHIP

The only apprenticeship program offered at Orange Coast College is the Cook Apprentice (see Culinary Arts).

## ARCHITECTURAL TECHNOLOGY

The Architectural Technology program at Orange Coast College offers courses in design, building materials, construction documents, design graphics, and computer-assisted design and drafting. Our comprehensive program provides students with the discipline and critical thinking skills necessary to transfer to a broad range of universities and the training and technical skills to gain employment with one of the more than 100 firms in this area that hire our graduates. Former California Architects Board President, Christine Lampert, AIA, rates our program as "one of the top community college programs in the state." OCC's architecture program has a long history of successful graduates and our current students continue to excel as indicated by winning design awards and club honors, high transfer rates, and becoming valued members of the professional community.

Our program offers a two-semester Certificate of Achievement in Architectural Drafting and a four-semester Certificate of Achievement in Architectural Drafting and Design. The first certificate represents completion of basic courses necessary to apply for an entry-level drafting position at an architectural or related professional office. The advanced certificate indicates that the student has achieved the critical thinking, design, and visual communication skills necessary to succeed in a university or as an entry-level drafting/design intern at an architectural firm.

## ARCHITECTURAL DESIGN

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>First Semester</b>		
Arch Dwg/Desgn Visual 1	Arch	105	(2)
Intro to Architecture	Arch	110	(2)
Basic Comp Aided Dsgn/Draft	Draft	150AB	(4)
	<b>Second Semester</b>		
Arch Dwg/Desgn Theory 1	Arch	115	(4)
Arch Draft & Const Documents	Arch	180	(4)
Arch Dwg/Desgn Visual 2	Arch	205	(3)
	<b>Total:</b>		<b>(19)</b>

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ARCHITECTURAL DRAFTING AND DESIGN

### CERTIFICATE OF ACHIEVEMENT

#### Required prerequisite:

Architectural Design Certificate of Achievement

**Subtotal: (19)**

#### Required Courses

Course			Units
	<b>FALL</b>		
Arch Plan & Const Documents	Arch	185	(4)
Arch Dwg/Desgn Theory 2	Arch	215	(4)
	<b>SPRING</b>		
Building Materials & Systems	Arch	220	(4)
Arch Dwg/Desgn Theory 3	Arch	230	(5)
Adv Comp Aided Design/Draft-Arch	Draft	158	(4)
	<b>Total:</b>		<b>(21)</b>

#### Suggested electives:

Building Codes & Standards	Arch	250	(2)
History of Arch 1	Arch	290	(3)
History of Arch 2	Arch	296	(3)
Land & Building Development	Arc/Const	225	(3)
Freehand Drawing	Art	120	(3)
Computer Use in Technology	Comp HT	100	(3)
Intro to Computer Graphics	DMA&D	181	(3)
Illus & Computer Graphics 1	DMA&D	190	(4)
Fund of Interior Design	I D	100	(3)
Interior Design Studio 1	I D	105	(2)
Space Planning	I D	170	(3)
Interior Design Studio 3	I D	265	(2)
Technical Math	Tech	040	(3)

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ART

-See COMMERCIAL ART

## AVIATION TECHNOLOGY

The Aviation Technology programs at OCC are divided into three areas: Aviation Maintenance Technology, Aviation Pilot Training, and Airline and Travel Careers. The Aviation Maintenance Technology and Aviation Pilot Training programs can be completed in approximately four semesters, while Airline and Travel Careers can be completed in two semesters.

Students must complete the required courses for the specific program in which they are enrolled to qualify for that program's Certificate of Achievement. The curriculum was developed by educators and industry representatives to ensure that course offerings accurately reflect current industry standards.

## AVIATION MAINTENANCE TECHNOLOGY

The Aviation Maintenance Technology program is divided into five areas: Airframe, Powerplant, Airframe and Powerplant, Avionics, and Helicopters.

The Aviation Maintenance Technology fields are of continuing growth and opportunity. The opportunities vary from field to field depending on the population's need for travel, business, and pleasure. Overall, the opportunities and availability outlooks are good to excellent. Each program prepares students in a specific area of aviation and will enable them to seek entry-level or higher levels of employment in the aviation industry.

The following job titles include senior positions earned after beginning in an entry-level position and advancing upward:

- Airframe & Powerplant Technician**
- Airframe Mechanic**
- Powerplant Mechanic**
- Avionics Technician**
- Airline Maintenance Mechanic**
- General Aviation Maintenance Mechanic**
- Aircraft Manufacturer Flight Test Mechanic**
- Civil Defense Aircraft Mechanic**
- U.S. Military Aircraft Mechanic**
- FAA Repair Station Technician**
- Helicopter Mechanic**
- Executive Aviation Mechanic**
- Aircraft Inspector**
- Engine Overhaul Mechanic (Turbine or Recips.)**
- Aircraft Hydraulic, Pneumatic, Electrical Technician**

*Note: Although the courses are sequenced, they may be started at any time.*

## AIRFRAME

This program provides training for the student who desires to be only an Airframe Technician. The training received enables the technician to return to service an airplane, related part, and appliance after performing, supervising or inspecting its maintenance or alterations. This Certificate of Achievement can be acquired in two semesters, one inter-session, and one summer school session.

This certificate would enable a student to achieve employment at local aircraft manufacturing and repair facilities.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		
			Units
	<b>FALL</b>		
General Maintenance Records	AMT	150	(4)
General Electricity	AMT	151	(3)
Gen Airfrm/Pwrplnt Fuel	AMT	152	(2)
Gen Mat/Processes/Weld	AMT	153	(3)
Gen Wgt/Bal/Math/Physcs	AMT	154	(3)
	<b>INTERSESSION</b>		
Gen Blueprint Read/Drft	AMT	155	(2)
Airframe&Powerplant Instrument	AMT	180	(2.5)
	<b>SPRING</b>		
Airframe & Pwrplnt Elec	AMT	160	(6)
Arfrm Sheet Mtl/Cmposte	AMT	161	(5.5)
Airframe Asmbly/Rig/ECS	AMT	162	(3)
Arfrm Comm/Nvgation Sys	AMT	181	(2)
	<b>SUMMER</b>		
Arfrm Hyd & Lndg Gear	AMT	163	(4.5)
	<b>Total:</b>		<b>(40.5)</b>

Program approved by the Federal Aviation Administration (FAA).

Completion of the above enables the student to take the FAA Airframe written examination.

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## POWERPLANT

This program provides training for the student who desires to be only a Powerplant Technician. The training received enables the technician to return to service an aircraft powerplant and propeller after performing, supervising or inspecting its maintenance, overhaul or alterations.

This certificate would enable a student to achieve employment in local powerplant and propeller overhaul facilities and repair stations.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>FALL</b>		
Gen Maintenance Records	AMT	150	(4)
General Electricity	AMT	151	(3)
Gen Airfrm/Pwrplnt Fuel	AMT	152	(2)
Gen Mat/Processes/Weld	AMT	153	(3)
Gen Wgt/Bal/Math/Physcs	AMT	154	(3)
	<b>INTERSESSION</b>		
Gen Blueprint Read/Drft	AMT	155	(2)
Airframe&Powerplant Instrument	AMT	180	(2.5)
	<b>SPRING</b>		
Airframe & Pwrplnt Elec	AMT	160	(6)
Arfrm Comm/Nvgation Sys	AMT	181	(2)
	<b>FALL</b>		
Pwrplnt Recip Engines	AMT	170	(6)
Pwrplnt fuel/Mtr/Exhst	AMT	171	(4)
	<b>INTERSESSION</b>		
Powerplant Ignition Sys	AMT	174	(2.5)
	<b>SPRING</b>		
Pwrplnt Prplr/Lube Sys	AMT	172	(4)
Pwrplnt Gas Turbine Eng	AMT	173	(6)
	<b>Total:</b>		<b>(50)</b>

Program approved by the Federal Aviation Administration (FAA).

Completion of the above enables the student to take the FAA Powerplant written examination.

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## AIRFRAME & POWERPLANT

This program provides students with the technical skills and systems analysis necessary for entry-level positions as Airframe and Powerplant Certificated Mechanics in the aviation industry, such as airframe inspection, powerplant inspection, maintenance, and return-to-flight status of all types of U.S. Certificated aircraft.

Trained technicians are also successful in related fields of aircraft manufacturing, electronics, hydraulics, pneumatics, welding, sheet metal, quality control, civil and military defense. Additionally, students who have followed this program may earn an engineering degree at any one of several four-year institutions.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>FALL</b>		
Gen Maintenance Records	AMT	150	(4)
General Electricity	AMT	151	(3)
Gen Airfrm/Pwrplnt Fuel	AMT	152	(2)
Gen Mat/Processes/Weld	AMT	153	(3)
Gen Wgt/Bal/Math/Physcs	AMT	154	(3)
	<b>INTERSESSION</b>		
Gen Blueprint Read/Drft	AMT	155	(2)
Airframe&Powerplant Instrument	AMT	180	(2.5)
	<b>SPRING</b>		
Airframe & Pwrplnt Elec	AMT	160	(6)
Arfrm Sheet Mtl/Cmposte	AMT	161	(5.5)
Airframe Asmbly/Rig/ECS	AMT	162	(3)
Arfrm Comm/Nvgation Sys	AMT	181	(2)
	<b>SUMMER</b>		
Arfrm Hyd & Lndg Gear	AMT	163	(4.5)
	<b>FALL</b>		
Pwrplnt Recip Engines	AMT	170	(6)
Pwrplnt fuel/Mtr/Exhst	AMT	171	(4)
	<b>SPRING</b>		
Pwrplnt Prplr/Lube Sys	AMT	172	(4)
Pwrplnt Gas Turbine Eng	AMT	173	(6)
Powerplant Ignition Sys	AMT	174	(2.5)
	<b>Total:</b>		<b>(63)</b>

Program approved by the Federal Aviation Administration (FAA).

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## AVIONICS

The Avionics program is designed to prepare students for entry-level positions as installation, maintenance, and repair technicians for avionic equipment in private, corporate, and commercial aircraft.

The aircraft industry is quickly evolving its level of sophisticated navigational and communications systems to include microprocessor-based systems in all areas of the airframe. This requires a new competent work force capable in the state-of-the-art technology of the future.

This two-semester certificate program combines theory and laboratory practices with hands-on application in actual aircraft. Upon completion, the student will be ready for employment in this fast growing and exciting field.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	FALL			
General Electricity	AMT	151	(3)	
Aircraft Avionics Circuits	AMT	182	(5)	
Avionics Rules & Regulations	AMT	188	(1.5)	
	INTERSESSION			
Airframe&Powerplant Instrument	AMT	180	(2.5)	
	SPRING			
Arfrm Comm/Nvgation Sys	AMT	181	(2)	
Aircraft Avionics Systems	AMT	184	(5.5)	
	<b>Total:</b>		<b>(19.5)</b>	

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## HELICOPTER THEORY AND MAINTENANCE

This program provides students with the general knowledge of rotary wing development, technology, construction, and a general survey of the helicopter industry.

This program also provides a good understanding of the helicopter type aircraft to interested individuals, technicians, and pilots.

### CERTIFICATE OF COMPLETION

Course	Required Courses			Units
	FALL			
Theory and Operations	AMT	140	(3)	
	SPRING			
Helicopter Maintenance	AMT	290	(4)	
				<b>(7)</b>

## AIRLINE AND TRAVEL CAREERS

This program prepares men and women of all ages for the highly competitive customer service careers including flight attendant in the airline and travel industry. Courses include a career survey, hiring qualifications and requirements, communication skills, appearance and image standards, oral interviewing techniques, written employment seeking skills, and airline, airport, and travel terminology and codes. Students will work on campus and at John Wayne Airport, and community and charity events to gain the public contact experience considered valuable in the travel industry.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
Public Serv-AirLn/Trav Careers* (two semesters at 2.0 units each or one semester at 4.0 units)	AirLn 105AC	(4)
Personal Development, Appearance, Image, Attitude	AirLn 110	(1.5)
Travel Careers Survey	AirLn 111	(1.5)
Flight Attendant Qualifications and Opportunities	AirLn 112	(1.5)
Employment Skills-Written	AirLn 114	(1.5)
Interviewing Techniques	AirLn 115	(1.5)
Travel Industry Operations and Terminology	AirLn 116	(1.5)
Travel Safety Inflight/Ground	AirLn 119	(1.5)
Service Excellence Infit/Grnd	AirLn 120	(1.5)
Intercultr Awareness/Etiquette	AirLn 132	(1.5)
Computer use for Travel Careers	AirLn 134	(1.5)
First Aid/CPR*	Hled 112	(2)
<b>Subtotal:</b>		<b>(21)</b>
<b>Select at least four and one half (4.5) units from the following:</b>		
Travel Geography-United States	AirLn 122	(1.5)
Travel Geography-Northern Europe	AirLn 123	(1.5)
Travel Geography-Africa	AirLn 124	(1.5)
Travel Geography-The Americas	AirLn 125	(1.5)
Travel Geography-Southern Europe	AirLn 126	(1.5)
Travel Geography-Eastern Europe	AirLn 127	(1.5)
Travel Geography-Pacific Rim	AirLn 128	(1.5)
<b>Total:</b>		<b>(4.5)</b>
<b>Suggested electives:</b>		
Conversational Language*		(3)
Beg Computer Keyboarding 1	COT 109	(1.5)
Intro to Information Systems	CIS 100	(3)
Interpersonal Communication*	Spcom 100	(3)

\*Sixteen-week courses

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## AVIATION PILOT TRAINING

This program offers training in areas such as corporate piloting, commuter airline piloting, aerial photography, and flight instruction. The curriculum also exposes students to space systems and employment opportunities in local aerospace corporations.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
<b>FALL</b>		
Private Pilot Ground School	APT 130	(5)
Aviation-Meteorology	APT 133	(3)
Basic Air Transportation	APT 180	(3)
<b>SPRING</b>		
Aviation-Navigation	APT 132	(3)
Instrument Ground School	APT 134	(3)
<b>FALL</b>		
Commercial Pilot Ground School	APT 139	(3)
Turbine Aircraft Systems	APT 145	(3)
<b>Total:</b>		<b>(23)</b>
<b>Suggested electives:</b>		
Air Traffic Control for Pilots	APT 125	(1.5)
Aircraft Engines	APT 135	(3)
Soaring-Glider Ground School	APT 136	(3)
Aircraft Preventive Maintenance	APT 137	(1.5)
Aerodynamics	APT 138	(3)
Flight Instructor Ground School	APT 140	(3)
Flight Simulator Course	APT 141AD	(3)
Human Factors/Cockpit Mgmt	APT 192	(1.5)
Astronautics/Spacecraft Design	APT 195	(3)
Space Station	APT 196	(1.5)
Advanced Space Systems	APT 197	(1.5)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## AVIATION PILOT TRAINING

### Professional Upgrade Certificates

The following Professional Upgrade Certificates are intended for the advanced student or the employed aerospace professional who desires advanced or recurrent training in a specific area. Certificates may be obtained from the Technology Division office by bringing in official records showing the successful completion of required courses.

#### Space Systems

A program of study that covers current topics in the aerospace industry for the advanced student or working professional employed at a government agency or as a private contractor. Topics include space shuttle systems, mission operations and support, flight crew selection and training, International Space Station components and systems, commercial satellites and launch services, and local industry employment opportunities supporting America's space program.

#### SKILL CERTIFICATE

##### Required Courses

Course			Units
Astronautics & Spacecraft Design	APT	195	(3)
Space Station	APT	196	(1.5)
<b>Total:</b>			<b>(4.5)</b>

#### Turbine Transition

A program of study that covers turbine aircraft systems and cockpit resource management. The courses are intended to explore those topics that a student would cover in obtaining a type rating in a Cessna Citation or Boeing 737-200. The student will also become familiar with CRM and how it is utilized in the cockpits of commuter, corporate, and airline flight decks.

#### SKILL CERTIFICATE

##### Required Courses

Course			Units
Turbine Aircraft Systems	APT	145	(3)
Human Factors & Cockpit Resource Management	APT	192	(1.5)
<b>Total:</b>			<b>(4.5)</b>

**CONTINUED NEXT PAGE**



**Private Pilot**

A program of study that covers current topics in the aerospace industry for the beginning aviation student or working professional.

**CERTIFICATE OF COMPLETION**

**Required Courses**

<b>Course</b>			<b>Units</b>
Private Pilot Ground School	APT	130	(5)
Aviation-Meteorology	APT	133	(3)
Basic Air Transportation	APT	180	(3)
<b>Total:</b>			<b>(11)</b>

**Instrument Pilot**

A program of study that covers current topics in the aerospace industry for the advanced instrument student.

**CERTIFICATE OF COMPLETION**

**Required Courses**

<b>Course</b>			<b>Units</b>
Aviation-Navigation	APT	132	(3)
Instrument Ground School	APT	134	(3)
Flight Simulator Course	APT	141AD	(3)
<b>Total:</b>			<b>(9)</b>

**Commercial Pilot**

A program of study that covers current topics in the aerospace industry for the advanced aviation pilot student or working aviation professional.

**CERTIFICATE OF COMPLETION**

**Required Courses**

<b>Course</b>			<b>Units</b>
Commercial Pilot Ground School	APT	139	(3)
Flight Instructor Ground School	APT	140	(3)
Turbine Aircraft Systems	APT	145	(3)
<b>Total:</b>			<b>(9)</b>

**BUSINESS**

**BUSINESS ADMINISTRATION**

The Business Administration program is designed to provide the opportunity for the transfer business major to achieve an Associate in Arts or Associate in Science degree. The completion of this program will provide comprehensive preparation for upper-division work and/or attainment of a degree supportive of attempts to gain entry-level employments. Students are advised to check course transferability for the school to which they intend to transfer.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

<b>Course</b>			<b>Units</b>
Financial Accounting	Acct	101	(4)
Managerial Accounting	Acct	102	(4)
Introduction to Business	Bus	100	(3)
Business Law	Bus	110	(3)
Business Communication	Bus	139	(3)
Intro to Info Sys/Program	C S	111	(4)
Macroeconomics	Econ	180	(3)
Microeconomics	Econ	185	(3)
Intro to Statistics	Math	160	(3)
<b>(Or)</b>			
Honors Intro to Statistics	Math	160H	(3)
<b>(Or)</b>			
Statistics for Behavioral Sci	Psych	160	(3)
Calculus for Biol Mgmt & Soc. Sci	Math	157	(4)
<b>(Or)</b>			
Calculus 1	Math	180	(4)
<b>(Or)</b>			
Honors Calculus 1	Math	180H	(4)
<b>(Or)</b>			
Honors Calculus 1 and 2	Math	182H	(5)
<b>Total:</b>			<b>(34-35)</b>

Suggested electives:

Microcomputer Accounting	Acct	110	(3)
Business Finance	Bus	200	(3)
Logic & Critical Thinking	Phil	150	(3)

**ASSOCIATE DEGREES**

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

See ACCOUNTING  
 COMPUTER INFORMATION SYSTEMS  
 COMPUTER SCIENCE  
 COMPUTERIZED OFFICE TECHNOLOGY  
 FOOD SERVICE MANAGEMENT  
 HOTEL MANAGEMENT  
 MANAGEMENT  
 MARKETING

## CARDIOVASCULAR TECHNOLOGY

Cardiovascular Technology is an allied health profession concerned with the diagnosis and treatment of patients with heart and blood vessel disease. The cardiovascular technologist performs tests at the request of a physician to obtain information about that patient's heart and blood vessel anatomy and function so the physician can make a diagnosis. The profession of cardiovascular technology includes three areas of diagnostic evaluation: 1) invasive cardiovascular technology (diagnosis of heart disease by cardiac catheterization), 2) noninvasive cardiovascular technology (diagnosis of heart disease by cardiac ultrasound, exercise, and electrocardiographic testing), and 3) noninvasive peripheral vascular study (diagnosis of blood vessel disease using ultrasound testing).

The Cardiovascular Technology program provides the necessary classroom and clinical courses to allow graduates to work as noninvasive cardiovascular technologists. Specifically, the program objectives include:

1. Graduate qualified ECG technologists.
2. Graduate qualified noninvasive cardiovascular technologists who obtain RDCS within two years of completing the program and who are qualified in all noninvasive tests.
3. Provide an adequate number of graduates to meet the need for employees within the community.

During the first year of the program, students learn basic medical sciences and noninvasive cardiovascular tests including electrocardiography (ECG), exercise testing, Holter monitoring, pacemaker evaluation and continuous cardiac monitoring. Students may exit the program after the first year and obtain a Certificate of Achievement as an Electrocardiography Technician. With this certificate, graduates may obtain employment as an ECG technician, stress testing technician, Holter monitor technician, pacemaker technician and/or monitor (telemetry) technician.

Students wishing to complete the two-year program must complete the first year courses and Diagnostic Medical Sonography 150, and the general education for the Associate in Science degree. Graduates of the Noninvasive Cardiovascular Technology program option may obtain employment as a cardiovascular technologist performing all noninvasive tests, particularly cardiac ultrasound or echocardiography. Additionally, graduates may perform limited cerebrovascular ultrasound tests.

The Cardiovascular Technology program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

## ELECTROCARDIOGRAPHY TECHNICIAN

Employment possibilities include:

- ECG Technician
- Stress Testing Technician
- Holter Monitor Technician
- Pacemaker Technician
- Monitor (Telemetry) Technician

### CERTIFICATE OF ACHIEVEMENT

Program prerequisites:

Health Occupations	AI H	010	(.5)
Anatomy-Physiology	Biol	221	(4)

*CONTINUED NEXT COLUMN*

### Required Courses

Course			Units
<b>FALL</b>			
Medical Terminology	AI H	111	(3)
Patient Care	AI H	115	(2.5)
Intro Info Sys & Appl	CIS	100	(3)
Intro to Electrocardiography	CVT	100	(2)
Cardiac Anat & Pathophysiology	CVT	160	(3)
Technical Math*	Tech	040	(3)
<b>SPRING</b>			
Human Diseases	AI H	120	(2)
Intro to Invasive Cardiology	CVT	130	(3)
Adv Electrocardiography	CVT	150	(2)
ECG Clinical Experience	CVT	170	(3)
<b>Total:</b>			<b>(31)</b>

\*(or Math 010 or higher or placement at Math 030 level)

### Suggested elective:

Ethics	Phil	120	(3)
--------	------	-----	-----

Students are required to obtain a grade of "C" or better in all required courses.

## ECHOCARDIOGRAPHY AND VASCULAR ULTRASOUND

### Associate in Science Degree

Employment possibilities include:

- Noninvasive Cardiovascular Technologist
- Echocardiographer/Echocardiography Technologist
- Cerebrovascular Ultrasound Technologist

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

Required prerequisites:

- Electrocardiography Technician
- Certificate of Achievement

Course			Units
<b>Subtotal:</b>			
<b>(31)</b>			
<b>Required Courses</b>			
<b>FALL</b>			
Intro to Echocardiography	CVT	200	(3)
Intro to Echocardiography Lab	CVT	205	(1)
Echocardiography Clin Lab 1	CVT	210	(5)
Sono Physics/Instrumentation	DMS	150	(4.5)
<b>SPRING</b>			
Adv Echocardiography	CVT	250	(2)
Adv Echocardiography Lab	CVT	255	(1)
Cerebrovascular Ultrasound	CVT	260	(2)
Echocardiography Clin Lab 2	CVT	265	(6)
<b>Total:</b>			<b>(55.5)</b>

Students are required to obtain a grade of "C" or better in all required courses.

## COMMERCIAL ART

### ILLUSTRATION DESIGN

The Illustration Design option places its emphasis on a great variety of drawing and painting courses. The diversity of this curriculum may lead the student into career alternatives, such as illustrating for books, magazines, record album covers, and brochures.

#### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	First Semester		
Color & Design 2-D	Art	110	(3)
Freehand Drawing	Art	120	(3)
Rapid Illustration Techniques	DMA&D	117	(4)
<b>Second Semester</b>			
Color & Design 3-D	Art	111	(3)
Life Drawing	Art	121AD	(3)
Perspective	Art	125	(3)
Graphic Design	DMA&D	182AC	(4)
<b>Third Semester</b>			
Painting 1	Art	130	(3)
Story Illustration Techniques	Art	143AD	(3)
Figure Composition	Art	220AD	(3)
<b>Fourth Semester</b>			
Printmaking 1	Art	170	(3)
Professional Studies	Art	180	(2)
Intro to Marketing	Mktg	100	(3)
		<b>Total:</b>	<b>(40)</b>
<b>Suggested electives:</b>			
Contemporary Art History	Art	102	(3)
2D Animation	DMA&D	280AC	(4)

#### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

### JEWELRY DESIGN

The Jewelry Design program offers a strong fine arts background in design, materials, and techniques. Further studies at the university level are encouraged; however, potential areas of employment exist in freelance jewelry design, sales, and activities related to retirement and recreational programs.

#### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	First Semester		
Color & Design 2-D	Art	110	(3)
Freehand Drawing	Art	120	(3)
<b>Second Semester</b>			
Color & Design 3-D	Art	111	(3)
Sculpture 1	Art	141	(3)
Jewelry 1	Art	147	(3)
<b>Third Semester</b>			
Jewelry 2	Art	247AC	(3)
Intro to Marketing	Mktg	100	(3)
<b>Fourth Semester</b>			
Professional Studies	Art	180	(2)
Sculpture 2	Art	241AC	(3)
		<b>Total:</b>	<b>(26)</b>

#### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## COMPUTER INFORMATION SYSTEMS

The goal of the CIS program is to provide students with the technical skills and systems perspective necessary for entry-level positions in the computer and information industry or for transfer to a four-year degree program at state colleges and universities.

## BUSINESS APPLICATION DEVELOPMENT

Designed to provide a good foundation for students who are interested in developing computer applications. Students may choose courses in a number of areas to develop a general understanding of the field or they may choose to study a particular specialization or two in greater depth. In today's dynamic and changing technological environment, continuous professional upgrading is a requirement.

### CERTIFICATE OF ACHIEVEMENT

#### Core Curriculum

#### Required Courses

Course			Units
Financial Accounting	Acct	101	(4)
Intro to Info Sys & Prog	C S	111	(4)
Intro to C# .NET Programming*	C S	140	
<b>(Or)</b>			
Intro to VB .NET Programming*	C S	142	
<b>(Or)</b>			(4)
Pascal Programming*	C S	115	
<b>(Or)</b>			
Java Programming 1*	C S	170	
Finite Math	Math	154	
<b>(Or)</b>			(4)
Calculus 1	Math	180	
<b>(Or)</b>			
Honors Calculus 1	Math	180H	
<b>(Or)</b>			
Calculus for BMSS	Math	157	
<b>Subtotal:</b>			<b>(16)</b>

Courses marked by asterisk (\*) may not be used to satisfy both the core requirement and the specialization requirement.

**CONTINUED NEXT COLUMN**

Students must complete the core curriculum plus 18 units from the following list of specialized application development courses. All courses do not need to be taken from the same area of specialization.

#### Introductory Programming

Course			Units
Pascal Programming*	C S	115	(4)
Intro to C# .NET Programming*	C S	140	(4)
Intro to VB .NET Programming*	C S	142	(4)
Java Programming 1*	C S	170	(4)

#### Technical Programming

Course			Units
Computer Architecture	C S	116	(4)
C++ Programming 1	C S	150	(4)
Windows .NET Programming	C S	152	(4)
Data Structures	C S	200	(4)
C++ Programming 2	C S	250	(4)

#### Web Development

Course			Units
Intro to the Internet	CIS	122	(1.5)
Intro to Web Page Design	CIS	123	(2)
Intro to E-Commerce	CIS/Bus	126	(2)
Intro to Dreamweaver MX	CIS	128	(2)
Bus Multimedia/Graphics	CIS	132	(2)
JavaScript Programming	CIS	171	(2)
Adv Web Page Design	CIS	223	(3)
ASP .NET Programming	CIS	224	(4)
ColdFusion Programming	CIS	225	(3)
Applied E-Commerce	CIS	226	(4)
Java Programming 2	C S	272	(4)

#### Networking Environment

Course			Units
Intro to Unix	CIS	106	(4)
MS Windows	CIS/Bus	107	(1)
PC Concepts A+Cert Prep	CIS	110	(4)
SQL Server Admin & Design	CIS	176	(4)
SQL Server Design & Implementation	CIS	177	(4)
Network & Comm Technologies	CIS	191	(4)
Network Systems Admin	CIS	192	(4)
Network Infrastructure Admin	CIS	193	(3)
Network Directory Services Admin	CIS	194	(3)
Network Security Design	CIS	196	(4)

#### Database

Course			Units
Intro to Database Concepts	CIS	182	(4)
Oracle SQL Programming	CIS	183	(4)
Oracle PL/SQL Programming	CIS	184	(3)
Oracle Forms & Reports Developer	CIS	185	(4)
Oracle Database Admin I	CIS	187	(3)
Oracle Database Admin II	CIS	188	(2)
Oracle Database Perform Tuning	CIS	189	(2)

**Total: (18)**  
**(34)**

#### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## COMPUTER PROGRAMMING

This certificate is designed to provide the student with comprehensive grounding in the theory and practice of modern computer programming. Based on the recommendations of the Association of Computing Machinery, the Computer Programming Certificate prepares students to work as entry-level programmers, or, to transfer to a Computer science program at a four-year university.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

<b>Computer Science Courses</b>			<b>Units</b>
Computer Architecture	C S	116	(4)
C++ Programming 1	C S	150	(4)
Java Programming I	C S	170	(4)
Data Structures	C S	200	(4)
Software Engineering	C S	220	(4)
C++ Programming 2	C S	250	(4)
Theories of Computation	C S	265	(1)
		<b>Total:</b>	<b>(25)</b>
<b>Mathematic Courses</b>			
Intro to Stats (or Honors Intro Stats)	Math	160(H)	(3)
Calculus 1 (or Honors Calculus 1) (And)	Math	180(H)	(8)
Calculus 2 (or Honors Calculus 2) (Or)	Math	185(H)	
Honors Calculus 1 and 2	Math	182H	(5)
Discrete Mathematics	Math	230	(5)
Applied Linear Algebra (Or)	Math	235	(3)
Intro to Linear Algebra & Differential Equations (Or)	Natg	285	(4)
Honors Intro to Linear Algebra & Differential Equations	Math	285H	(5)
		<b>Subtotal:</b>	<b>(16-21)</b>
		<b>Total:</b>	<b>(41-46)</b>

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## FOUR-YEAR COLLEGE TRANSFER

This option provides the student with the necessary lower division transfer courses for most business oriented majors. Students are advised to check course transferability with the school to which they intend to transfer prior to enrolling in CIS courses.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

<b>Course</b>			<b>Units</b>
Financial Accounting	Acct	101	(4)
Managerial Accounting	Acct	102	(4)
Business Law	Bus	110	(3)
Intro to Info Sys & Prog	C S	111	(4)
PASCAL Programming	C S	115	
<b>(Or)</b>			(4)
Java Programming 1	C S	170	
Intro to C# .NET Programming (Or)	C S	140	(4)
Intro to VB .NET Programming	C S	142	
Macroeconomics	Econ	180	(3)
Microeconomics	Econ	185	(3)
Calculus for BMSS (Or)	Math	157	(4)
Calculus 1	Math	180	
		<b>Total:</b>	<b>(33)</b>

This program will meet major requirements for the Associate in Arts or Associate in Science degree but has not been articulated with any particular four-year institution. Students should not expect that they will necessarily meet the lower division requirements at specific colleges or universities. Students should consult the Transfer Information section of this catalog for specific transfer information.

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## COMPUTER INFORMATION SYSTEMS

### Certificates of Completion

#### C ++ Programming

Completion of this certificate, issued through the Business and Computing Division, will enable students to apply for entry-level positions in C++ programming. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

#### Required Courses

Course	C S	Units	Units
C++ Programming 1	C S	150	(4)
Data Structures	C S	200	(4)
C++ Programming 2	C S	250	(4)
<b>Total:</b>			<b>(12)</b>

#### Database Administration Associate (Oracle)

Completion of this certificate, issued through the Business and Computing Division, will enable students to acquire the skills needed for database administration. In addition, this certificate provides preparation for students seeking Oracle's Associate Level certification in Database Administration. A grade of "C" is required in all courses. All courses must be completed at Orange Coast College.

#### Required Courses

Course	C S	Units	Units
Intro to Database Concepts	CIS	182	(4)
Oracle SQL Programming	CIS	183	(4)
Oracle Database Admin I	CIS	187	(3)
<b>Total:</b>			<b>(11)</b>

#### Database Administration Professional (Oracle)

Completion of this certificate, issued through the Business and Computing Division, will enable students to acquire the skills needed for advanced database administration. In addition, this certificate provides preparation for students seeking Oracle's Professional Level certification in Database Administration. A grade of "C" is required in all courses. All courses must be completed at Orange Coast College.

#### Required Courses

Course	C S	Units	Units
Intro to Database Concepts	CIS	182	(4)
Oracle SQL Programming	CIS	183	(4)
Oracle Database Admin I	CIS	187	(3)
Oracle Database Admin II	CIS	188	(2)
Oracle Database Performance Tuning	CIS	189	(2)
<b>Total:</b>			<b>(15)</b>

#### Database Developer Associate (Oracle)

Completion of this certificate, issued through the Business and Computing Division, will enable students to acquire the skills needed for database design and programming. In addition, this certificate will help prepare for the Oracle's Associate Level certification in SQL and PL/SQL programming. A grade of "C" is required in all courses. All courses must be completed at Orange Coast College.

#### Required Courses

Course	C S	Units	Units
Intro to Database Concepts	CIS	182	(4)
Oracle SQL Programming	CIS	183	(4)
Oracle PL/SQL Programming	CIS	184	(3)
<b>Total:</b>			<b>(11)</b>

#### Database Developer Professional (Oracle)

Completion of this certificate, issued through the Business and Computing Division, will enable students to acquire the skills needed for developing forms and reports using the Oracle database environment. In addition, this certificate will help prepare for the Oracle's Professional Level certification in Forms and/or Reports. A grade of "C" is required in all courses. All courses must be completed at Orange Coast College.

#### Required Courses

Course	C S	Units	Units
Intro to Database Concepts	CIS	182	(4)
Oracle SQL Programming	CIS	183	(4)
Oracle PL/SQL Programming	CIS	184	(3)
Oracle Forms & Reports Developer	CIS	185	(4)
<b>Total:</b>			<b>(15)</b>

#### Network Administration and Operations

Completion of this certificate will enable students to acquire the skills needed in the areas of technical operations and network management. In addition, this certificate provides preparation for students seeking industry-standard certification from CompTIA and Microsoft. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

#### Required Courses

Course	C S	Units	Units
PC Concepts: A+Cert Prep	CIS	110	(4)
Network & Comm Technologies	CIS	191	(4)
Network Systems Admin	CIS	192	(4)
<b>Select one (1) course from the following:</b>			
SQL Server Admin & Design	CIS	176	(4)
SQL Server Design & Implementation	CIS	177	(4)
Network Infrastructure Admin	CIS	193	(3)
Network Directory Services Admin	CIS	194	(3)
Network Security Design	CIS	196	(4)
<b>Total:</b>			<b>(15-16)</b>

## CAREER AND CERTIFICATE PROGRAMS

---

### Office Applications

Completion of this certificate, issued through the Business and Computing Division, will enable students to apply for office personnel positions using Microsoft Office applications. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

Course	Required Courses	Units
MS Windows	CIS 107	(1)
Microsoft Word 1	CIS 131	(2)
PowerPoint	CIS/Bus 133	(1)
Excel 1	CIS/Bus 134	(2)
Intro to Microsoft Access	CIS 135	(2)
Microsoft Outlook	CIS 137	(1)
<b>Total:</b>		<b>(9)</b>

### Web Design

Completion of this certificate, issued through the Business and Computing Division, will enable students to apply for entry-level positions in designing for the World Wide Web. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

Complete five (5) courses from this list.

Course	Required Courses	Units
Intro to the Internet	CIS 122	(1.5)
Intro to Web Page Design	CIS 123	(2)
Intro to E-Commerce	CIS/Bus 126	(2)
Intro to Dreamweaver MX	CIS 128	(2)
Bus Multimedia/Graphics	CIS 132	(2)
JavaScript Programming	CIS 171	(2)
Adv Web Page Design	CIS 223	(3)
<b>(9.5-11)</b>		

### Web Server Development

Completion of this certificate, issued through the Business and Computing Division, will enable students to apply for entry-level positions creating server-side programs and developing dynamic web sites. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

Students may choose one of three options for the Web Server Development certificate: Java, .NET Application Development, or ColdFusion.

Required Courses

Course	Java	Units
Java Programming 1	C S 170	(4)
Java Programming 2	C S 272	(4)
Applied E-Commerce	CIS 226	(4)
<b>Total:</b>		<b>(12)</b>

### .NET Application Development

The .NET Application Development certificate is for those building Windows and web applications using the Microsoft .NET platform. Completion of the courses in this certificate provides preparation for students seeking Microsoft Certified Application Developer (MCAD) certification. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

Course	Required Courses	Units
Intro to C# .NET Programming	C S 140	(4)
<b>(Or)</b>		
Intro to VB .NET Programming	C S 142	(4)
Windows .NET Programming	C S 152	(4)
ASP .NET Programming	CIS 224	(4)
.NET XML Web Services	C S 252	(4)
<b>Total:</b>		<b>(16)</b>

### ColdFusion/Dreamweaver

The Cold Fusion / Dreamweaver certificate provides students the skills to build E-Commerce web applications using Macromedia's Dreamweaver Web Development and Cold Fusion Web Application environments. A grade of "C" or better is required in all courses. All courses must be completed at Orange Coast College.

Course	Units	
Intro to Dreamweaver MX	CIS 128 (2)	
ColdFusion Programming	CIS 225 (3)	
Applied E-Commerce	CIS 226 (4)	
<b>Total:</b>		<b>(9)</b>

## COMPUTERIZED OFFICE TECHNOLOGY

Orange County's employment outlook in the field of administrative support is very good and expected to increase. Clerical/administrative job opportunities prevail in all types of businesses including accounting, banking, healthcare, insurance, sales, technology, construction, government, hospitality, tourism and the arts and entertainment.

Duties vary widely and are continually changing with new technological advancements. To obtain the best jobs, proficiency in MS Word, Excel, and PowerPoint, together with office procedures and strong communication skills is mandatory.

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



## OFFICE & ADMINISTRATIVE ASSISTANT

Computer skills are crucial to successful key staff positions. Office and administrative support personnel must be able to skillfully prepare business documents including letter, memos, statistical and written reports as well as presentations for management. Analytical thinking is an important asset as employees are often required to prioritize their own work and develop processes that monitor progress and performance for the company.

**Employment possibilities include:**

- Administrative Assistant**
- Executive Assistant**
- Office Assistant**
- Receptionist**
- Secretary**
- Word processor/typist**
- Clerk /typist**

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

Course			Units
Business English	Bus	138	(3)
PowerPoint	Bus/CIS	133	(1)
Excel 1	Bus/CIS	134	(2)
Microsoft Word 1	CIS	131	(2)
Microsoft Word 2	CIS	231	(2)
Beg Comp Keyboarding 1	COT	109	(1.5)
Keyboard Speed & Accuracy*	COT	111AB	(3)
Beg Computer Keyboarding 2	COT	113	(1.5)
Office Skills	COT	150	(3)
<b>Total:</b>			<b>(19)</b>

\*Course must be taken twice.

**Suggested electives:**

Acct for Small Business	Acct	100	(3)
Intro to Business	Bus	100	
<b>(Or)</b>			
Honors Intro to Business	Bus	100H	
Business Math	Bus	125	(3)
Business Communication	Bus	139	(3)
Excel 2	Bus/CIS	234	(2)
Intro to Microsoft Access	CIS	135	(2)
Intro to Microsoft Outlook	CIS	137	(1)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## CONSTRUCTION TECHNOLOGY

The Construction Technology program has courses that can be divided into two major areas of emphasis: Residential Trades and Construction Management. Due to the vast diversity of occupations and areas of specialization within the construction industry and recognizing that individual student needs will be as diverse, a Certificate of Achievement can be designed that satisfies those specific needs. Completion of a certificate program satisfies the major requirement for the Associate in Science degree. Certificates of Achievement and Completion can be completed in one to two semesters.

### BASIC CONSTRUCTION PRACTICES

Construction Technology 165, Construction Safety/CAL-OSHA, is required for any first earned Certificate of Achievement.

It is recommended that all beginning, full-time students enroll in the following courses leading to a Certificate of Achievement.

#### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Construction Safety/CAL-OSHA	Const	165	(3)
Building Construction	Const	180	(5)
Blueprint Reading & Drafting	Const	190	(4)
Building Code & Law	Const	195	(3)
Residential Finish Carpentry	Const	240	(5)
<b>Total:</b>			<b>(20)</b>

#### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

### RESIDENTIAL CONSTRUCTION DEVELOPMENT

Students may select any combination of courses that total eighteen (18) or more units from the following list. Note: Construction Technology 165, Construction Safety/CAL OSHA, is required for any first earned Certificate of Achievement.

### RESIDENTIAL CONSTRUCTION DEVELOPMENT SECOND AWARD

## RESIDENTIAL CONSTRUCTION DEVELOPMENT THIRD AWARD

Students may earn a second and third award of the certificate by completing eighteen (18) or more units from the following list, however, no course may be applied to more than one certificate.

#### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Wood Technology 1	Const	110AD	(4)
Cabinet Making	Const	114AD	(4)
Introduction to Construction	Const	170	(3)
Building Construction	Const	180	(5)
Building Construction	Const	185	(5)
Blueprint Reading & Drafting	Const	190	(4)
Building Code & Law	Const	195	(3)
Concrete Construction	Const	210	(5)
Construction Estimating	Const	220	(3)
Land & Building Development	Const	225	(3)
Construction Inspection	Const	230	(3)
Contractor's Business Practice	Const	235	(3)
Residential Finish Carpentry	Const	240	(5)
Supervision and Project Mgmt	Const	250	(3)
Business Law for Contractors	Const	252	(1.5)
Construction Finance	Const	255	(3)
Masonry Construction	Const	260	(3)
Plumbing 1	Const	265	(4)
Contractor's License Law	Const	270AD	(1.5)
Residential Electrical Wiring	Const	275	(5)
Res Lt Steel Frame Const	Const	285	(5)
<b>Total:</b>			<b>(18)</b>

Minimum

#### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MASTER CONSTRUCTION SPECIALIST

This certificate is given to students who complete a minimum of 54 semester units. The terms "Master" and "Specialist" imply a very broad knowledge in several of the construction trades and management disciplines. Students who complete this program will have their names displayed on a perpetual "Award of Excellence" listing in the Construction Department.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Construction Safety/CAL OSHA	Const	165	(3)
Building Construction	Const	180	(5)
Blueprint Reading & Drafting	Const	190	(4)
Cabinet Making	Const	114AD	(4)
Concrete Construction	Const	210	(5)
Residential Finish Carpentry	Const	240	(5)
Plumbing 1	Const	265	(4)
<b>(Or)</b>			
Plumbing 2	Const	266	(4)
Residential Electrical Wiring	Const	275	(5)
Res Lt Steel Frame Const	Const	285	(5)
Intro to Info Sys & Appl	CIS	100	(3)
<b>(Or)</b>			
Computer Use in Technology	Comp HT	100	(3)
<b>Subtotal:</b>			<b>(43)</b>
<b>Select eleven (11) units from the following:</b>			
Building Construction	Const	185	(5)
Building Code & Law	Const	195	(3)
Construction Estimating	Const	220	(3)
Construction Inspection	Const	230	(3)
Supervision & Project Management	Const	250	(3)
Masonry Construction	Const	260	(3)
<b>Total:</b>			<b>(54)</b>

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## RESIDENTIAL CONSTRUCTION

### Professional Upgrade Certificates

Students may earn a Certificate of Completion in any of the subject areas specified.

#### CERTIFICATES OF COMPLETION

Course	Required Courses		Units
<b>Basic Carpentry</b>			
Building Construction	Const	180	(5)
Building Construction	Const	185	(5)
			<b>(10)</b>
<b>Finish Carpentry</b>			
Cabinet Making	Const	114AD	(4)
Building Code & Law	Const	195	(3)
Residential Finish Carpentry	Const	240	(5)
			<b>(12)</b>
<b>Concrete &amp; Masonry</b>			
Building Code & Law	Const	195	(3)
Concrete Construction	Const	210	(5)
Masonry Construction	Const	260	(3)
			<b>(11)</b>
<b>Residential Utilities</b>			
Plumbing 1	Const	265	(4)
Residential Electrical Wiring	Const	275	(5)
			<b>(9)</b>
<b>General Contracting &amp; Development</b>			
Construction Estimating	Const	220	(3)
Land & Building Development	Const	225	(3)
Contractor's Business Practice	Const	235	(3)
			<b>(9)</b>
<b>Construction Field Management</b>			
Blueprint Reading & Drafting	Const	190	(4)
Construction Inspection	Const	230	(3)
Supervision & Project Mgmt	Const	250	(3)
			<b>(10)</b>
<b>Introduction to Construction</b>			
Wood Technology 1	Const	110AD	(4)
Intro to Construction	Const	170	(3)
Intro to Info Sys & Appl	CIS	100	(3)
<b>(Or)</b>			
Computer Use in Technology	Comp HT	100	(3)
			<b>(10)</b>
<b>Construction Basics</b>			
Construction Safety/CAL-OSHA	Const	165	(3)
Blueprint Reading & Drafting	Const	190	(4)
Building Code & Law	Const	195	(3)
			<b>(10)</b>

## COSTUME CAREERS

The following certificates represent skill levels and job titles found in the fashion and entertainment technology industry. The certificate programs all require the same core set of courses. The certificates build skills toward higher levels of employment and toward higher degrees.

### CORE CURRICULUM

Course	Required Courses		Units
Beg Clothing Techniques*	Fash	100	(3)
Careers in Fashion	Fash	115	(3)
Intro to Theatre	Thart	100	(3)
Costume Crafts	Thart	178	(3)
OCC Theatre Repertory	Thart	141AD	(3)
<b>(Or)</b>			
Summer Theatre Festival	Thart	144AD	(4)
Play Production (take both 1st & 2nd 9 wks)	Thart	171AD	(4)
<b>(Or)</b>			
Elizabethan Play Wkshp & Production	Thart	172AD	(3)
<b>(Or)</b>			
Classic American Play Production	Thart	173AD	(2)
<b>(Or)</b>			
Children's Theatre Wkshp & Prdctn	Thart	174AD	(2)
<b>(Or)</b>			
Rehearsal & Performance	Thart	215	(2)

**Subtotal: (19)**

*\*Experienced sewers may demonstrate competency in techniques listed under Fashion 100 and 101AB by taking Fashion 105, Sewing Skills Assessment.*

### COSTUME DRESSER

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 costuming techniques, as well as basic theatrical production practices.

#### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Costume Core Curriculum			(19)
Applied Textiles & Design	Fash	110	(3)
OCC Theatre Repertory	Thart	141AD	(3)
Make-up	Thart	177AD	(3)
<b>Total:</b>			<b>(28)</b>
<b>Suggested electives:</b>			
Inter Clothing Techniques	Fash	101AB	(3)
OCC Theatre Repertory	Thart	141AD	(3)
Play Production	Thart	171AD	(2)

## COSTUME STITCHER

The courses in this program provide training in the specialized sewing techniques and other skills required to build a variety of costumes required in theatre and other performance acts. Students also receive training in basic theatrical production practices.

#### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Costume Core Curriculum			(19)
Inter Clothing Techniques* (3)	Fash	101AB	(6)
Industrial Sewing Techniques	Fash	102	(2)
Alterations	Fash	137	(2)
Couture Techniques	Fash	233	(2)
<b>Total:</b>			<b>(31)</b>

\*Course must be taken twice.

#### Suggested electives:

Flat Pattern Techniques	Fash	150	(3)
Play Production	Thart	171AD	(2)

*\*Experienced sewers may demonstrate competency in techniques listed under Fashion 100 and 101AB by taking Fashion 105, Sewing Skills Assessment.*

## COSTUME CUTTER/DRAPER

The courses in this certificate program train students to create patterns for costumes by flat-pattern and draping methods, and to cut out and assemble costumes for the performing arts. Students also receive training in basic theatrical production practices.

#### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Costume Core Curriculum			(19)
Costume Stitcher Curriculum			(9)
History of Fashion	Fash	120	(1.5)
Flat Pattern Techniques	Fash	150	(3)
Draping	Fash	235	(2)
Pattern Drafting & Design	Fash	245	(1.5)
<b>Total:</b>			<b>(36)</b>
<b>Suggested electives:</b>			
Pattern Grading	Fash	251	(1.5)
Play Production	Thart	171AD	(2)

## ASSISTANT COSTUME DESIGNER

High-level of responsibility to assist the designer in work such as costuming for film, TV, theme park entertainment, or 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 have design skills.

		<b>Required Courses</b>		
<b>Course</b>				<b>Units</b>
Costume Cutter/Draper Curriculum				(37.5)
Clothing Design & Selection	Fash	170		(3)
Fashion Internship	Fash	181		(4)
Fashion Illustrating Tech	Fash	255		(2)
Make-up	Thart	177AD		(3)
		<b>Total:</b>		<b>(49.5)</b>
<b>Suggested electives:</b>				
Color & Design 2-D	Art	110		(3)
Life Drawing	Art	121AD		(3)
Pattern Tech	Fash	155		(2.5)
Intro to Humanities	Hum	100		(3)
OCC Theatre Repertory	Thart	141AD		(3)
Play Production	Thart	171AD		(2)

— See also

ENTERTAINMENT TECHNOLOGY  
FASHION

## CULINARY ARTS

### CULINARY ARTS

The requirements for the Certificate of Achievement in Culinary Arts provide students with the basics in the methods and chemistry of cooking. These requirements include exposure to many kinds of menus, to techniques of traditional and specialty cooking, and to the proper ways to use various tools and culinary equipment.

This program is accredited by the American Culinary Federation Accrediting Commission.

#### CERTIFICATE OF ACHIEVEMENT

<b>Course</b>	<b>Required Courses</b>			<b>Units</b>
	<b>FALL</b>			
Intro to Hospitality Industry	C A	100		(3)
Culinary Principles 1	C A	120		(3)
Principles of Baking 1	C A	124		(2)
Pantry	C A	149		(2)
Sanitation & Safety	FSM	160		(3)
FSM Math/Accounting	FSM	240		(4)
	<b>SPRING</b>			
Culinary Principles 2	C A	122		(3)
Emergency Medical Care (3)	EMT	100		(2-3)
<b>(Or)</b>				
First Aid & CPR (2)	Hled	112		
Intro to Nutrition Concepts (2)	F N	140		(2-3)
<b>(Or)</b>				
Nutrition (3)	F N	170		
Food Production Management	FSM	151		(2)
Directed Practice*	FSM	286A		(2)
			<b>Total:</b>	<b>(28-30)</b>

\*Approved by Program Coordinator

#### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ADVANCED CULINARY ARTS

The requirements for the Certificate of Achievement in Advanced Culinary Arts include courses which lead to students' gaining a solid foundational knowledge of the restaurant and hospitality industry. Courses are designed for students who aspire to be any of the following: garde-manger, banquet chef, sous chef, working chef, and ultimately, Master Chef.

### CERTIFICATE OF ACHIEVEMENT

#### Required prerequisite:

Culinary Arts Certificate of Achievement

Course	Required Courses		Subtotal:	(28-30)
				Units
	<b>FALL</b>			
Garde Manger	C A	200		(2)
Culinary Principles 3	C A	245		(3)
Dining Room Service	FSM	190		(2)
Supervision & Training Tech	FSM	260		(3)
	<b>SPRING</b>			
Principles of Baking 2	C A	126		(2)
Advanced Garde Manger	C A	255		(2)
Ala Minute Continental Cooking	C A	265		(2)
Menu Planning/Purchasing	FSM	250		(3)
Restaurant Management	FSM	285		(3)
			<b>Total:</b>	<b>(22)</b>
				<b>(50-52)</b>
<b>Suggested electives:</b>				
Catering	FSM	284		(3)
Hospitality Sales/Marketing	Hotel	240		(3)

## BAKING AND PASTRY

The requirements for the Certificate of Achievement in Baking and Pastry Arts provide students with the fundamental knowledge of baking science and artful techniques required of bakers and pastry cooks. Students will gain hand-on knowledge of classic and contemporary patisserie and baking processes in addition to advanced pastry arts. Course work is designed for students that desire a career as a baker or pastry chef.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units	
	<b>FALL</b>			
Principles of Baking 1	C A	124	(2)	
Sanitation & Safety	FSM	160	(3)	
Math & Accounting	FSM	240	(4)	
	<b>SPRING</b>			
Principles of Baking 2	C A	126	(2)	
Directed Practice	C A	236A	(2)	
Intro to Nutrition Concepts	F N	140	(2)	
	<b>FALL</b>			
Principles of pastry Arts	C A	226	(3)	
Directed Practice	C A	236B	(2)	
			<b>Total:</b>	<b>(20)</b>

## COOK APPRENTICESHIP

The Cook Apprenticeship Certificate of Achievement will be awarded only upon completion of the three year American Culinary Federation approved apprenticeship program administered by the State of California Apprenticeship Board. Students are required to complete 2,000 hours per year for three years for a total of 6,000 hours in addition to completion of the Certificate of Achievement.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units	
	<b>FIRST YEAR</b>			
	<b>First Semester</b>			
Culinary Principles 1	C A	120	(3)	
Sanitation & Safety	FSM	160	(3)	
	<b>Second Semester</b>			
Intro to Hospitality Industry	C A	100	(3)	
Culinary Principles 2	C A	122	(3)	
	<b>SECOND YEAR</b>			
	<b>Third Semester</b>			
Principles of Baking 1	C A	124	(2)	
FSM Math/Accounting	FSM	240	(4)	
Intro to Nutrition Concepts (2)	F N	140		
<b>(Or)</b>			(2-3)	
Nutrition (3)	F N	170		
	<b>Fourth Semester</b>			
Menu Planning/Purchasing	FSM	250	(3)	
Supervision & Training Tech	FSM	260	(3)	
	<b>THIRD YEAR</b>			
	<b>Fifth Semester</b>			
Food Production Management	FSM	151	(2)	
Dining Room Service	FSM	190	(2)	
	<b>Sixth Semester</b>			
Garde Manger	C A	200	(2)	
Restaurant Management	FSM	285	(3)	
Emergency Medical Care (3)	EMT	100		
<b>(Or)</b>			(2-3)	
First Aid & CPR (2)	Hled	112		
			<b>Total:</b>	<b>(37-39)</b>

NOTE: FSM 160, Sanitation and Safety, is a prerequisite to all laboratory classes.

Program sequence may be modified to suit individual student needs.

### ASSOCIATE DEGREES

Complete the Certificate of Achievements for Advanced Culinary Arts or Baking and Pastry and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

# CULINOLOGY®

## CULINARY AND FOOD SCIENCES

The corporate headquarters of several restaurant chains as well as large and small food manufacturers are located in the Southern California area. Opportunities exist for persons trained in culinary arts and food science to find interesting and rewarding careers with these companies. Orange Coast College's Culinary and Food Sciences program is designed for students who are interested in working as assistants in the following field: food research and development, quality assurance, sensory, or flavor chemistry.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>FALL</b>		
Culinary Principles	C A	120	(3)
Pantry	C A	149	(2)
Careers in Dietetics/Food Sci	F N/N C	100	(1)
Nutrition	F N	170	(3)
Food Production Management	FSM	151	(2)
Sanitation & Safety	FSM	160	(3)
Intermediate Algebra	Math	030	(3)
<b>(Or)</b>			
Technical Math	Tech	040	(3)
	<b>SPRING</b>		
Principles of Baking	C A	124	(3)
Food Science	F N	195	(4)
Menu Planning & Purchasing	FSM	250	(3)
Preparatory General Chemistry	Chem	130	(4)
<b>(Or)</b>			
Principles of Chemistry	Chem	100	(3)
Internship Academy Level 2	Intern	393AB	(2-4)
	<b>Total</b>		<b>32-33</b>

# CULINOLOGY®

## Associate in Science Degree Program

The Culinology® transfer option is articulated with the Culinology® track of the Food Science and Technology major at Cal Poly Pomona, Department of Human Nutrition and Food Science, and the coursework has received approval from the Research Chefs' Association. Students must meet the Associate in Science requirements and have Orange Coast College certify their General Education coursework before transferring.

Culinology®, as defined by the Research Chefs' Association, is the blending of the culinary arts and the science of food. Students completing this certificate will have career opportunities in food manufacturing, chain restaurants, hotels, ingredient supply houses, consulting and academia, R & D, sales, marketing, manufacturing, distribution, and the media.

The Research Chefs' Association suggests that students take additional Culinary Arts courses such as CA 255, Advanced Garde Manger and CA 265, Ala Minute Continental Cooking to enhance their culinary skills.

*Culinology® students should obtain materials from the Transfer Center for complete details on transferable courses.*

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog. Students planning to transfer to Cal Poly Pomona need to complete General Education certification for the California State University System.

Course	Required Courses		Units
Culinary Principles	C A	120	(3)
Principles of Baking	C A	124	(3)
Pantry	C A	149	(2)
Garde Manger	C A	200	(2)
Preparatory General Chemistry	Chem	130	(4)
General Microbiology	Biol	210	(5)
Careers in Dietetics/Food Sci	F N/N C	100	(1)
Nutrition	F N	170	(3)
Food Science	F N	195	(4)
Sanitation & Safety	FSM	160	(3)
Food Production Management	FSM	151	(2)
Menu Planning & Purchasing	FSM	250	(3)
Internship Academy Level 2	Intern	393AB	(2-4)
Intro to Statistics	Math	160	(3)
<b>(Or)</b>			
Honors Intro to Statistics (3)	Math	160H	
<b>(Or)</b>			
Statistics for Behavioral Sci (3)	Psych	160	
	<b>Total:</b>		<b>(40)</b>

*Culinology® is the registered trademark of the Research Chefs Association.*

**DANCE**

**DANCE INSTRUCTOR**

The Dance certificate program trains students for positions in the commercial and artistic areas of dance. Graduates of the program would be qualified as instructors in ballet, modern, jazz and tap dance, and world dance forms in private studios, recreation or other community dance programs. The Dance Department also recommends that students complete their General Education Requirements for an Associate Degree.

Students are able to apply principles of movement and creativity to all forms of dance, demonstrate skills of instructing dance to communicate through movement and words, and apply information learned in other disciplines to the art form of dance.

Instruction will utilize both classroom work, using a variety of instructional methods (lecture, lab/demonstration, independent and group projects) and internship experiences in business/industry to prepare the student for job requirements.

**CERTIFICATE OF ACHIEVEMENT**

Course	Required Courses	Units
Pilates Mat Work	Danc 108AD	(.5-2)
<b>(Or)</b>		
Pilates Apparatus & Mat Work	Danc 128AD	
Improvisation	Danc 150AD	(1)
Intro to Choreography	Danc 160	(3)
Advanced Dance Composition	Danc 162AB	(3)
Music for Dancers	Danc 170	(2)
Appreciation of Dance	Danc 200	(3)
Rehearsal & Performance*	Danc 201AD	(1)
Dance Profession Seminar	Danc 205	(2)
Intro Dance Technology	Danc 206	(2)
Dance Methodology	Danc 210	(2.5)
Repertoire	Danc 211AD	(1-4)
Internship Academy	Intern 392AB	
<b>(Or)</b>		(1-4)
Internship Academy	Intern 393AB	
<b>Subtotal:</b>		<b>(22-29.5)</b>

Select at least ten (10) units of dance technique courses from at least four different dance styles:

Intro to World Dance	Danc 133AB	(.5-2)
Spanish Classical Dance	Danc 136AD	(.5-2)
Classical Dance of India	Danc 137AD	(.5-2)
American Vernacular	Danc 140AD	(.5-2)
Jazz Dance 2	Danc 143AD	(1-2)
Ballet 2	Danc 144AD	(.5-2)
Modern Dance 2	Danc 145AD	(.5-2)
Tap2	Danc 146AD	(.5-2)
Flamenco Dance 2	Danc 147AD	(.5-2)
Mid-Eastern Dance 2	Danc 148AD	(.5-2)
<b>(10)</b>		
<b>Total:</b>		<b>(32-39.5)</b>

\*Must perform in one student dance concert.

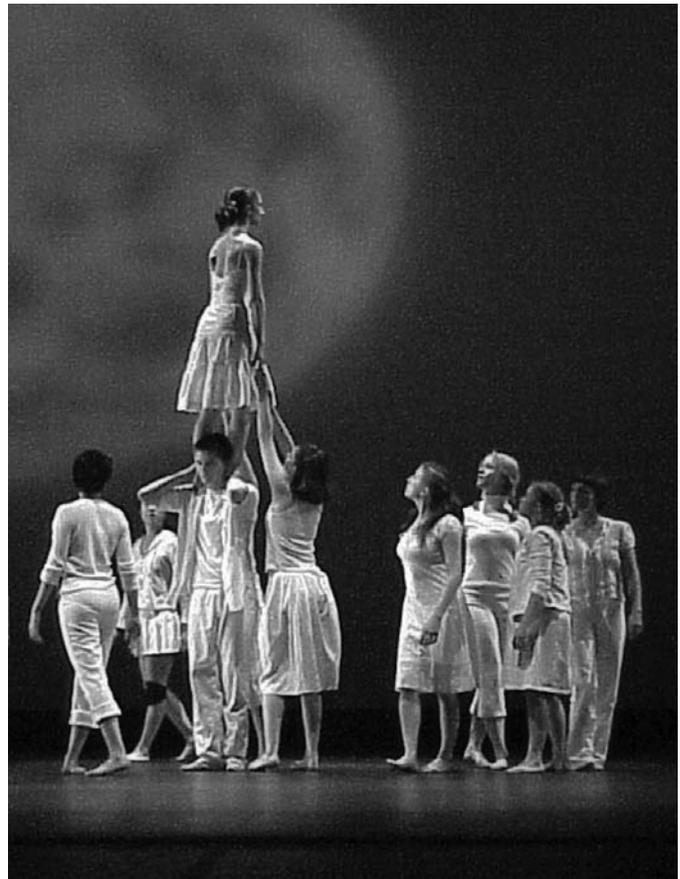
**CONTINUED NEXT COLUMN**

**Suggested electives:**

Anatomy & Physiology	Biol	221	(3)
Intro to Business	BUS	100	(3)
Personal Financial Success	BUS	120	(3)
Creativity for Children	E C	131	(3)
Health Education	Hled	100	(3)
Fitness & Health	Hled	134	(3)
Child Development	Hmdv	180	(3)
Intro to Psychology	Psych	100	(3)
Interpersonal Communication	Spcom	100	(3)

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.



## WORLD DANCE

The Dance certificate program trains students for positions in the commercial and artistic areas of dance. Graduates of the program would be qualified as instructors in private studios, recreation or other community dance programs, and act as consultants, lecturers, or performers with an emphasis on the ethnic dance forms, primarily Mid-Eastern, Flamenco, Spanish Classical, East Indian, or African (Nigeria/Ghana). The Dance Department also recommends that students complete their General Education Requirements for an Associate Degree.

Students are able to apply principles of movement and creativity to all forms of dance, demonstrate skills of instructing dance to communicate through movement and words, and apply information learned in other disciplines to the art form of dance.

Instruction will utilize both classroom work, using a variety of instructional methods (lecture, lab/demonstration, independent and group projects) and internship experiences in business/industry to prepare the student for job requirements.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
Pilates Mat Work <b>(Or)</b>	Danc 108AD	(.5-2)
Pilates Apparatus & Mat Work	Danc 128AD	
Improvisation	Danc 150AD	(1)
Intro to Choreography	Danc 160	(3)
Music for Dancers	Danc 170	(2)
Appreciation of Dance	Danc 200	(3)
Rehearsal & Performance*	Danc 201AD	(1)
Dance Profession Seminar	Danc 205	(2)
Intro to Dance Technology	Danc 206	(2)
Dance Methodology	Danc 210	(2.5)
Repertoire	Danc 211AD	(1-4)
Multicultural Behavior	Anth 150	(3)
Internship Academy <b>(Or)</b>	Intern 392AB	(1-4)
Internship Academy	Intern 393AB	

**Subtotal: (22-29.5)**

#### Select ten (10) units of ethnic dance technique from the following:

Intro to World Dance	Danc 133AB	(.5-2)
Spanish Classical Dance	Danc 136AD	(.5-2)
Classical Dance of India	Danc 137AD	(.5-2)
Dances of Africa	Danc 138AD	(.5-2)
Flamenco Dance 2	Danc 147AD	(.5-2)
Mid-Eastern Dance 2	Danc 148AD	(.5-2)

**(10)**

#### Select two (2) units from the following:

Modern Dance 1 <b>(Or)</b>	Danc 101AD	(.5-2)
Modern Dance 2	Danc 145AD	(.5-2)
Ballet 1 <b>(Or)</b>	Danc 110AD	(.5-2)
Ballet 2	Danc 144AD	(.5-2)
Jazz Dance1 <b>(Or)</b>	Danc 120AD	(.5-2)
Jazz Dance 2	Danc 143AD	(1-2)
Tap1 <b>(Or)</b>	Danc 125AD	(.5-2)
Tap 2	Danc 146AD	(.5-2)

**(2)**

**Total: (34-41.5)**

\*Must perform in one student dance concert.

**CONTINUED NEXT COLUMN**

### Suggested electives:

Nonverbal Behavior	Anth	105	(3)
Comparative Cultures	Anth	110	(3)
World Ethnology	Anth	285	(3)
Ethnic Groups in United States	Eth St	150	(3)
History & Appreciation of Music	Mus	100	(3)
World Religion	Phil	110	(3)
Eastern Thought	Rel St	150	(3)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## PILATES/DANCE CONDITIONING INSTRUCTOR

The Pilates/Dance Conditioning Instructor Certificate of Completion prepares the student to teach in a privately owned dance, fitness or Pilates studio, recreational facility, or health club. The student takes theory and technique courses on Pilates apparatus taught by Pilates certified specialists and learns methods to determine appropriate conditioning programs for people of all ages and physical conditions.

To prepare the student for employment, instruction uses both classroom work with a variety of instructional methods (lecture, lab/demonstration, independent and group projects), and internship experiences in dance and fitness facilities.

### CERTIFICATE OF COMPLETION

#### Required prerequisite:

Current First Aid/CPR certification

#### Required Courses

Course	Units
Pilates Mat Work	Danc 108AD (.5-2)
Kinesiology for Dancers	Danc 119 (3)
Pilates Apparatus & Mat Work	Danc 128AD (.5-2)
Advanced Pilates Seminar	Danc 208 (1.5-3)
Internship Academy-Level 2	Intern 392AB (2)

**Subtotal: (7.5-12)**

#### Select three (3) units from the following:

Strength & Stretch	Danc 106AB (.5-2)
Conditioning for Dance	Danc 107AD (.5-2)
Ballet Floor Barre/Correctives	Danc 114AB (.5-2)
Yoga for Dancers	Danc 115AC (.5-2)
Dance Workout/Maturing Body	Danc 118AB (.5-2)

**(3)**

#### Select one (1) course from the following:

Dance Profession Seminar	Danc 205 (2)
Intro to Dance Technology	Danc 206 (2)
Dance Methodology	Danc 210 (2.5)

**(2-2.5)  
(12.5-17.5)**

### Suggested electives:

Anatomy-Physiology	Biol	221	(4)
Gyrokinesis®	Danc	139AD	(.5-2)
Fitness & Health	P E	134	(3)
Intro to Adapted P E	P E	268	(2.5)
Fitness/Exercise Testing	P E	284	(3)
Strength & Conditioning/Theory	P E	289	(3)

Gyrokinesis® is the registered trademark of Gyrotonic Corp.

## DENTAL ASSISTING—REGISTERED

Dental assisting is a challenging field requiring skills in chairside assisting, dental radiology, preventive therapy, patient management, receptionist duties, expanded functions and office management.

Qualified dental assistants find employment opportunities in a variety of settings such as private dental offices, specialty practices, federal or state dental programs and dental schools.

The Dental Assisting program is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of approval. The commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The program is also accredited by the State of California Department of Consumer Affairs, Board of Dental Examiners, Committee on Dental Auxiliaries, 1426 Howe Avenue, Suite 50, Sacramento, CA 95825-3222.

RDA functions are taught to laboratory competency and clinical competency where applicable. A list of laboratory and clinical competencies is available upon request.

High school diploma or equivalency is required for program entry as mandated by the Commission on Dental Accreditation, American Dental Association.

Students must complete all required courses with a grade of "C" or better.

This program is a sequential program. All fall semester courses must be taken concurrently in the fall semester. All spring semester courses must be taken concurrently in the spring semester.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	Fall Semester		
Dental Anatomy	D A	100	(2)
Chairside Techniques 1	D A	110	(3)
Dental Materials	D A	120	(3)
Preventive Dentistry	D A	130	(1)
Dental Radiography 1	D A	140	(3)
Biomedical Sciences	D A	150	(2)
Clinical Experience 1	D A	160	(1)
<b>Intersession</b>			
Clinical Experience 2	D A	163	(1)
<b>Spring Semester</b>			
<b>First 14 weeks</b>			
Chairside Techniques 2	D A	115	(2)
Expanded Functions	D A	125	(2)
Dental Radiography 2	D A	145	(2)
Clinical Experience 3	D A	165	(2.5)
Prin Bus & Prac Mgmt	D A	175	(1.5)
<b>Last 2 weeks (32 Hrs/Week)</b>			
Clinical Experience 4	D A	168	(1)
Completion of Current CPR Certificate			
<b>Total:</b>			<b>(27)</b>

CONTINUED NEXT COLUMN

### Suggested electives:

Intro to Info Sys & Appl	CIS	100	(3)
Becoming a Master Student	Coun	102	(2)
Freshman Composition	Engl	100	(3)
Ethics	Phil	120	(3)
Introductory Psychology	Psych	100	(3)
Interpersonal Communication	Spcom	100	(3)
Public Speaking	Spcom	110	(3)

### Certification:

Program approved by the American Dental Association. Graduates are eligible to take the California Registered Dental Assistant Exam and the National Certification Exam upon program completion and qualify for their State radiation license and coronal polishing license.

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## DESIGN

The Certificate of Completion in Design was planned and developed by faculty from a variety of disciplines, such as architecture, fashion, interiors, art, and graphics. The program is designed to help students explore careers in design-related disciplines, to define, analyze, and apply the elements and principles of design in assessing personal interests, to research career opportunities and lifestyles, and to develop an educational plan for pursuing a career in a design-related field.

### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Design Exploration	DSGN	100	(3)
Design Careers & Lifestyles	DSGN	105	(2)
Design Careers Connection	DSGN	106AD	(.5)
<b>Subtotal:</b>			<b>(5.5)</b>
<b>Select one (1) from the following:</b>			
Intro to Architecture	Arch	110	(2)
Color & Design 2-D	Art	110	(3)
Freehand Drawing	Art	120	(3)
Applied Color & Design Theory	I D/Fash	175	(4)
Fundamentals of Interior Design	I D	100	(3)
Basic Photography	Photo	120	(3)
<b>Total:</b>			<b>(7.5-9.5)</b>

—See also

COMMERCIAL ART  
 COSTUME CAREERS  
 DIGITAL MEDIA ARTS AND DESIGN  
 DRAFTING (CADD)  
 ENTERTAINMENT TECHNOLOGY  
 FASHION

# DIAGNOSTIC MEDICAL SONOGRAPHY

## Associate in Science Degree

Diagnostic Medical Sonography is a technique using high frequency sound to create images of specific areas of the body from which pathology may be diagnosed. A competent Sonographer must have a thorough knowledge of anatomy, cross sectional anatomy, and pathology, as well as the skills to manipulate a wide variety of sophisticated instruments. This is a Commission on Accreditation of Allied Health Education Programs (CAA-HEP).

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

A "C" grade is required in all program courses.

#### Recommended preparation:

Becoming a Master Student	Coun	102	(2)
Technical Math*	Tech	040	(3)

#### Required prerequisites:

Health Occupations	AI H	010	(.5)
Medical Terminology	AI H	111	(3)
Anatomy-Physiology	Biol	221	(4)

**Subtotal: (7.5-12.5)**

\*(or Math 010 or higher or placement at Math 030 level)

#### Required Courses

Course			Units
<b>FALL</b>			
Patient Care	AI H	115	(2.5)
Human Diseases	AI H	120	(2)
Sectional Anatomy	Biol	223	(4)
Sono Physics/Instrumentation	DMS	150	(4.5)
<b>SPRING</b>			
Adv Sectional Anatomy	Biol	226	(3)
Intro to Vascular Ultrasound	DMS	155	(2.5)
Pathophysiology	DMS	265	(4)
Intro to Scanning Practice	DMS	165	(3)
Clinical Experience 1 (8 hrs/wk - 16 wks)	DMS	166	(2)
<b>SUMMER</b>			
Clinical Experience 2 (40 hrs/wk - 8 wks)	DMS	167	(5)

**CONTINUED NEXT COLUMN**

#### FALL

Advanced Vascular Ultrasound	DMS	255	(2.5)
Clinical Experience 3 (32 hrs/wk - 16 wks)	DMS	271	(7)
Sonographic Scanning Tech 1	DMS	274	(3)

#### INTERSESSION

Clinical Experience 4 (40 hrs/wk - 4 wks)	DMS	276	(2)
--	-----	-----	-----

#### SPRING

Sonographic Scanning Tech 2	DMS	275	(3)
Clinical Experience 5 (36 hrs/wk - 16 wks)	DMS	281	(9)

**Total: (66.5-71.5)**

#### Suggested elective:

Ethics	Phil	120	(3)
--------	------	-----	-----



# DIETETICS DIETETIC TECHNICIAN

## Associate in Science Degree

Students completing this program are prepared to join the dietetic team in various nutritional aspects of health care. Options in Nutrition Care (part of School of Allied Health Professions) or Food Service Management may be chosen. Graduates from this program are employed by acute care, long term care, and rehabilitation hospitals, as well as by community agencies that provide education in nutrition. Completion of the following courses, along with the Associate Degree program at Orange Coast College qualifies the student to sit for the National Dietetic Technician Registration exam and become a member of the American Dietetic Association.

*Dietetic transfer students obtain transfer materials from the Transfer Center for complete details on transferable courses.*

**Employment possibilities include:**

- Dietetic Technician in Hospital or Extended Care Facility**
- Public Health Department**
- Community Agency**

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

It is recommended that the student complete at least 15-17 units of general education requirements prior to entering the program.

**Required prerequisites:**

Health Occupations	AI H	010	(.5)
Medical Terminology	AI H	111	(3)
Sanitation & Safety*	FSM	160	(3)
<b>Subtotal:</b>			<b>(6.5)</b>

**Required Courses**

Course			Units
<b>FIRST SEMESTER</b>			
Patient Care	AI H	115	(2.5)
Quantity Foods Preparation*	C A	150	(4)
Nutrition*	F N	170	(3)
Supervision & Training Tech*	FSM	260	(3)
Careers in Dietetics/Food Sci	N C/F N	100	(1)
<b>SECOND SEMESTER</b>			
Applied Nutrition	F N	171	(2)
Food Production Management*	FSM	151	(2)
Health Care Field Exper*	N C	175	(3)
Intro Med Nutrition Therapy*	N C	180	(3)

*\*These courses meet the California Department of Health requirement for Dietetic Service Supervisor.*

**CONTINUED NEXT COLUMN**

Completion of the first year with a "C" grade in all courses is required before beginning second year.

Course			Units
<b>THIRD SEMESTER</b>			
Anatomy-Physiology	Biol	221	(4)
Menu Planning & Purchasing	FSM	250	(3)
Life Cycle Nutrition:Mother/Infant	F N	144	(1)
Life Cycle Nutrition:Children	F N	145	(1)
Life Cycle Nutrition:Later Years	F N	146	(1)
Intermediate Nutrition Care	N C	280	(2)
Supervised Practice 1	N C	281	(3)
<b>FOURTH SEMESTER</b>			
Applied Pharmacology	AI H	130	(2)
Food Science (4)	F N	195	
			(4-5)
<b>(Or)</b>			
Introductory Chemistry (5)	Chem	110	
Advanced Nutrition Care	N C	285	(2)
Supervised Practice 2	N C	286	(3)
			<b>(49.5-50.5)</b>
<b>Total:</b>			<b>(56-57)</b>

**Suggested electives:**

Human Diseases	AI H	120	(2)
Current Issues Food/Nutr/Food Sci	F N	199AD	(.5-1)
Child Development	Hmdv	180	(3)
Ethics	Phil	120	(3)
Introductory Sociology	Soc	180	(3)
Interpersonal Communication	Spcm	100	(3)

Upon successful completion of these courses (with grade of "C" or better) and the General Education Requirements, students will receive a Letter of Verification from the program director confirming that all requirements of the program have been met. Students will then be eligible for membership in the American Dietetic Association and for taking the National Registration Exam administered by the Commission on Dietetic Registration, the American Dietetic Association.

This program has been granted full accreditation by the Commission on Accreditation/Approval for Dietetics Education of the American Dietetics Association, 120 S. Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (800) 877-1600.

*See Nutrition Careers for related certificates.*

# DIGITAL MEDIA ARTS AND DESIGN

## GRAPHIC DESIGN

This program is designed for the person who wants a concentrated course of study in the field of digital media arts and design. Courses are designed to accommodate specific interest areas of application for both programmers and users.

The OCC Digital Media Arts and Design program is unique and bases its wide reputation on its emphasis on visual literacy. Concept development and the generation of a portfolio suitable for job applications or transfer to a degree program is a major focus in each of the core courses.

Students from a wide range of disciplines are discovering the creative visual potential of the computer and are applying their newly acquired skills in innovative ways, competing successfully on an international level with work generated here at OCC.

While the program provides broad-based entry level training for a variety of industries, students are encouraged to work toward an Associate in Arts degree.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
<b>First Semester</b>		
Color & Design 2-D	Art 110	(3)
Freehand Drawing	Art 120	(3)
Intro to Computer Graphics	DMA&D 181	(3)
<b>Second Semester</b>		
Lettering/Digital Typography	DMA&D 115	(4)
History of Graphic Design	DMA&D 151	(3)
Graphic Design	DMA&D 182AC	(4)
<b>Third Semester</b>		
Illus & Computer Graphics 1	DMA&D 190	(4)
Photo Graphics w/Photoshop1	DMA&D 193	(4)
Interactive Multimedia	DMA&D 200AB	(4)
<b>Fourth Semester</b>		
Rapid Illustration	DMA&D 117	(4)
Digital Prepress	DMA&D 183	(4)
2-D Animation	DMA&D 280AC	(4)
<b>Subtotal:</b>		<b>(44)</b>
<b>Additional course taken at any point:</b>		
Internship Academy	Intern 392AB	(2)
<b>Total:</b>		<b>(46)</b>

**CONTINUED NEXT COLUMN**

### Suggested electives:

Color & Design 3-D	Art	111	(3)
Application of Color Theory	Art	112	(3)
Product Illustration 1	Art	118	(2)
Life Drawing	Art	121AD	(3)
Painting 1	Art	130	(3)
Story Illustration Techniques	Art	143AD	(3)
Printmaking 1	Art	170	(3)
Cartooning 1	Art	269	(3)
Intro to Business	Bus	100	(3)
Small Business Ownership	Bus	240	(3)
Intro to Web Page Design	CIS	123	(2)
JavaScript Programming	CIS	171	(2)
ASP .NET Programming	CIS	224	(4)
Photo Graphics w/Photoshop 2	DMA&D	195AC	(4)
3-D Computer Graphics Animation	DMA&D	281AB	(4)
Image Processing Digital Video	DMA&D	262AC	(4)
Video Workshop	Film	110	(3)
Digital Film/Video Editing	Film	194	(3)
Intro to Humanities	Hum	100	(3)
Principles of Advertising	Mktg	130	(3)
Basic Photography	Photo	120	(3)
Art Photography	Photo	283AB	(4)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MULTIMEDIA

The Multimedia certificate is designed to prepare the student for an entry level position in the multimedia industry. The student will be exposed to a broad range of media, including art, photography, video, animation, music, text, and the techniques required to incorporate them into digital media.

Digital Media Arts and Design is an important sector of the economy and industry is eager to find qualified candidates who not only understand a particular media but also know how to put together multimedia projects.

### CERTIFICATE OF ACHIEVEMENT

Required Courses		Units	
Courses			
<b>First Semester</b>			
Color & Design 2-D	Art	110	(3)
Freehand Drawing	Art	120	(3)
Intro to Computer Graphics	DMA&D	181	(3)
<b>Second Semester</b>			
Photo Graphics w/Photoshop1	DMA&D	193	(4)
Video Workshop	Film	110	(3)
Computers in Music	Music	102AD	(3)
Basic Photography	Photo	120	(3)
<b>Third Semester</b>			
History of Media Arts	DMA&D	150	(3)
Image Processing Digital Video	DMA&D	262AC	(4)
2-D Animation	DMA&D	280AC	(4)
<b>Fourth Semester</b>			
Interactive Multimedia	DMA&D	200AB	(4)
Sound in Multimedia	DMA&D	265AD	(4)
3-D Computer Graphics Animation	DMA&D	281AB	(4)
<b>Subtotal:</b>		<b>(42)</b>	
<b>Additional course taken at any point:</b>			
Internship Academy	Intern	392AB	(2)
		<b>(2)</b>	
<b>Select one (1) from the following:</b>			
Contemporary Art History	Art	102	(3)
Illus & Computer Graphics 1	DMA&D	190	(4)
Digital Video Compositing	DMA&D	263AC	(4)
His & Appr of Cinema	Film	100	(3)
History & Aesthetics of Photo	Photo	130	(3)
<b>Total</b>		<b>(3-4)</b>	
<b>(47-48)</b>			
<b>Suggested electives:</b>			
Color & Design 3-D	Art	111	(3)
Life Drawing	Art	121AD	(3)
Story Illustration Techniques	Art	143AD	(3)
Photo Graphics w/Photoshop 2	DMA&D	195AC	(4)
Interactive Master Class	DMA&D	201AD	(4)
Documentary Video	DMA&D	264AC	(4)
Film Production	Film	240	(4)
Digital Film/Video Editing	Film	194	(3)
Fundamentals of Music	Music	115	(3)
Intro to Sound Reinforcement	Music	236AB	(3)
Recording Techniques	Music	261AB	(2)
Art Photography	Photo	283AB	(4)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## DISPLAY AND VISUAL PRESENTATION

This certificate is designed to prepare students seeking careers as display and exhibit designers and covers interior, industrial, thematic, and promotional displays. The training program includes consideration of the total visual presentation design and production, including store planning, service promotion mix applied to retailers, wholesalers (trade show), corporate display, visual identity, and exhibits in cultural institutions (museums and galleries). Students are encouraged to work toward an Associate in Arts degree.

### Employment possibilities include:

- Display Designer
- Visual Merchandising Stylist
- Display Division Assistant
- Display Manager/Director
- Regional Display Director
- Exhibit Designer
- Retail Space Planner/Designer

### CERTIFICATE OF ACHIEVEMENT

Required Courses		Units	
Course			
<b>FALL</b>			
Color & Design 2-D	Art	110	(3)
Freehand Drawing	Art	120	(3)
Exhibition Design (Gallery)	Art	145	(3)
Intro to Display & Visual Presentation	D&VP	180	(3)
Principles of Advertising	Mktg	130	(3)
<b>SPRING</b>			
Color & Design 3-D	Art	111	(3)
Wood Technology 1	Const	110AD	(4)
Graphic Design	DMA&D	182AC	(4)
Inter Display & Visual Presentation	D&VP	185	(3)
Basic Photography	Photo	120	(3)
<b>Total:</b>		<b>(32)</b>	
<b>Suggested electives:</b>			
Contemporary Art History	Art	102	(3)
Rapid Illustration Techniques	DMA&D	117	(4)
Basic Comp Aided Design/Draft	Draft	150AB	(4)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## DRAFTING TECHNOLOGY

### COMPUTER AIDED DESIGN/DRAFTING

With an emphasis in Architectural Technology, Electro-Mechanical, or Mechanical Design/Drafting. This option is designed to provide students with the basic skills to enter computer aided design/drafting in any one of several areas.

CADD instruction includes the use of hardware and software to develop working drawings in architectural, electronic and mechanical design drafting. The CADD lab is state-of-the-art equipped with IBM computers and Autocad software.

The student may receive a Certificate of Achievement in one or more areas of emphasis within the program.

#### CERTIFICATE OF ACHIEVEMENT

**Required prerequisite:**

Architectural Design Certificate of Achievement	(19)
<b>(Or)</b>	
Electro-Mechanical Design/Drafting Certificate of Achievement	(19)
<b>(Or)</b>	
Mechanical Design/Drafting Certificate of Achievement	(22)

**Subtotal: (19-22)**

Required Courses		Units
Course		
<b>FALL</b>		
Basic Comp Aided Dsgn/Draft	Draft	150AB (4)
<b>SPRING</b>		
<b>Select one or more of the following:</b>		
Adv Comp Aided Dsgn/Draft-Electro-Mechanical (4)	Draft	156 (4)
Adv Comp Aided Dsgn/Draft-Mechanical (4)	Draft	157 (4)
Adv Comp Aided Dsgn/Draft-Architectural (4)	Draft	158 (4)
<b>Total:</b>		<b>(27-47)</b>

*The student is encouraged to work towards attaining an Associate Degree in conjunction with the certificate.*

**Suggested electives:**

Intro to Info Sys & Appl	CIS	100	(3)
Intro to 3D CAD	Draft	159AB	(4)

#### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ELECTRO-MECHANICAL DESIGN/DRAFTING

This certificate program prepares students to enter the electronic drafting field utilizing skills of mechanical drafting and electrical drafting. Students learn to prepare schematic drawings, layout drawings, and art work "tape-ups" used in the production of printed circuit boards. The new electro/mechanical drafting lab is available to day and evening students.

#### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
<b>FALL</b>			
Basic Drafting Practices*	Draft	110	(4)
Manufacturing Processes	Mach	195	(3)
Technical Math**	Tech	040	(3)
<b>SPRING</b>			
Engineering Drafting Design 1	Draft	115	(4)
Technical Electronics	Elec	140	(3)
<b>FALL</b>			
Elec/Mech Drafting 1	Draft	140	(2)
<b>Total:</b>			<b>(19)</b>

*\*May substitute 2 years of high school mechanical drafting.*

*\*\*Two years of high school algebra or equivalent will satisfy this requirement.*

**Suggested electives:**

Basic Comp Aided Dsgn/Draft	Draft	150AB	(4)
Dimensioning	Draft	160	(4)
Intro to Machine Shop	Mach	100AB	(3)

#### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MECHANICAL DESIGN/DRAFTING

Mechanical Drafting instruction related to the four manufacturing processes, i.e., machining, casting, forging, and welding. Emphasis is placed on working drawings and precision dimensioning skills used in industry. Students may go immediately into industry as an entry-level drafter after the fourth semester.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>FALL</b>		
Basic Drafting Practices	Draft	110	(4)
Manufacturing Processes	Mach	195	(3)
	<b>SPRING</b>		
Engineering Drafting Design 1	Draft	115	(4)
Dimensioning	Draft	160	(4)
	<b>FALL</b>		
Engineering Drafting Design 2	Draft	120	(4)
Technical Math	Tech	040	(3)
	<b>Total:</b>		<b>(22)</b>
<b>Suggested electives:</b>			
Elec/Mech Drafting 1	Draft	140	(2)
Adv Comp Dsgn/Draft-Mech	Draft	157	(4)
Intro to 3D CAD	Draft	159AB	(4)
Intro to Machine Shop	Mach	100AB	(3)
Metallurgy	Mach	190	(2)

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## DRAFTING TECHNOLOGY

### Professional Upgrade Certificates

#### Electro/Mechanical CADD

This professional upgrade certificate program is designed for entry level employment, job upgrade for people currently working in the drafting industry, and those currently employed but wishing to re-enter the electro/mechanical and computer-assisted industry. Certificate will be awarded by the Drafting Technology Department, Technology Division.

#### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Engineering Drafting Design 1	Draft	115	(4)
Electro/Mechanical Drafting 1	Draft	140	(2)
Basic Comp Aided Dsgn/Draft	Draft	150AB	(4)
	<b>Total</b>		<b>(10)</b>

#### Computer Aided Drafting

This professional upgrade certificate program is designed for entry level employment preparation, job skills upgrade, vocational retraining in the fields of architecture, mechanical, electro/mechanical, interior design, or landscape design.

#### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Basic Comp Aided Dsgn/Draft	Draft	150AB	4
Adv Comp Aided Dsgn/Draft-Architectural	Draft	158	
Adv Comp Aided Dsgn/Draft-Mechanical	Draft	157	4
Adv Comp Aided Dsgn/Draft-Electro-Mechanical	Draft	156	
	<b>Total</b>		<b>8</b>

#### Dimensioning

This professional upgrade certificate program is designed for drafting/machine technology students preparing to enter the job market and individuals already in the field seeking an upgrade in their skills. Industry people involved in quality control, manufacturing, and/or engineering need to have a clear understanding of dimensioning practices. Those individuals also need to be literate in geometric dimensioning and tolerancing, a means of controlling geometric features of parts.

#### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Dimensioning	Draft	160	4
Dimensioning & Tolerancing	Mach	175	3
	<b>Total</b>		<b>(7)</b>

## EARLY CHILDHOOD EDUCATION

A certificate is earned by students who have developed skills necessary to work as teachers of infant, toddler, preschool, or special needs children in early childhood settings. Courses emphasize strong theoretical and practical skills needed to work with children birth to 2 years, 2-5 years, or birth to 5 years with disabilities. Courses fulfill Title 22 licensing requirements and Title 5 early childhood education course requirements for the Child Development Permit at the teacher level.

### CERTIFICATE OF ACHIEVEMENT

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

## CORE CURRICULUM

### Required Courses

Course			Units
Early Child Devel Thru Play	E C	155	(3)
Guidance for Young Children	E C	157	(3)
Observing & Recording			
Child Behavior	E C	165	(2)
Emergency Medical Care-Children	EMT	145	(1)
Child Development	Hmdv	180	(3)
Family-School-Community	Hmdv	190	(3)

(15)

### Select one (1) from the following:

Current Issues in E C	E C	199AD	(.5)
Learning Title 22	E C	261	(.5)
Disaster Preparedness	E C	262	(.5)
Child Abuse ID & Referral	E C	263	(.5)

(.5)

**Subtotal: (15.5)**

Choose OPTION 1 or 2 or 3 to Complete the Certificate of Achievement.

## OPTION 1—Infant & Toddler Teacher

### (Birth to 2 years)

### Required Courses

Course			Units
E C Core Curriculum			(15.5)
Cross-Cultural Perspectives	E C	126	(3)
Early Childhood Laboratory	E C	156	(2)
Infant/Toddler Curriculum	E C	218	(2)
Infant & Toddler Programs	E C	220	(3)
Infant & Toddler Field			
Experience	E C	221	(3)
Infant Development & Relationships	Hmdv	184	(3)

(16)

**Total: (31.5)**

## OPTION 2—Preschool Teacher

### (2-5 years)

### Required Courses

Course			Units
E C Core Curriculum			(15.5)
Early Childhood Laboratory	E C	156	(2)
Language Arts in Preschool	E C	130	
<b>(Or)</b>			(3)
Language/Literacy Development	Hmdv	280	
Creativity for Children	E C	131	
<b>(Or)</b>			(3)
Science for Young Children	E C	132	
Preschool Programs-Curriculum	E C	200	(3)
Early Childhood Field			
Experience	E C	201	(3)

(14)

### Select one (1) from the following:

Intro to E C Education	E C	105	(3)
Cross-Cultural Perspectives	E C	126	(3)
The Exceptional Child	Hmdv	210	(3)

(3)

**Total: (32.5)**

## OPTION 3—Early Intervention Aide

### Required Courses

Course			Units
E C Core Curriculum			(15.5)
Early Childhood Laboratory	E C	156	(2)
Bldg Partnerships w/Families	E C	174	
<b>(Or)</b>			(3)
Cross-Cultural Perspectives	E C	126	
Inclusion Child w/Disabilities	E C	240	(3)
Field Exp Child w/Special Needs	E C	241	(3)
The Exceptional Child	Hmdv	210	(3)

(14)

### Select one (1) from the following:

Preschool Programs-Curriculum	E C	200	(3)
Infant & Toddler Programs	E C	220	(3)
Early Primary Curriculum:			
Materials & Methods	E C	230	(3)

(3)

**Total: (32.5)**

### ASSOCIATE DEGREES

Complete the Certificate of Achievement Option 1 or 2 or 3 and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## EARLY CHILDHOOD ADMINISTRATION

Students who already have Early Childhood certificates may qualify to become directors or administrators of early childhood centers by earning this Early Childhood Administration certificate.

### CERTIFICATE OF ACHIEVEMENT

#### Required prerequisite:

Early Childhood Education Certificate of Achievement Option 1, Infant/Toddler Teacher

**(Or)**

Early Childhood Education Certificate of Achievement Option 2, Preschool Teacher

**(Or)**

Early Childhood Education Certificate of Achievement Option 3, Early Intervention Aide

**Subtotal: (31.5) or (32.5) or (32.5)**

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

#### Required Courses

Course			Units
Early Childhood Adm-Program	E C	275	(3)
Early Childhood Management	E C	276	(3)
Life Cycle Nutrition: Children	F N	145	(1)
Human Relations/Supervision	Mgmt	115	(3)

**(10)**

#### Select 1.5 units from the following:

Current Issues in E C	E C	199AD	(.5-2)
Learning Title 22	E C	261	(.5)
Disaster Preparedness	E C	262	(.5)
Child Abuse ID & Referral	E C	263	(.5)

**(1.5)**

**Total: (43) or (44)**

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## TEACHER AIDE

Students completing this certificate meet federal requirements mandated by the No Child Left Behind Act and are qualified for employment as public school classroom aides. Completion of this certificate can serve as a first step for students pursuing careers in teaching. All courses transfer to CSU.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

Course			Units
Educational Appl of Technology	CIS	112	(2)
Teach in Diverse Contemp Clrms	Educ	102	(1)
The Teaching Profession	Educ	200	(3)
Freshman Composition	Engl	100	(3)
World Regional Geography	Geog	100	(3)
Child Development	Hmdv	180	(3)
Middle Childhood Development & Guidance	Hmdv	182	(3)
Family-School-Community	Hmdv	190	(3)
Language/Literacy Development	Hmdv	280	(3)
Activity-Based Statistics	Math	103	(3)
Math for Elem Teachers 1	Math	104	(3)
Intro to Government	Pol Sc	180	(3)
Public Speaking	Spcom	110	(3)

**Subtotal: (36)**

#### Select one (1) from the following:

Principles of Biology	Biol	100	(4)
Earth Science for Teachers	Geol	106	(4)

**(4)**

#### Select one (1) from the following:

World Civilizations to 17th Cen	Hist	102	(3)
History of U.S. to 1876	Hist	170	(3)

**(3)**

#### Select at least six (6) units from the following:

Appreciation of Dance	Danc	200	(3)
Fundamentals of Music	Mus	115	(3)
Drama & Acting	Thart	105	(3)

**(6)**

**Total (49)**

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## SCHOOL-AGE CHILD CARE

This certificate, for students who want to work with children ages 6-12 in after-school programs, provides developmentally based courses designed to teach students how to provide competent after-school care for school-age children.

### CERTIFICATE OF COMPLETION

<b>Required Courses</b>			
<b>Course</b>			<b>Units</b>
Current Issues in E C	E C	199AD	(.5)
School-Age Creative Activities	E C	229	(3)
School-Age Field Experience	E C	231	(3)
Emergency Medical Care-Children	EMT	145	(1)
Family-School-Community	Hmdv	190	(3)
Middle Childhood Development & Guidance	Hmdv	182	(3)
<b>Subtotal:</b>			<b>(13.5)</b>
<b>Select one (1) of the following:</b>			
Cross-Cultural Perspectives	E C	126	(3)
Creativity for Children	E C	131	(3)
Science for Young Children	E C	132	(3)
Early Child Devel Thru Play	E C	155	(3)
Early Primary Curriculum: Materials & Methods	E C	230	(3)
Language/Literacy Development	Hmdv	280	(3)
			<b>(3)</b>
<b>Total:</b>			<b>(16.5)</b>

## FAMILY CHILDCARE PROVIDER

### CERTIFICATE OF COMPLETION

<b>Required Courses</b>			
<b>Course</b>			<b>Units</b>
Early Child Devel Thru Play	E C	155	(3)
Emergency Medical Care-Children	EMT	145	(1)
Life Cycle Nutrition: Children	F N	145	(1)
Child Development	Hmdv	180	(3)
Family-School-Community	Hmdv	190	(3)
<b>Subtotal:</b>			<b>(11)</b>
<b>Select one (1) of the following:</b>			
Preschool Programs-Curriculum	E C	200	(3)
School-Age Creative Activities	E C	229	(3)
Infant Development & Relationships	Hmdv	184	(3)
			<b>(3)</b>
<b>Total:</b>			<b>(14)</b>

## ELECTRONICS TECHNOLOGY

The Electronics Technology program trains students in those basic skills necessary for immediate employment and provides the foundation for more advanced studies.

Electronics is an industrial area of growth and opportunity. Constantly upgrading new technologies have created a strong demand for employees well prepared as electronic maintenance technicians. Employment opportunities also exist in many related fields, such as computer networks, communication systems, automation & motor control, heating ventilation and air conditioning avionics, biomedical instrumentation, and engineering. The employment outlook in communities surrounding Orange County continues to be excellent.

The electronic technician industrial employment classifications are level 1 in which troubleshooting focus in on the individual system. Level 2 in which the troubleshooting focus is on an individual sub-assembly with the system. Level 3 in which the troubleshooting focus is on an individual component with the sub-assembly.

Orange Coast College offers individual certificates of completion and achievement in the specialized service areas of maintenance, assemblers, engineering tech, computer hardware, automation & motor controls, and communication. Each area of specialization is an extension of the core courses which make up the common theoretical principles upon which all electronic systems are based.

The Associate Degree is strongly recommended for students planning a career in Electronic Technology.

## ELECTRONICS MAINTENANCE

### CERTIFICATE OF COMPLETION

These core courses prepares a student for entry level employment which requires skills in the basic fundamentals of electricity, schematic reading and test instruments used in maintaining and operating electronic and electrical systems. These courses make up the cores for the certificates of achievement offered by the Electronics Technology Program.

<b>Required Courses</b>			
<b>Course</b>			<b>Units</b>
Elec Problem Solving	Elec	047*	(3)
Intro to Digital Logic	Elec	135	(3.5)
Intro to Basic Computer Installation	Elec	146AD	(3)
Direct Current Circuits	Elec	150	(3)
Alternating Current Circuits	Elec	155	(3)
<b>Total:</b>			<b>(15.5)</b>

*\*A basic college math course in algebra and trigonometry may be substituted.*

## ELECTRONICS ASSEMBLER

### CERTIFICATE OF ACHIEVEMENT

This option prepares the student for employment as an electronic assembler and Quality Assurance inspector. These courses develop a foundation in electronics that is well recognized by all electronic manufacture and service industries. These courses develop diagnostic skills and prepare the student for employment as a level 1 (systems) Diagnostic Technician. Upon completion of the required courses the student is encouraged to take the CEA (Certified Electronics Assembler) exam administered by a third party agency well recognized by the electronics industry.

Course			Units
Electronics Maintenance			(15.5)
Electronic Construction	Elec	170	(3)
<b>Total:</b>			<b>(18.5)</b>

## ELECTRONICS ENGINEERING TECHNICIAN

### CERTIFICATE OF ACHIEVEMENT

This option prepares the student to perform level 3 technician diagnostics: troubleshooting and repair at level 1 (systems), level 2 (sub assembly), and level 3 (component). Students completing this course of study will be successful in any electronic related field. Upon completion the student is encouraged to take the CET (Certified Electronics Technician) exam administered by a third party agency well recognized by the electronics industry.

Course			Units
Electronics Maintenance			(15.5)
Electronic Construction	Elec	170	(3)
Applied Digital Circuits	Elec	245	(4)
Analog Semiconductor Circuits	Elec	260	(4)
<b>Subtotal:</b>			<b>(26.5)</b>

#### Select three (3) units from the following:

G.R.O.L. & Avionics Rules & Regulations	AMT	188	(1.5)
Computer Use in Technology	Comp HT	100	(3)
Computer Installation & Repair	Elec	246	(3)
Programmable Logic controllers	Elec	253AB	(1.5)
Electronic Troubleshooting	Elec	290	(3)
<b>Subtotal:</b>			<b>(29.5)</b>

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ELECTRONICS COMPUTER HARDWARE TECHNICIAN

### CERTIFICATE OF ACHIEVEMENT

This certificate option develops level 2 (sub assembly) technician skills. The student will learn how to install, configure, modify, diagnose, and repair computer systems. Upon completion the student is encouraged to take the "A+" Computer Hardware Technician exam administered by a third party agency well recognized by the electronics industry.

Course			Units
Electronics Maintenance			(15.5)
Applied Digital Circuits	Elec	245	(4)
Computer Installation & Repair	Elec	246	(3)
<b>Total:</b>			<b>(22.5)</b>

#### Suggested electives:

Computer Use in Technology	Comp HT	100	(3)
Intro to Info Sys & Microcomputer App	CIS	100	(3)
Intro to Info Systems & Programming	C S	111	(4)

## AUTOMATION AND MOTOR CONTROL

### CERTIFICATE OF ACHIEVEMENT

This certificate option develops level 2 (sub assembly) technician skills. The student will learn how to install, configure, modify, diagnose, and repair automation control systems. This field includes robotic assembly, automated inventory control, and hearing ventilation and air conditioning systems.

Course			Units
Electronics Maintenance			(15.5)
Programmable Logic Control	Elec	253AB	(1.5)
<b>Subtotal:</b>			<b>(17)</b>

#### Select three (3) units from the following:

Computer Installation & Repair	Elec	246	(3)
Analog Semiconductor Circuits	Elec	260	(4)
Internship Academy – Level 2	Intern	392AB	(3)
<b>Total:</b>			<b>(20)</b>

## ELECTRONIC COMMUNICATIONS TECHNICIAN

### CERTIFICATE OF ACHIEVEMENT

This certificate option develops level 2 (sub assembly), technician skills. The student will learn how to install, calibrate, modify, diagnose, and repair Radio Frequency (RF) systems. Upon completion the student is encouraged to take the General Radio Operator License (GROL) Technician exam administered by the Federal Communications Commission (FCC).

Course			Units
Electronics Maintenance			(15.5)
G.R.O.L. & Avionics Rules & Regulations	AMT	188	(1.5)
Communications systems	Elec	215	(3)
Analog Semiconductor Circuits	Elec	260	(4)
<b>Subtotal:</b>			<b>(24)</b>

**Select three (3) units from the following:**

Computer Installation & Repair	Elec	246	(3)
Eleconronic Troubleshooting	Elec	290	(3)
Internship Academy – Level 2	Intern	392AB	(3)
<b>Total:</b>			<b>(27)</b>



## EMERGENCY MEDICAL TECHNICIAN– I /BASIC

EMT-1 certification is required to work for an ambulance service or in an emergency room and may be required for lifeguards, ski patrol and fire fighters. The EMT-1 provides the care necessary to preserve life and to prevent disability among the acutely ill and the seriously injured.

The EMT-1 must have basic knowledge of anatomy and physiology, medical terminology and sterile techniques. The course of study emphasizes treating traumatic injuries and medical emergencies, as well as treating minor disorders and emotional problems. Specialized areas include obstetrical and pediatric emergencies and extricating entrapped persons.

Successful completion of the EMT-1 course qualifies the student to sit for the EMT-1 county certifying examination.

The EMT-1 course is a prerequisite for paramedic training. Job opportunities are good.

### CERTIFICATE OF COMPLETION

Required Courses			
Course			Units
EMT-1/Basic*	EMT	150	(6)
EMT-1 Clinical Internship	EMT	151	(.5)
<b>Total:</b>			<b>(6.5)</b>
Suggested electives:			
Medical Terminology	AI H	111	(3)
Anatomy-Physiology	Biol	221	(4)
Interpersonal Communication	Spcom	100	(3)

*\*Note: First Responder Certification and American Heart Association Healthcare Provider CPR or American Red Cross Professional Rescuer CPR or EMT 100 are prerequisites for EMT 150. Concurrent enrollment in EMT 151 is required.*

## ENTERTAINMENT TECHNOLOGY

The Orange Coast College Entertainment Technology certificate program is designed to give the student two years of extensive technical experience in the process of creating the scenery, costumes, lighting, or sound effects common to all aspects of the entertainment industry.

Through an intensive program of production work in the OCC Theatre Arts Department, combined with classes throughout the college, the student will acquire the theory, applied training, and work-based experience needed to gain entry-level positions in this highly competitive industry.

### CORE CURRICULUM

Course	Required Courses	Units
Intro to Theatre	Thart 100	(3)
OCC Theatre Repertory	Thart 141AD*	(3)
<b>(Or)</b>		
Summer Theatre Festival	Thart 144AD	(4)
Stage Crew Activity	Thart 170AD*	(2)
Play Production	Thart 171AD*	(4)
<b>(Or)</b>		
Elizabethan Play Wkshp & Production	Thart 172AD	(3)
<b>(Or)</b>		
Classic American Play Production	Thart 173AD	(2)
<b>(Or)</b>		
Children's Theatre Wkshp & Prdctn	Thart 174AD	(2)
<b>(Or)</b>		
Rehearsal & Performance	Thart 215	(2)
Performing Arts Management	Thart 276	(2)
Internship Academy	Intern 393AB	(3)
<b>Total:</b>		<b>(20)</b>

(\*2 semesters required)

## SCENIC ARTIST

This program is designed to give students a concentrated background in the art techniques and theatrical theory and production practices required to recreate a scenic designer's artwork on a large scale for theatre, theme parks, or other entertainment uses.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
Entertainment Core Curriculum		(20)
History/Apprec Western Art	Art 100	(3)
History/Apprec Western Art	Art 101	(3)
Color & Design 2-D	Art 110	(3)
Freehand Drawing	Art 120	(3)
Perspective	Art 125	(3)
Painting 1	Art 130	(3)
Life Painting	Art 236AD	(3)
Rendering & Rapid Visualization	I D 260	(2)
Stage Scenery	Thart 175	(3)
Elements of Stage Design	Thart 271	(3)
<b>Total:</b>		<b>(49)</b>

#### Suggested electives:

Application of Color Theory	Art 112	(3)
Color & Design 3-D	Art 111	(3)
(And)		
History of Architecture 1 (3)	Arch 290	
Intro to Computer Graphics	DMA&D 181	(3)
History of Architecture 2 (3)	Arch 296	
<b>(Or)</b>		<b>(6)</b>
History Arch/Furnishings 1 (3)	I D 180	
History Arch/Furnishings 2 (3)	I D 190	

## SCENIC CARPENTER

The courses in this program provide training in the basic skills required to build the wide variety of scenic elements used in the entertainment industry, as well as training in the theory and practice of theatrical production.

### CERTIFICATE OF ACHIEVEMENT

Course	Required courses	Units
Entertainment Core Curriculum		(20)
Arch Drawing&Design Visual 1	Arch 105	(2)
Wood Technology 1	Const 110AD	(4)
Residential Finish Carpentry	Const 240	(5)
Technical Math	Tech 040	(3)
Stage Scenery	Thart 175	(3)
Arc & Oxy Welding	Weld 100	(3)
Advanced Welding	Weld 200	(3)
<b>Total:</b>		<b>(43)</b>
<b>Suggested electives:</b>		
History Arch/Furnishings 1	I D 180	(3)
History Arch/Furnishings 2	I D 190	(3)
Practical Math	Math N005	(3)
Elements of Design	Thart 271	(3)
Weld Testing Basic	Weld 105AD	(.5)

## LIGHTING TECHNICIAN

This program is intended to give a fundamental understanding of electronics and wiring in conjunction with practical and theoretical knowledge of lighting equipment and the processes used in show production.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Entertainment Core Curriculum			(20)
Elec Problem Solving	Elec	047	(3)
Technical Electronics	Elec	140	(3)
Stage Lighting	Thart	176	(3)
<b>Total:</b>			<b>(29)</b>
<b>Suggested electives:</b>			
Intro to Digital Logic	Elec	135	(3.5)
Electronic Construction	Elec	170	(3)
Communications Systems	Elec	215	(3)
Analog Semiconductor Circuits	Elec	260	(4)
Electronic Troubleshooting	Elec	290	(3)
Fundamentals of Lighting	ID	210	(3)

## AUDIO TECHNICIAN

This program is intended to give a fundamental understanding of electronics and wiring in conjunction with the practical and theoretical knowledge of audio equipment and the processes used in show production.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Entertainment Core Curriculum			(20)
Elec Problem Solving	Elec	047	(3)
History/Appreciation of Music	Mus	100	(3)
Computers in Music	Mus	102AD	(3)
Intro to Sound Reinforcement	Mus	236AB	(3)
Concert Sound Engineering	Mus	237AB	(3)
Recording Techniques	Mus	261AB	(2)
Film/Video Sound	Film	193	(3)
Stage Lighting	Thart	176	(3)
<b>Total:</b>			<b>(43)</b>
<b>Suggested electives:</b>			
Intro to Digital Logic	Elec	135	(3.5)
Electronic Construction	Elec	170	(3)
Communications Systems	Elec	215	(3)
Analog Semiconductor Circuits	Elec	260	(4)
Electronic Troubleshooting	Elec	290	(3)

—See also COSTUME CAREERS  
FASHION

## ETHNIC STUDIES

Completing the Ethnic Studies Certificate of Achievement program provides students with an in-depth background and understanding of multicultural issues.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Native American	Anth	102	(3)
Comparative Cultures	Anth	110	(3)
Contemporary Ethnic America	Eth Stu	100	(3)
Ethnic Groups of the US	Hist/E S	150	(3)
Multicultural Behavior	Soc/Anth	150	(3)
The Ethnic Family	Soc/E S	190	(3)
<b>Subtotal:</b>			<b>(18)</b>
<b>Select at least nine (9) units from the following:</b>			
World Ethnology	Anth	285	(3)
Afro-American History	Hist	101	(3)
Mexican-American Heritage	Hist	110	(3)
The Other Americas	Hist	115	(3)
History of Modern China	Hist	128	(3)
World Religion	Phil/Rel	110	(3)
Contemporary Chicano	Soc	115	(3)
<b>Total:</b>			<b>(27)</b>

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ETHNIC STUDIES

Completing the Ethnic Studies Certificate of Completion provides students with an introductory background and understanding of multicultural issues.

### CERTIFICATE OF COMPLETION

Required Courses			
Course			Units
Contemporary Ethnic America	Eth Stu	100	(3)
Ethnic Groups of the US	Hist/E S	150	(3)
Multicultural Behavior	Soc/Anth	150	(3)
<b>Total:</b>			<b>(9)</b>

## FAMILY AND CONSUMER SCIENCES

Students with degrees in Family and Consumer Sciences can be employed as consumer affairs specialists, family life educators, and education program specialists in business, industry, government, and cooperative extension. Students who want to teach Family and Consumer Science courses in middle and high schools should complete this degree and transfer to CSU and complete the requirements for a single subjects teaching credential.

### ASSOCIATE DEGREE PROGRAM

This is an Associate Degree program which requires an Associate Degree or higher from an accredited college before the certificate will be awarded. Students who do not already have a degree must complete the Orange Coast College Graduation Requirements for the AA Degree including General Education Options 1, 2 or 3.

Students completing this transfer oriented degree program should consult the lower division requirements in the university or college catalog of their choice or the Transfer Information section of this catalog.

Course	Required Courses		Units
Clothing Design & Selection	Fash	170	(3)
Applied Color/Design Theory	Fash/I D	175	(4)
Prin of Clothing Construction	Fash	180AB	(3)
Nutrition	F N	170	(3)
Principles of Food	F N	180	(3)
Life Management	FCS	180	(3)
Sanitation & Safety	FSM	160	(3)
Child Development	Hmdv	180	(3)
Fund of Interior Design	I D	100	(3)

**Total: (28)**

This program will meet major requirements for the Associate in Arts degree and most of the courses have been articulated with CSULB. Students should consult the Transfer Information section of this catalog for specific transfer information.

## FASHION

Five certificate options are available through the Fashion Department: 1) Design, 2) Production/Product Development, 3) Apparel Construction, 4) Fashion Merchandising, and 5) Costume.

Completion of the Fashion certificate programs prepares students for careers in the fashion industry and in related businesses. Students may also transfer to programs at four-year colleges.

### Employment possibilities include:

<b>Patternmaker</b>	<b>Cutter</b>
<b>Grader</b>	<b>Educator</b>
<b>Designer/Assistant Designer</b>	<b>Production Manager</b>
<b>Self-Employed</b>	<b>Quality Control</b>
<b>Fashion Illustrator</b>	<b>Color Consultant</b>
<b>Marker Maker</b>	<b>Figure Analyst</b>
<b>Dressmaker</b>	<b>Personal Shopper</b>
<b>Alterationist</b>	<b>Image/Fashion Consultant</b>
<b>Sample Maker</b>	<b>Computer-Assisted Careers</b>
<b>Stylist</b>	<b>Special Events Assistant</b>
<b>Management Trainee</b>	<b>Assistant Fashion Buyer</b>
<b>Department Manager</b>	<b>Fashion Resource Sales Trainee</b>

### ASSOCIATE DEGREES

Students are encouraged to complete the Associate degree. Complete the Fashion Certificates of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## CORE CURRICULUM

Course	Required Courses		Units
Applied Textiles & Design	Fash	110	(3)
Careers in Fashion	Fash	115	(3)
History of Fashion	Fash	120	(1.5)
Street Style	Fash	121	(1.5)
Clothing Design & Selection	Fash	170	(3)
<b>Total:</b>			<b>(12)</b>

## DESIGN

### Certificate of Achievement

Required Courses				Units
Course				
Fashion Core Curriculum				(12)
Color & Design 2-D	Art	110		(3)
Freehand Drawing	Art	120		(3)
Intro to Computer Graphics	DMA&D	181		(3)
Beg Clothing Techniques	Fash	100		(3)
Industrial Sewing Techniques	Fash	102		(2)
Intro to Fashion on Computr	Fash	108		(2)
Trend Forecasting	Fash	118	(1.5)	
Design in Everyday Life	Fash	135		(1)
Flat Pattern Techniques	Fash	150		(3)
Applied Color & Design Theory	Fash/I D	175		(4)
Fashion Internship	Fash	181		(4)
Fashion Illustrating Tech	Fash	255		(2)
Fashion Dsgn/Production Concepts & App	Fash	260		(3)
<b>Total:</b>				<b>(46.5)</b>

#### Suggested electives:

Intro to Art	Art	107		(3)
Color & Design 3-D	Art	111		(3)
Intro International Business	Bus	118		(3)
Business Math	Bus	125		(3)
Business English	Bus	138		(3)
Intro to Info Sys & Appl	CIS	100		(3)
Illus & Computer Graphics 1	DMA & D	190		(4)
Draping	Fash	235		(2)
Inter Clothing Techniques	Fash	101AB		(3)

## PRODUCTION/PRODUCT DEVELOPMENT

### Certificate of Achievement

Required Courses				Units
Course				
Fashion Core Curriculum				(12)
Beg Clothing Techniques	Fash	100		(3)
Int Clothing Techniques* (3)	Fash	101AB		(6)
Industrial Sewing Techniques	Fash	102		(2)
Evaluation of Apparel Quality	Fash	140	(1.5)	
Flat Pattern Techniques	Fash	150		(3)
Pattern Tech	Fash	155	(2.5)	
Fashion Internship	Fash	181		(4)
Fashion Dsgn/Production Concepts & App	Fash	260		(3)
Computerized Pattern System	Fash	266AB		(1)
<b>Total:</b>				<b>(39)</b>

\*Course must be taken twice

#### Suggested electives:

Intro to Int'l Business	Bus	118		(3)
Business Math	Bus	125		(3)
Business English	Bus	138		(3)
Intro to Info Sys & Appl	CIS	100		(3)
Draping	Fash	235		(2)
International Marketing	Mktg	150		(3)

## APPAREL CONSTRUCTION

### Certificate of Achievement

Required Courses				Units
Course				
Fashion Core Curriculum				(12)
Beg Clothing Techniques	Fash	100		(3)
Inter Clothing Techniques* (3)	Fash	101AB		(6)
Industrial Sewing Techniques	Fash	102		(2)
Tailoring	Fash	130AB		(2)
Alterations	Fash	137		(2)
Pattern Tech	Fash	150		(3)
Flat Pattern Application	Fash	155		(3)
Fashion Internship	Fash	181		(4)
Couture Techniques	Fash	233		(2)
Draping	Fash	235		(2)
Pattern Drafting	Fash	245		(1.5)
Pattern Grading	Fash	251		(1.5)
<b>Total:</b>				<b>(44)</b>

\*Course must be taken twice.

*Note: Experienced sewers may demonstrate competency in techniques listed under Fashion 100 and 101AB by taking Fashion 105.*

## FASHION MERCHANDISING

### Certificate of Achievement

Required Courses				Units
Course				
Fashion Core Curriculum				(12)
Intro to Display & Visual Presentation	D&VP	180		(3)
Trend Forecasting	Fash	118		(1.5)
Evaluation of Apparel Quality	Fash	140		(1.5)
Applied Color/Design Theory	Fash	175		(4)
Image Consulting	Fash	176		(3)
Fash Merchandising Concepts	Fash	177		(3)
Fashion Internship	Fash	181		(4)
Spec Events Coordination	Fash	225		(3)
Human Relations/Supervision	Mgmt	115		(3)
<b>(Or)</b>				
Retail Store Management	Mktg	200		(3)
Professional Selling	Mktg	110		(3)
Retail Buying	Mktg	220		(3)
<b>Total:</b>				<b>(44)</b>
<b>Suggested electives:</b>				
Principles Financial Acct	Acct	101		(4)
Intro International Business	Bus	118		(3)
Business Math	Bus	125		(3)
Business Communication	Bus	139		(3)
Professional Communication	Bus/Mktg	239		(3)
Intro to Info Sys/Micro Appl	CIS	100		(3)
Small Business Ownership	Mgmt	240		(3)
Direct Mail/Marketing	Mktg	142		(1.5)
Interpersonal Communication	Spcom	100		(3)
<b>(Or)</b>				
Public Speaking	Spcom	110		(3)
Internship Academy	Intern	392AB		(1-4)

## INDUSTRIAL SEWING

The courses in this certificate provide short-term training in the areas of clothing construction and the use of high-speed industrial sewing equipment. The certificate can be completed in one to two semesters. The program offers a self-paced open entry, open exit lab that allows for enrollment throughout the semester.

**Employment possibilities include:**

- Apparel Construction
- Textile Product Assembly

### CERTIFICATE OF COMPLETION

Course	Required Courses	Units
Beg Clothing Techniques	Fash 100	(3)
Int Clothing Techniques* (3)	Fash 101AB	(6)
Industrial Sewing Techniques	Fash 102	(2)
Sewing Lab	Fash N050AD	(.5-2)
<b>Total:</b>		<b>(11.5-13)</b>

\*Course must be taken twice

**Suggested electives:**

Alterations	Fash 137	(2)
Internship Academy-Level 2	Intern 392AB	(1-4)

## COSTUME

—See Costume Careers



## FILM/VIDEO

The Film/Video program at OCC is designed to give the student two years of extensive theory and technical experience training in the basic skills required for employment in the film/video industry.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
<b>FALL</b>		
Hist & Appr of Cinema Video Workshop	Film 100	(3)
	Film 110	(3)
<b>SPRING</b>		
TV Production Basic Photography	Film 155	(3)
	Photo 120	(3)
<b>FALL</b>		
Digital Film/Video Editing Film Production	Film 194	(3)
	Film 240	(4)
<b>SPRING</b>		
Advanced TV Production Electronic Field Production	Film 255AC	(3)
	Film 265AD	(4)
<b>Subtotal:</b>		<b>(26)</b>

**Select at least ten (10) units from the following:**

Broadcast Journalism	Brct 105	(3)
Image Processing Digital Video	DMA&D 262AC	(4)
Scriptwriting	Engl 127AD	(3)
Film as Literature	Engl 148	(3)
Contemporary Films	Film 103	(3)
Great Directors of Cinema	Film 104	(3)
Home Video Mktg/Distribution	Film 112	(3)
Intro to Radio, TV & Film	Film 150	(3)
Film/Video Sound	Film 193	(3)
Special Projects	Film 260AB	(2)
Television Lab	Film 261AD	(2)
Adv Film/Video Editing	Film 264AB	(3)
Adv Film Production	Film 270AB	(4)
Theatre Directing	Thart 275AD	(3)

**(10)**

**Total: (36)**

*Note: Each required and elective course must be passed with a grade of "C" or better to qualify for the Certificate of Achievement.*

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## FITNESS SPECIALIST

The Orange Coast College Fitness Specialist program trains students for positions entry-level or higher in the booming fitness industry. Graduates are qualified to be fitness instructors, exercise testing technicians, weight training coaches, and personal fitness counselors.

Students in this program learn scientific principles of exercise and physical conditioning, techniques of leading exercise classes, and methods appropriate to establishing healthy behavior. The Fitness Specialist evaluates the physiological and psychological effects of physical activities and designs personalized exercise prescriptions.

The fitness industry, experiencing rapid growth, has a growing demand for trained instructors and exercise test technologists in health clubs, fitness studios, and sports medicine clinics. The employment outlook is excellent.

## HEALTH FITNESS INSTRUCTOR/PERSONAL TRAINER

This program provides students with theory necessary to be effective in the health fitness industry (health clubs, corporate fitness, etc.). Students in this program will learn scientific principles of exercise and physical conditioning, techniques for the measurement of human performance, and methods for establishing healthy nutritional patterns.

### CERTIFICATE OF ACHIEVEMENT

#### Required prerequisite:

Current First Aid/CPR Certification

#### Required Courses

Course			Units
Anatomy-Physiology	Biol	221	(4)
Fitness and Health	P E	134	(3)
Movement Analysis	P E	274	(3)
Sports Management	P E	278	(3)
Sports Medicine	P E	281	(3)
Fitness & Exercise Testing	P E	284	(3)
Strength Conditioning/Theory	P E	289	(3)
Internship Academy	Intern	392AB	(1)
<b>Subtotal:</b>			<b>(23)</b>

#### Select one (1) courses from the following:

Nutrition, Fitness & Perf	Hled	136	(3)
Fitness Programs	P E	107AD	(2)
Drugs & Sports	P E	138	(2)

**Total: (2-3)  
(25-26)**

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## FOOD SCIENCE

—See Culinology®

## FOOD SERVICE MANAGEMENT—COMMERCIAL

### (Restaurants and Hotels)

Students completing the following certificates are qualified to manage food service operations in commercial establishments.

Restaurant management is an attractive profession which has been described a number of ways by those who are active in it, including such accolades as glamorous, well-paying, creative, challenging, and filled with excitement. One employment estimate shows a need for more than 250,000 additional employees annually. The future of restaurant management holds promise for individuals willing to devote their talents to this lively career.

## RESTAURANT SUPERVISION

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>FALL</b>		
Quantity Foods Preparation	C A	150	(4)
Intro to Nutrition Concepts (2)	F N	140	
<b>(Or)</b>			(2-3)
Nutrition (3)	F N	170	
Intro to Hospitality Industry	FSM	100	(3)
Sanitation & Safety	FSM	160	(3)
Dining Room Service	FSM	190	(2)
	<b>SPRING</b>		
Food Production Management	FSM	151	(2)
Dining Room Management	FSM	210	(3)
FSM Math/Accounting	FSM	240	(4)
Supervision & Training Tech	FSM	260	(3)
Restaurant Management	FSM	285	(3)
<b>Total:</b>			<b>(29-30)</b>

## RESTAURANT

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

**Required prerequisite:**

Restaurant Supervision Certificate of Achievement

**Subtotal: (29-30)**

Required Courses			
Course			Units
<b>FALL</b>			
Intro to Info Sys & Appl	CIS	100	(3)
Menu Planning/Purchasing	FSM	250	(3)
Directed Practice*	FSM	286A	(2)
Hotel/Restaurant Law	Hotel	286	(3)
Introductory Psychology	Psych	100	(3)
<b>SPRING</b>			
Catering	FSM	284	(3)
Directed Practice*	FSM	286B	(2)
		<b>(19)</b>	
		<b>Total: (48-49)</b>	
<b>Suggested electives:</b>			
Beg Computer Keyboarding 1	COT	109	(1.5)
Emergency Medical Care	EMT	100	(3)
<b>(Or)</b>			
First Aid & CPR	Hled	112	(2)

\*Supervisory or management position approved by program coordinator.

## FAST FOOD SERVICES

The Fast Food certificate requirements have been carefully planned for those students interested in following a career in the booming segment of this food service industry. The fast food world is not only demanding but also filled with the excitement that comes from operating a thriving business. If you are interested in the kind of career that provides unlimited potential for advancement, then the Fast Food Services career is the one for you.

### CERTIFICATE OF COMPLETION

Required Courses			
Course			Units
Sanitation & Safety	FSM	160	(3)
FSM Math/Acct	FSM	240	(4)
Supervision & Training Tech	FSM	260	(3)
Restaurant Management	FSM	285	(3)
Directed Practice	FSM	286AB	(4)
		<b>Total: (17)</b>	

## CATERING

Students who complete the Catering certificate will be trained to operate a catering business, whether it be a business conducted on premises or off premises. Those enrolling in this program will learn about organization and management, menu pricing, selling, advertising and promotion, and preparing and serving food, as well as cost accountability, a most important factor in operating a catering service successfully. Students will be employable in the catering departments of hotels and restaurants and will be knowledgeable enough to reasonably decide about opening their own catering business. Opportunities for employment in this field are excellent.

### CERTIFICATE OF COMPLETION

Required Courses			
Course			Units
Pantry (2)	C A	149	
<b>(Or)</b>			
Quantity Foods Preparation (4)	C A	150	(2-4)
Garde Manger	C A	200	
<b>(Or)</b>			
Food Production Management	FSM	151	
Intro to Nutrition Concepts	F N	140	(2)
Sanitation & Safety	FSM	160	(3)
Menu Planning/Purchasing	FSM	250	(3)
Catering	FSM	284	(3)
		<b>Total: (15-17)</b>	
<b>Suggested electives:</b>			
Small Business Ownership	Bus	240	(3)
Principles of Baking 1	C A	124	(2)
FSM Math/Accounting	FSM	240	(4)
Supervision & Training Tech	FSM	260	(3)
Hospitality Sales & Marketing	Hotel	240	(3)

## FOOD SERVICE MANAGEMENT— INSTITUTIONAL

**(Corporations, Healthcare Facilities,  
Detention Facilities, Schools)**

Students completing the following certificates are qualified to manage food service operations in institutional settings.

## CHILD NUTRITION PROGRAM MANAGEMENT

**(School Food Service)**

This certificate prepares students for supervisory responsibilities in a school district at the school or unit level of management. Responsibilities include implementation and coordination of food services and employees to ensure high standards of food preparation, nutrition education, and student services. Students are eligible to join the American School Food Service Association at the Manager Certification Level, maintaining certification through continuing education of ten hours per year.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
<b>First Semester</b>			
Quantity Foods Preparation	C A	150	(4)
Nutrition	F N	170	(3)
Applied Nutrition	F N	171	(2)
Sanitation & Safety	FSM	160	(3)
Child Development	Hmdv	180	(3)
<b>Second Semester</b>			
Life Cycle Nutrition: Children	F N	145	(1)
Child Nutrition Program Mgmt	FSM	145	(2)
Food Production Management	FSM	151	(2)
Menu Planning/Purchasing	FSM	250	(3)
Supervision & Training Tech	FSM	260	(3)
Catering	FSM	284	(3)
<b>Total:</b>			<b>(29)</b>

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## DIETETIC SERVICE SUPERVISOR\*

Dietary Service Supervisors plan and supervise employees engaged in a variety of food service activities in a medical facility. Responsibilities include assisting the professional staff in auditing patient menus, visiting patients to discuss dietary problems, and coordinating work of food production personnel with other departments.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Quantity Foods Preparation	C A	150	(4)
Nutrition	F N	170	(3)
Food Production Management	FSM	151	(2)
Sanitation & Safety	FSM	160	(3)
Supervision & Training Tech	FSM	260	(3)
Health Care Field Experience	N C	175	(3)
Intro Med Nutrition Therapy	N C	180	(3)
<b>Total:</b>			<b>(21)</b>

*\*Upon successful completion, student meets California Department of Health Licensing Requirements for Dietetic Service Supervisor.*

## DIETETIC SERVICE MANAGER\*

Dietetic Service Managers work in hospitals, long-term care, schools, correctional facilities, and many other settings. Responsibilities may include directing and controlling the following: menu planning, food purchasing, food production and service, financial management, employee recruitment, training, and supervision, and (in some settings) nutritional assessment and clinical care. Students completing this certificate join the Dietetic Managers Association and take the National Certification exam.

### CERTIFICATE OF ACHIEVEMENT

Required prerequisite:			
Completion of all courses for Dietetic Service Supervisor Certificate of Achievement with a grade of "C" or better			
			<b>Subtotal:</b>
			<b>(21)</b>
Required Courses			
Course			Units
Patient Care	AI H	115	(2.5)
Careers in Dietetics/Food Sci	F N/N C	100	(1)
Applied Nutrition	F N	171	(2)
Food Service Math/Accounting	FSM	240	(4)
Menu Planning/Purchasing	FSM	250	(3)
Catering	FSM	284	(3)
Interpersonal Communication	Spcom	100	(3)
<b>Total:</b>			<b>(18.5)</b>
			<b>(39.5)</b>

*\*Upon successful completion, students meet Dietary Managers' Association criteria for certification and are eligible to take the National Certification Examination.*

## DIETETIC TECHNICIAN- MANAGEMENT HEALTH CARE\*

Completion of the Dietetic Service Supervisor and Dietetic Service Manager certificates, the following courses, and the Associate Degree program at Orange Coast College qualify the student to sit for the Dietetic Technician Registration exam and become a member of the American Dietetic Association.

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

**Required prerequisites: Completion of all courses for Dietetic Service Supervisor and Dietetic Service Manager Certificates of Achievement with a grade of "C" or better**

		<b>Subtotal:</b>	<b>(39.5)</b>
<b>Required Courses</b>			
<b>Course</b>			<b>Units</b>
Medical Terminology	Al H	111	(3)
Anatomy-Physiology	Biol	221	(4)
Intermediate Nutrition Care	N C	280	(2)
Supervised Practice 1	N C	281	(3)
Advanced Nutrition Care	N C	285	(2)
Supervised Practice 2	N C	286	(3)
Life Cycle Nutrition:Mother/Infant	F N	144	(1)
Life Cycle Nutrition: Children	F N	145	(1)
Life Cycle Nutrition: Later Years	F N	146	(1)
Restaurant Management	FSM	285	(3)
		<b>(23)</b>	
		<b>Total:</b>	<b>(62.5)</b>
<b>Suggested elective:</b>			
Introductory Sociology	Soc	180	(3)

*\*Upon successful completion of these courses (with grade of "C" or better) and the General Education Requirements, students will receive a Letter of Verification from the program director confirming that all requirements of the program have been met. Students will then be eligible for membership in the American Dietetic Association and for taking the National Registration Examination administered by the Commission on Dietetic Registration, The American Dietetic Association.*

*This program has been granted full accreditation status by the Commission on Accreditation/Approval for Dietetics Education of the American Dietetics Association, 120 S. Riverside Plaza, Ste. 2000, Chicago, IL 60606-6995, (800)877-1600.*

## HEALTH SCIENCES

-See

- CARDIOVASCULAR TECHNOLOGY
- DENTAL ASSISTING—REGISTERED
- DIAGNOSTIC MEDICAL SONOGRAPHY
- DIETETICS/FOOD AND NUTRITION/NUTRITION CARE
- ELECTROCARDIOGRAPHY TECHNICIAN
- EMERGENCY MEDICAL TECHNICIAN
- MEDICAL ASSISTING
- MEDICAL TRANSCRIPTION
- NEURODIAGNOSTIC TECHNOLOGY
- POLYSOMNOGRAPHY
- RADIOLOGIC TECHNOLOGY
- RESPIRATORY CARE
- SCHOOL HEALTH ASSISTANT
- SPEECH-LANGUAGE PATHOLOGY ASSISTANT

## HEATING AND AIR CONDITIONING— HVAC TECHNOLOGY

The Heating, Ventilation and Air Conditioning (HVAC) option prepares students for employment as heating, ventilating and air conditioning technicians. Students will be trained to install, service and maintain air conditioning/refrigeration equipment in buildings. The program provides a background for more advanced studies in the design and installation of computerized building automation systems.

Employment possibilities include:

**Heating, Air Conditioning Technician  
Refrigeration Mechanic  
Stationary Engineer**

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses\*

Course			Units
Refrigeration Principles (3)	HVAC	100	(3)
<b>(Or)</b>			
Air Conditioning Principles (3)	HVAC	101	(3)
Air Conditioning Service	HVAC	103	
Air Conditioning—Air Balance	HVAC	104	(3)
Air Conditioning Controls	HVAC	105	
Pneumatic Controls	HVAC	110	(3)
Building Automation/EMS	HVAC	140	

**Subtotal: (18)**

#### Select nine (9) units from the following:

Computer Use in Technology	Comp HT	100	(3)
Centrifugal Refrigeration	HVAC	106	(3)
Steam Plant Operatn/Maintance	HVAC	107	(3)
Applied Electricity	HVAC	120	(3)

**Total: (9)  
(27)**

*\*A math competency level equivalent to Tech 040 is strongly recommended or satisfactory score on math competency examination.*

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## HOTEL MANAGEMENT

The Hotel Management program at Orange Coast College is designed for employment and/or career advancement within the hospitality industry. Whether an individual is a novice or currently employed in the hotel industry, this program strengthens their opportunity for success within the fastest growing industry in southern California.

Career opportunities abound as multimillion dollar hotels and resorts continue to be built across the United States requiring trained individuals to fill the multitude of varied and existing positions.

Students may choose from individual courses or six areas of specialization certificates. Students are introduced to the diversified knowledge necessary and expertise preferred to increase their potential for successful employment within the modern hospitality industry.

In addition to the certificates, students are encouraged to complete the requirements for an Associate in Arts degree. Graduation requirements for an OCC Associate degree can be found in the college catalog under Graduation Requirements.

## CORE CURRICULUM

#### Required Courses

Course			Units
Sanitation & Safety	FSM	160	(3)
Intro to Hospitality	Hotel	100	(3)
Internship 1	Hotel	116	(2)
Q.A. & Guest Relations	Hotel	180	(3)

**Subtotal: (11)**

## FINANCIAL MANAGEMENT SPECIALIST

Provides the technical and decision making requisites necessary for advancement and/or employment in an economic role within the hospitality industry.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

Course			Units
Hotel Core Curriculum			(11)
Food Service Math/Acct	FSM	240	(4)
Accounting & Night Audit	Hotel	115	(3)
Internship 2	Hotel	279AD	(3)
Management Skills Bldr	Hotel	281	(3)
Hotel Operations	Hotel	285	(3)

**Total: (27)**

## GUEST SERVICE SPECIALIST

Develops essential skills necessary for advancement or employment in a service sector role within the hospitality industry.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			Units
Course			
Hotel Core Curriculum			(11)
Front Office Operations	Hotel	110	(3)
Hospitality Sales/Marketing	Hotel	240	(3)
Meeting/Event Marketing & Sales	Hotel	270	(1.5)
Internship 2	Hotel	279AD	(3)
Supervisory Skills Bldr	Hotel	282	(3)
<b>Total:</b>			<b>(24.5)</b>

## HOUSEKEEPING AND MAINTENANCE SPECIALIST

Develops essential skills necessary for advancement or employment within the house-keeping and maintenance departments.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			Units
Course			
Hotel Core Curriculum			(11)
Housekeeping & Rooms Mgmt	Hotel	120	(3)
Internship 2	Hotel	279AD	(3)
Supervisory Skills Bldr	Hotel	282	(3)
<b>Total:</b>			<b>(20)</b>

## HUMAN RESOURCE SPECIALIST

Develops insight, decision making tools, and organizational understanding for advancement or employment in a human resource role within the hospitality industry.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			Units
Course			
Hotel Core Curriculum			(11)
Supervision & Training Tech Management Skills Bldr	Hotel	260	(3)
Management Skills Bldr	Hotel	281	(3)
Supervisory Skills Bldr	Hotel	282	(3)
Hospitality Law	Hotel	286	(3)
Human Resource Management	Hotel	288	(3)
Internship 2	Hotel	279AD	(3)
<b>Total:</b>			<b>(29)</b>

## ROOM OPERATIONS SPECIALIST

These courses have been recommended by industry to provide essential preparation to supervise and manage within operational areas in the rooms division. Courses have been organized to provide understanding of techniques and knowledge necessary in developing effective leadership and decision making skills for successful communication among all departments and contributing to positive guest experiences.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			Units
Course			
Hotel Core Curriculum			(11)
Front Office Operations	Hotel	110	(3)
Hotel Accounting	Hotel	115	(3)
Housekeeping & Rooms Mgmt	Hotel	120	(3)
Supervisory Skills Bldr	Hotel	282	(3)
Hospitality Law	Hotel	286	(3)
Human Resource Management	Hotel	288	(3)
Internship 2	Hotel	279AD	(3)
<b>Total:</b>			<b>(32)</b>

### ASSOCIATE DEGREES

Students are encouraged to complete the Associate Degree. Complete the Hotel Room Operations Specialists Certificate of Achievement and either Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## SALES, MARKETING, AND EVENTS SPECIALIST

Develops essential skills necessary for advancement or employment in a sales and marketing or event and meeting management role within the hospitality meeting.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			Units
Course			
Hotel Core Curriculum			(11)
Hospitality Sales & Marketing	Hotel	240	(3)
Principles Event/Meeting Mgmt	Hotel	265	(1.5)
Organize/Manage Events & Meetings	Hotel	266	(1.5)
Managing Business Risks	Hotel	267	(1.5)
Meeting/Event Marketing & Sales	Hotel	270	(1.5)
Hotel Operations	Hotel	285	(3)
Internship 2	Hotel	279AD	(3)
<b>Total:</b>			<b>(26)</b>

## MEETING AND EVENT MANAGEMENT

This certificate provides the necessary skills and knowledge to obtain entry-level employment, to upgrade skills for promotional opportunities, or to prepare for a career change, as well as being beneficial for those in related fields, such as lighting, sound, audio-visual, decor, catering, and entertainment.

The required courses offer a solid foundation in meeting and event management and may also be offered via distance learning to accommodate busy schedules. Specialization courses are provided in cooperation with industry partners ensuring that students are prepared for the changes occurring within this complex and competitive industry.

### CERTIFICATE OF COMPLETION

<b>Required Courses</b>			
<b>Course</b>			<b>Units</b>
Principles Event/Meeting Mgmt	Hotel	265	(1.5)
Organize/Manage Events & Meetings	Hotel	266	(1.5)
Managing Business Risks	Hotel	267	(1.5)
Meeting/Event Marketing & Sales	Hotel	270	(1.5)
		<b>Subtotal:</b>	<b>(6)</b>
<b>Select three specialization courses (3 units) from the following:</b>			
Corporate Meetings & Events	Hotel	271	(1)
Meeting & Conference Practices	Hotel	272	(1)
Sport Event Management	Hotel	273	(1)
Establish & Operate Event Bus	Hotel	274	(1)
Event Fund-Raising/Sponsor	Hotel	275	(1)
Expo & Trade Show Management	Hotel	276	(1)
Wedding Planning as Business	Hotel	277	(1)
Catering Design/Management	Hotel	278	(1)
		<b>(3)</b>	
<b>Take this course after completion of nine (9) units:</b>			
Meeting & Event Mgmt Practicum	Hotel	280AD	(1)
		<b>Total:</b>	<b>(10)</b>

## INTERIOR DESIGN

The Regional Interior Design program at Orange Coast College is a multi-level program offering a certificate in Interior Merchandising (Level 1), an Associate in Science degree (Level 2), and a Professional (Level 3). Students completing Level 1 are employed in retail furnishings and merchandising. Level 2 Interior Design Assistants assist interior design practitioners through illustration, selection and specification of furnishings and materials, as well as drafting and merchandising. Level 3 prepares students to practice as full professional interior designers. Level 2 students must complete the A.S. Degree, and Level 3 students must complete the requirements for a bachelor's degree. This program replaces all previous interior design programs.

Developed by educators and professional interior designers, this program offers an interdisciplinary approach to fundamental design, space planning, design analysis, and materials selection and specifications relating to residential and commercial spaces.

Orange Coast College participates in a Regional Interior Design Consortium with Saddleback College, Fullerton College, and Mt. San Antonio College. All required interior design courses are articulated with these schools, and students may take interior design courses at any of the colleges in the consortium.

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

The Level 2 Interior Design Assistant requires an Associate in Science Degree in addition to completion of required units listed below.

Level 3 Interior Design Professional requires a student to complete the requirements for a bachelor's degree.

#### Required Courses

#### Level 1 - Interior Merchandising Certificate of Achievement

<b>Course</b>			<b>Units</b>
<b>First Semester</b>			
Arch Drawing&Design Visual 1	Arch	105	(2)
Fundamentals of Interior Design	I D	100	(3)
Interior Design Studio 1	I D	105	(2)
Interior Design Careers	I D	120	(2)
<b>Second Semester</b>			
Basic Comp Aided Design/Drafting	Draft	150AB	(4)
Interior Materials & Products	I D	150	(4)
Applied Color/Design Theory	I D	175	(4)
Professional Selling	Mktg	110	(3)
		<b>Subtotal:</b>	<b>(24)</b>

#### Level 2 - Interior Design Assistant Associate in Science Degree

<b>Third Semester</b>			
Level I Certificate			(24)
Space Planning	I D	170	(3)
Hist Arch/Furnishings 1	I D	180	(3)
Interior Illustration	I D	200	(2)
Fundamentals of Lighting	I D	210	(3)

**CONTINUED NEXT PAGE**

**Fourth Semester**

Arch Drafting/Constr Documents	Arch	180	(4)
Hist Arch/Furnishings 2	I D	190	(3)
Interior Design Studio 2	I D	215	(2)
Business and Professional Practice	I D	230	(3)
Interior Design Internship	I D	240	(4)

**Subtotal:** **(51)**

**Level 3 - Interior Design - Professional Level**

**Certificate of Achievement\***

**Fifth Semester**

Level I & II Certificate			(51)
Adv Comp Aided Dsgn/Draft-Arch	Draft	158	(4)
Codes and Specifications	I D	250	(2)
Rendering & Rapid Visualization	I D	260	(2)
Interior Design Studio 3	I D	265	(2)

**Sixth Semester**

Small Business Ownership	Bus	240	(3)
Interior Design Studio 4	I D	275	(2)

**Subtotal:** **(15)**

**Total:** **(66)**

**\*Level 3 students must complete the requirements for a bachelor's degree.**

**Suggested electives:**

Color & Design 2-D	Art	110	(3)
Color & Design 3-D	Art	111	(3)
Freehand Drawing	Art	120	(3)
Perspective	Art	125	(3)
Exhibition Design (Gallery)	Art	145	(3)
Intro Display/Visual Presentation	D&VP	180	(3)

**LEADERSHIP STUDIES**

The goal of this program is to enhance individual and organizational effectiveness. Students will develop personal leadership skills, study ethical dimensions of leadership, understand how leadership affects people, organizations, and society, and articulate and apply their own philosophy of leadership in their careers and lives.

**CERTIFICATE OF COMPLETION**

Course	Required Courses		Units
Personal Leadership	Lead	180	3
Organizational Leadership	Lead	200	3
Interpersonal Communication	Spcom	100	3
<b>Total:</b>			<b>(9)</b>

## MACHINE TECHNOLOGY

OCC's Machine Technology program is designed to train students for entry-level positions as machine operators. Additionally, both beginning students and working machinists can build on their skill and knowledge by completing the requirements for one of the advanced certificates.

The Machine Technology program is divided into four areas: Machinist, Computer Numerical Control (CNC) Operator, CNC Programmer, and Tool Maker. All four programs follow sequential plans which spin off from the core machinist program. After completing the machinist program in two semesters, the student can take the classes required for one of the more advanced certificates. The student who completes the machinist program also satisfies the major requirements for the Associate in Science degree.

## MACHINIST

The Machinist certificate program trains students for positions as entry-level operators, which often are the first manufacturing jobs for industrial employees. This certificate program provides the skill and knowledge necessary for job candidates to become successful wage earners. This program also comprises the core courses for the more advanced certificates.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	<b>FALL</b>		
Intro to Machine Shop	Mach	100AB	(3)
Lathe	Mach	105	(5)
Blueprint Reading	Mach	120	(3)
Computations for Machinists	Mach	121	(3)
	<b>SPRING</b>		
Milling Machine	Mach	110	(5)
Production Machining Tech	Mach	115	(2.5)
Intro to Numerical Control & Manual Programming	Mach	130	(4)
	<b>Total:</b>		<b>(25.5)</b>

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## CNC MACHINE OPERATOR

The CNC Machine Operator certificate enhances the skills of students who have earned the Machinist certificate by providing that student with CNC machine operating skills and manual programming skills. The courses required for earning this certificate are designed to make the machine operator capable of setting up and manually programming a CNC machine tool. The CNC Machine Operator Professional Upgrade Certificate is specifically for the returning student with on-the-job machining experience.

### CERTIFICATE OF ACHIEVEMENT

Required prerequisite:			
Machine Technology—Machinist Certificate of Achievement			<b>Subtotal: (25.5)</b>
Course	Required Courses		Units
	<b>FALL</b>		
Numerical Control Machine Operation*	Mach	125	(3)
	<b>SPRING</b>		
Adv CNC Mach Operation	Mach	126	(2)
	<b>Total:</b>		<b>(5)</b>
			<b>(30.5)</b>

\*Machine 123 & 124 may be substituted for Machine 125.

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## CNC MACHINE PROGRAMMER

The CNC Machine Programmer certificate includes courses designed to upgrade the skills and knowledge of the machinist or the CNC machine operator to the level of the CNC machine programmer. If you are a machinist and have minimal experience with CNC machines or machine language programming, you will first want to complete the CNC Machine Operator Professional Upgrade Certificate. If you have both machining experience and CNC experience, the software used for the Machine Technology 133AB and 134AB courses provides excellent experiences in computer-assisted CNC programming. All of our programming courses require the use of a personal-type computer. If you have no computer experience, we strongly suggest you enroll in a basic computer use type course first (Computer & High Technology 100 or Computer Information Systems 100).

### CERTIFICATE OF ACHIEVEMENT

#### Required prerequisite:

Machine Technology—Machinist Certificate of Achievement

**Subtotal: (25.5)**

Course	Required Courses		Units
	<b>FALL</b>		
Numerical Control Machine Operation*	Mach	125	(3)
	<b>SPRING</b>		
Adv CNC Machine Operator	Mach	126	(2)
CNC Programming-Mastercam	Mach	133AB	(3)
	<b>SUMMER</b>		
Mastercam Solids	Mach	142AB	(2)
	<b>FALL</b>		
Adv CNC Programming-Mastercam	Mach	134AB	(3)
	<b>INTERSESSION</b>		
Mastercam Lathe	Mach	141AB	(1.5)
			<b>(14.5)</b>
	<b>Total:</b>		<b>(40)</b>

*Note: The A and B courses cannot be mixed. They are totally different software packages and must be taken as a sequential pattern. Example: Machine 133A must be followed by Machine 134A, not 134B.*

*\*Machine 123 & 124 may be substituted for Machine 125.*

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## TOOLING

Earning the Tooling certificate upgrades the skills of the machinist to the point required for profitable employment as an entry-level tool maker, a die maker, or a mold maker. As well as other subjects that must be learned by the beginning tool maker, the Tooling certificate program includes courses in metallurgy, tool and cutter grinding, and welding tooling.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

Course			Units
Intro to Machine Shop	Mach	100AB	(3)
Lathe	Mach	105	(5)
Milling Machine	Mach	110	(5)
Production Machining Tech	Mach	115	(2.5)
Blueprint Reading	Mach	120	(3)
Computations for Machinists	Mach	121	(3)
Numerical Control Machine Operation	Mach	125	(3)
Intro to Numerical Control & Manual Programming	Mach	130	(4)
Tool & Cutter Grinding	Mach	150	(2.5)
Dimensioning & Tolerancing	Mach	175	(3)
Elementary Metallurgy	Mach	190	(2)
Tooling	Mach	200	(2.5)
Arc & Oxy-acetylene Welding	Weld	100	(3)
	<b>Total:</b>		<b>(41.5)</b>

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MACHINE TECHNOLOGY

### Professional Upgrade Certificates

#### CNC Operator

This Professional Upgrade Certificate is designed for students who are already machinists. Before starting on this plan you should be able to set up and operate both conventional lathes and mills. You should be able to read blueprints and use all common machine shop measuring tools. If you have a deficiency in these areas, please refer back to the basic machining courses found in the Machinist certificate.

#### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Numerical Control Machine Operation	FALL	Mach	125 (3)
Intro to Numerical Control & Manual Programming	SPRING	Mach	130 (4)
Adv CNC Mach Operation		Mach	126 (2)
<b>Total:</b>			<b>(9)</b>

#### CNC Programmer

This Professional Upgrade Certificate is designed to upgrade the skills and knowledge of the machinist or the CNC machine operator to the level of the CNC machine programmer. If you are a machinist and have minimal experience with CNC machines or machine language programming, you will first want to complete the CNC operator upgrade certificate. If you have both machining experience and CNC experience, the software used for the Machine 133AB and 134AB courses provide excellent experiences in computer-assisted CNC programming. All of our programming courses require the use of a personal computer. If you have no computer experience, we strongly suggest you enroll in a basic computer use course first (Computer & High Technology 100 or Computer Information Systems 100).

Note: Two unit contract education course requirements must be designed in cooperation with the student and the instructor, or the student, instructor, and employer. This course will require the student to complete a project from beginning to end, to include all necessary paperwork, fixturing, programming, and machining of the final part, or the student may take Machine Technology 126, Advanced CNC Machine Operation.

#### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
CNC Programming-Mastercam		Mach	133AB (3)
Adv CNC Programming-Mastercam		Mach	134AB (3)
Contract Education	(Or)		(2)
Adv CNC Machine Operation		Mach	126 (2)
Mastercam Lathe		Mach	141AB (1.5)
Mastercam Solids		Mach	142AB (2)
<b>Total:</b>			<b>(11.5)</b>

Note: The A and B courses cannot be mixed. They are totally different software packages and must be taken as a sequential pattern. Example: Machine 133A must be followed by Machine 134A not 134B

## MANAGEMENT

### MANAGEMENT AND LEADERSHIP STUDIES

The Management and Leadership Studies certificate program is designed to build and/or upgrade skills in leading and managing people while enhancing individual and organizational effectiveness within the workplace. Courses emphasize leading, organizing, planning, communicating, training, and controlling.

#### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Intro to Business	FALL	Bus	100 (3)
	(Or)		
Honors Intro to Bus		Bus	100H (3)
		CIS	100 (3)
Intro to Info Sys & Appl		Mgmt	100 (3)
		Spcom	100 (3)
Interpersonal Communication	SPRING		
Business Communication		Bus	139 (3)
		Lead	180 (3)
Personal Leadership		Mgmt	115 (3)
Human Relations & Supervsn	FALL		
		Lead	200 (3)
Organizational Leadership		Mktg	110 (3)
	(Or)		
Professional Selling		Spcom	110 (3)
		Mgmt/Bus	239 (3)
Public Speaking	SPRING		
Professional Communication		Bus	110 (3)
		Intern	392AB (3)
Business Law	<b>Subtotal:</b>		<b>(36)</b>
Internship Academy	<b>Select three (3) units from the following:</b>		
Financial Accounting		Acct	101 (4)
		Acct	102 (4)
Managerial Accounting		Bus	120 (3)
		Bus	240 (3)
Personal Financial Success		CIS	108AB (3)
		Mktg	100 (3)
Small Business Ownership		Mktg	110 (3)
		Phil	120 (3)
Electronic Portfolios (1.5)*		Spcom	110 (3)
Intro to Marketing			
Professional Selling			
Ethics			
Public Speaking			
<b>Total:</b>			<b>(39)</b>

\*Course must be taken twice.

#### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## RETAIL

This program is approved by the Western Association of Food Chains and persons completing the prescribed courses are eligible to receive both the OCC Certificate of Achievement and the WAFC Retail Management Certificate.

### CERTIFICATE OF ACHIEVEMENT

Required Courses			Units
Course			
Accounting-Small Business (3)	Acct	100	
<b>(Or)</b>			(3-4)
Financial Accounting (4)	Acct	101	
Business Math	Bus	125	(3)
Business Communication	Bus	139	(3)
Professional Communication	Bus/Mgmt	239	(3)
Intro to Info Sys & Appl	CIS	100	(3)
Organizational Leadership	Lead	200	(3)
Applied Management	Mgmt	100	(3)
Human Relations & Supervsn	Mgmt	115	(3)
Intro to Marketing	Mktg	100	(3)
Retail Store Management	Mktg	200	(3)
		<b>Total:</b>	<b>(30-31)</b>
<b>Suggested electives:</b>			
Managerial Accounting	Acct	102	(4)
Business Law	Bus	110	(3)
Business English	Bus	138	(3)
Small Business Ownership	Bus	240	(3)
Professional Selling	Mktg	110	(3)
Retail Buying	Mktg	220	(3)

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MANAGEMENT INSTITUTE

### CERTIFICATE OF COMPLETION

These selected courses are designed for students who desire to sharpen their managerial skills. Completion of all three courses will provide the basic skills necessary to succeed in any managerial position.

*A grade of "C" or better is required in all courses and all courses must be completed at Orange Coast College.*

Required Courses			Units
Course			
Applied Management	Mgmt	100	(3)
Human Relations & Supervsn	Mgmt	115	(3)
Professional Communication	Bus/Mgmt	239	(3)
		<b>Total:</b>	<b>(9)</b>

The Marketing certificate programs are designed to train those individuals whose career paths involve the creative techniques of both oral and written sales presentations, advertising, and marketing. Courses emphasize the tools used by marketers, the environmental forces affecting the marketing process, sales communication skills, the major components of modern advertising and promotion, marketing research, and advertising planning and strategy. All courses must be completed with a grade of "C" or better.

## MARKETING

The Marketing certificate programs are designed to train those individuals whose career paths involve the creative techniques of both oral and written sales presentations, advertising and marketing. Courses emphasize the tools used by marketers, the environmental forces affecting the marketing process, sales communication skills, the major components of modern advertising and promotion, marketing research and advertising planning and strategy. All courses must be completed with a grade of "C" or better.

### CERTIFICATE OF ACHIEVEMENT

## Core Curriculum

Required Courses			Units
Course			
Intro to Business	Bus	100	(3)
<b>(Or)</b>			
Honors Intro to Business	Bus	100H	
Professional Communication	Bus/Mgmt	239	(3)
Intro to Marketing	Mktg	100	(3)
Professional Selling	Mktg	110	(3)
Principles of Advertising	Mktg	130	(3)
International Marketing	Mktg	150	(3)
<b>Subtotal:</b>			<b>18</b>

Students must complete core curriculum plus nine (9) units from the following list of courses in specialized areas. All courses need to be taken from the same area of specialization.

## General Marketing

Course			Units
Business Math	Bus	125	(3)
Business English	Bus	138	(3)
Public Relations	Bus	140	(3)
Mass Communications	MComm	100	(3)
Direct Mail & Marketing	Mktg	142	(1.5)
			<b>(9)</b>

## Advertising

Course			Units
Color & Design 2-D	Art	110	(3)
Freehand Drawing	Art	120	(3)
Public Relations	Bus	140	(3)
Graphic Design	DMA&D	182AC	(4)
Intro to Radio, TV & Film	Film	150	(3)
			<b>(9)</b>

## Sales

Course			Units
Business Math	Bus	125	(3)
Business English	Bus	138	(3)
Sales Management	Mktg	115	(3)
Professional Selling, Adv	Mktg	210	(3)
Interpersonal Communication	Spcom	100	(3)
Intrapersonal Communication	Spcom	105	(3)
Public Speaking	Spcom	110	(3)
			<b>(9)</b>
<b>Total:</b>			<b>(27)</b>

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## INTERNATIONAL BUSINESS

### CERTIFICATE OF ACHIEVEMENT

Required Courses			Units
Course			
Intro International Business	Bus	118	(3)
Applied International Business	Bus	119	(3)
Introduction to Marketing	Mktg	100	(3)
Professional Selling	Mktg	110	(3)
International Marketing	Mktg	150	(3)
Export/Import Procedures	Mktg	152	(3)
<b>Subtotal:</b>			<b>(18)</b>

### Select three (3) units from the following:

Intro to Business	Bus	100	(3)
<b>(Or)</b>			
Honors Intro to Business	Bus	100H	
International Business Law	Bus	117	(3)
Business Math	Bus	125	(3)
Professional Communication	Bus/Mgmt	239	(3)
Economic Geography	Geog	160	(3)
			<b>(3)</b>

**Total: (21)**

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MARKETING

A grade of "C" or better is required in all courses and all courses must be taken at Orange Coast College.

### Advertising

#### CERTIFICATE OF COMPLETION

Course	Required Courses	Units
Principles of Advertising Graphic Design (4) <b>(Or)</b>	Mktg 130	(3)
	DMA&D 182AC	(3-4)
Freehand Drawing (3) Mass Communications <b>(Or)</b>	Art 120	
	MComm 100	(3)
Intro to Radio, TV & Film	Film 150	
<b>Total:</b>		<b>(9-10)</b>

### Entry Level Marketing

A grade of "C" or better is required in all courses and all courses must be taken at Orange Coast College.

#### CERTIFICATE OF COMPLETION

Course	Required Courses	Units
Introduction to Marketing Professional Selling Principles of Advertising	Mktg 100	(3)
	Mktg 110	(3)
	Mktg 130	(3)
<b>Total:</b>		<b>(9)</b>

### International Business

A grade of "C" or better is required in all courses and all courses must be taken at Orange Coast College.

#### CERTIFICATE OF COMPLETION

Course	Required Courses	Units
Intro International Business Intro to Marketing Professional Selling International Marketing	Bus 118	(3)
	Mktg 100	(3)
	Mktg 110	(3)
	Mktg 150	(3)
<b>Total:</b>		<b>(12)</b>

## Sales

A grade of "C" or better is required in all courses and all courses must be taken at Orange coast College.

#### CERTIFICATE OF COMPLETION

Course	Required Courses	Units
Professional Communication Professional Selling Interpersonal Communication <b>(Or)</b>	Bus/Mgmt 239	(3)
	Mktg 110	(3)
	Spcom 100	(3)
Public Speaking	Spcom 110	
<b>Total:</b>		<b>(9)</b>



**MEDICAL ASSISTING**

**CMA ELIGIBLE PROGRAM**

The Medical Assisting program includes specific business and medical courses that prepare students for employment as clinical or administrative assistants in medical offices, clinics, hospitals, or in related medical and business fields. The coursework can be completed in three or four semesters, and includes on-the-job experience in a medical office or a clinic.

The Orange Coast College Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Curriculum Review Board of the American Association of the Medical Assistants' Endowment (AAMAE). Address: CAAHEP, 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208, telephone (312) 553-9355. Such accreditation permits graduates of this program to take the National Certified Medical Assistant examination immediately after they graduate.

The medical assisting profession is highly diversified, and the work is challenging and personally rewarding. Employment opportunities are excellent in the expanding health care field.

**CERTIFICATE OF ACHIEVEMENT**

**Program recommended preparation:**

Intro to Info Sys & Appl	CIS	100	(3)
--------------------------	-----	-----	-----

**Required Courses**

Course			Units
Anatomy-Physiology*	Biol	221	(4)
Introductory Psychology*	Psych	100	(3)
<b>FALL</b>			
Medical Terminology	AI H	111	(3)
Patient Care	AI H	115	(2.5)
Medical Bookkeeping	M A/Acct	115	(4)
Intro Med Asst/Transcription	M A	175	(3)
Medical Insurance Billing	M A	185	(3)
<b>SPRING</b>			
Human Disease	AI H	120	(2)
Clinical Lab Procedures	M A	135	(2)
Admin M A Procedures	M A	180	(2)
Administrative Experience	M A	186	(2)
Medications/Injections	M A	286	(1)
Physical/Specialty Exams	M A	287	(1.5)
Sterile Tech/Minor Surgery	M A	288	(1)
Specialty Procedures	M A	289	(1)
<b>SUMMER</b>			
Clinical Experience	M A	281	(2)

**Total: (37-40)**

\*These two required courses must be taken prior to the awarding of the Certificate of Achievement.

**CONTINUED NEXT COLUMN**

**Suggested electives:**

Applied Pharmacology	AI H	130	(2)
Emergency Medical Care	EMT	100	(3)
Ethics	Phil	120	(3)
Medical Transcription Certificate			

Students are required to obtain a grade of "C" or better in all required courses.

NOTE: Students having completed prior course requirements and seeking advanced status in the program should meet on an individual basis with the Medical Assisting program coordinator.

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

**ADMINISTRATIVE**

**CERTIFICATE OF COMPLETION**

**Program recommended preparation:**

Intro to Info Sys & Appl	CIS	100	(3)
--------------------------	-----	-----	-----

**Required Courses**

Course			Units
<b>FALL</b>			
Medical Terminology	AI H	111	(3)
Medical Bookkeeping	M A/Acct	115	(4)
Intro Med Asst/Transcription	M A	175	(3)
Medical Insurance Billing	M A	185	(3)
<b>SPRING</b>			
Admin M A Procedures	M A	180	(2)
Administrative Experience	M A	186	(2)
<b>Total:</b>			<b>(17)</b>

**Suggested electives:**

Human Diseases	AI H	120	(2)
Applied Pharmacology	AI H	130	(2)
Anatomy-Physiology	Biol	221	(4)
Emergency Medical Care	EMT	100	(3)
Ethics	Phil	120	(3)
Introductory Psychology	Psych	100	(3)

Students are required to obtain a grade of "C" or better in all required courses.

## CLINICAL

### CERTIFICATE OF ACHIEVEMENT

**Program recommended preparation:**

Intro to Info Sys & Appl	CIS	100	(3)
--------------------------	-----	-----	-----

**Required Courses**

Course			Units
<b>FALL</b>			
Medical Terminology	AI H	111	(3)
Patient Care	AI H	115	(2.5)
Intro Med Asst/Transcription	M A	175	(3)
<b>SPRING</b>			
Human Diseases	AI H	120	(2)
Clinical Lab Procedures	M A	135	(2)
Medications/Injections	M A	286	(1)
Physical/Specialty Exams	M A	287	(1.5)
Sterile Tech/Minor Surgery	M A	288	(1)
Specialty Procedures	M A	289	(1)
<b>SUMMER</b>			
Clinical Experience	M A	281	(2)
		<b>Total:</b>	<b>(19-22)</b>
<b>Suggested electives:</b>			
Applied Pharmacology	AI H	130	(2)
Anatomy-Physiology	Biol	221	(4)
Emergency Medical Care	EMT	100	(3)
Ethics	Phil	120	(3)
Introductory Psychology	Psych	100	(3)

Students are required to obtain a grade of "C" or better in all required courses.

## MEDICAL INSURANCE

The Medical Insurance Certificate prepares the student for employment as a medical insurance biller with job opportunities in medical offices, clinics, or hospitals.

### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Medical Terminology	AI H	111	(3)
Medical Bookkeeping	M A/Acct	115	(4)
Medical Insurance Billing	M A	185	(3)
		<b>Total:</b>	<b>(10)</b>

Students are required to obtain a grade of "C" or better in all required courses.

## MEDICAL TRANSCRIPTION

This program provides instruction and experience in medical transcribing procedures to train the medical transcriptionist who is a health professional responsible for typing medical letters, charts, and reports from tapes dictated by physicians.

Medical transcriptionists have the option of working in medical offices, clinics, or hospitals, or to be self-employed. Their work is interesting and challenging, and it has excellent income potential, which includes encouraging tax benefits if the transcriptionist is self-employed.

### CERTIFICATE OF ACHIEVEMENT

**Program recommended preparation:**

Intro to Info Sys & Appl	CIS	100	(3)
--------------------------	-----	-----	-----

**Required Courses**

Course			Units
<b>FALL</b>			
Medical Terminology	AI H	111	(3)
Business English	Bus	138	(3)
Intro Med Asst/Transcription	M A	175	(3)
Beg Medical Transcription	Med T	190	(3)
<b>SPRING</b>			
Human Disease	AI H	120	(2)
Anatomy-Physiology	Biol	221	(4)
Adv Medical Transcription	Med T	195	(2)

**Total: (20-23)**

**Suggested electives:**

Medical Assisting-Administrative Certificate of Achievement			(19.5)
Medical Insurance Certificate of Completion			(10)
Small Business Ownership	Bus	240	(3)
Ethics	Phil	120	(3)

Students are required to obtain a grade of "C" or better in all required courses.

**MUSIC**

Because Orange County is close to the heart of the television, movie, and recording industries, OCC answers a real need to train performing musicians and sound technicians, as well as composers, teachers, and music-store owners and salespeople.

Our music industry programs are designed to give the serious music student the theory, applied training, and performing experience needed for success in the field they choose. Traditional music courses are integrated with music-industry courses to provide comprehensive programs.

To increase their chances of enjoying long and satisfying careers in a highly competitive industry, we encourage our students to become proficient in a wide variety of musical styles, and to be aware of the many career alternatives open to them.

**BUSINESS EMPLOYEE**

This program will prepare students for employment in music stores, record shops, and other commercial music activities. Many opportunities in the business of music are available to students with a broad general knowledge of how this segment of the music industry functions in addition to traditional musical skills.

**CERTIFICATE OF ACHIEVEMENT**

Course	Required Courses		Units
<b>First Semester</b>			
Piano 1	Music	141	(2)
Voice 1	Music	145	(1)
Music Industry Studies	Music	155	(3)
Music in America	Music	170	(3)
<b>Second Semester</b>			
Basic Guitar	Music	116	(2)
Harmony & Sightsinging 1	Music	180	(5)
Recording Techniques	Music	261AB	(2)
<b>Third Semester</b>			
Professional Selling	Mktg	110	(3)
Computers in Music	Music	102AD	(3)
Intro Sound Reinforcement	Music	236AB	(3)
<b>Total:</b>			<b>(27)</b>

**Suggested electives:**

Acct for Small Business	Acct	100	(3)
Small Business Ownership	Bus	240	(3)
Retailing	Mktg	200	(3)
Beginning Instruments	Music	140AB	(2)
Piano 2	Music	142	(2)
Voice 2	Music	146	(1)
Classical Guitar 1	Music	148	(2)
Studio Guitar 1	Music	151	(1.5)
Piano 3	Music	241	(2)
Piano 4	Music	242	(2)

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

**COMPOSER/  
ORCHESTRATOR/COPYIST**

This program is designed to give the composer or songwriter a concentrated theoretical background in traditional and commercial music. Numerous opportunities exist for the performance of original musical compositions.

**CERTIFICATE OF ACHIEVEMENT**

Course	Required Courses		Units
<b>First Semester</b>			
Ear Training	Music	104AB	(3)
Piano 1	Music	141	(2)
Harmony & Sightsinging 1	Music	180	(5)
Music Performing Group*			(2)
<b>Second Semester</b>			
Piano 2	Music	142	(2)
Harmony & Sightsinging 2	Music	185	(5)
Applied Music	Music	290AD	(2-4)
Music Performing Group*			(2)
<b>Third Semester</b>			
Sophomore Recital	Music	240	(.5)
Harmony & Sightsinging 3	Music	280	(5)
Jazz/Rock Theory	Music	287AB	(3)
Applied Music	Music	290AD	(2-4)
Music Performing Group*			(2)
<b>Total:</b>			<b>(35.5-39.5)</b>

*\*Music students in this major must participate in at least one major performing group per semester. Students should select a performing group that fits their performance specialty or interest. Vocalists should choose Music 120AD. Instrumentalists should choose from Music 127AD, 132AD, 133AD, 150AB, 230AD, 233AD, 234AD. Guitarists should choose Music 129AD.*

**Suggested electives:**

Computers in Music	Music	102AD	(3)
Voice 1	Music	145	(1)
Jazz Workshop	Music	234AD	(1)
Music as a Business	Music	262	(2)

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## CONCERT SOUND ENGINEER

This program will provide students with the knowledge, skills and experience to acquire employment in the field of sound reinforcement and concert sound engineering. Numerous and varied hands-on opportunities to do sound reinforcement on and off campus are provided, as well as opportunities to gain the practical and theoretical knowledge necessary for employment.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
<b>First Semester</b>			
Computers in Music	Mus	102AD	(3)
Fundamentals of Music	Mus	115	(3)
Intro Sound Reinforcement	Mus	236AB	(3)
<b>Second Semester</b>			
History of Rock Music	Mus	109	(3)
Concert Sound Engineering	Mus	237AB	(3)
Recording Techniques	Mus	261AB	(2)
<b>Third Semester</b>			
Video Workshop	Film	110	(3)
Concert Sound Engineering	Mus	237AB	(3)
Adv Recording Techniques	Mus	265AD	(2)
<b>Total:</b>			<b>(25)</b>
<b>Suggested electives:</b>			
Technical Electronics	Elec	140	(3)
Stage Crew Activity	Thart	170AD	(1)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MIDI APPLICATIONS

This program is designed for the musician or computer professional who wants a concentrated course of study in the field of computer music. Courses are designed to emphasize the practical application of MIDI (Musical Instrument Digital Interface).

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Intro to Info Sys & Appl	CIS	100	(3)
Computers in Music*	Music	102AD	(12)
Fundamentals of Music	Music	115	(3)
Recording Techniques Workshop	Music	261AB	(2)
<b>Subtotal:</b>			<b>(20)</b>
<b>Select five (5) units from the following:</b>			
PASCAL Programming	C S	115	(4)
C++ Programming 1	C S	150	(4)
Video Workshop	Film	110	(3)
Piano 1	Music	141	(2)
Piano 2	Music	142	(2)
Harmony & Sightsinging 1	Music	180	(5)
Intro Sound Reinforcement	Music	236AB	(3)
Piano 3	Music	241	(2)
Piano 4	Music	242	(2)
<b>Total:</b>			<b>(5)</b>
<b>Total:</b>			<b>(25)</b>

\*Music 102AD (3 units) is to be taken 4 times for 12 units.

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MUSICAL ENTERTAINER- INSTRUMENTAL

This program is designed to give the aspiring commercial instrumentalist a concentrated theoretical background in traditional and commercial music as well as a look at the music industry.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
<b>First Semester</b>		
Ear Training	Music 104AB	(3)
Piano 1	Music 141	(2)
Music Industry Studies	Music 155	(3)
Harmony & Sightsinging 1	Music 180	(5)
Music Performing Group*		(2)
<b>Second Semester</b>		
Piano 2	Music 142	(2)
History of Jazz	Music 173	(3)
Harmony & Sightsinging 2	Music 185	(5)
Applied Music	Music 290AD	(2-4)
Music Performing Group*		(2)
<b>Third Semester</b>		
Sophomore Recital	Music 240	(.5)
Recording Techniques	Music 261AB	(2)
Music as a Business	Music 262	(2)
Jazz/Rock Theory	Music 287AB	(3)
Applied Music	Music 290AD	(2-4)
Music Performing Group*		(2)
<b>Total: (40.5-44.5)</b>		

*\*Music students in this major must participate in at least one major performing group per semester. Students should select a performing group that fits their performance specialty or interest. Vocalists should choose Music 120AD. Instrumentalists should choose from Music 127AD, 132AD, 133AD, 150AB, 230AD, 233AD, 234AD. Guitarists should choose Music 129AD.*

#### Suggested electives:

Computers in Music	Music 102AD	(3)
Studio Guitar 1	Music 151	(1.5)
Studio Guitar 2	Music 152	(1.5)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MUSICAL ENTERTAINER- VOCAL

This program is designed to give the aspiring commercial vocalist a concentrated theoretical background in traditional and commercial music and vocal techniques as well as a look at the music industry.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses	Units
<b>First Semester</b>		
Piano 1	Music 141	(2)
Popular Vocal Techniques	Music 144AD	(2)
Harmony & Sightsinging 1	Music 180	(5)
Music Performing Group*		(2)
<b>Second Semester</b>		
Ear Training	Music 104AB	(3)
Popular Vocal Techniques	Music 144AD	(2)
Music Industry Studies	Music 155	(3)
Applied Music	Music 290AD	(2-4)
Music Performing Group*		(2)
<b>Third Semester</b>		
History of Jazz	Music 173	(3)
Sophomore Recital	Music 240	(.5)
Adv Pop Vocal Techniques	Music 247AB	(2)
Recording Techniques	Music 261AB	(2)
Music as a Business	Music 262	(2)
Applied Music	Music 290AD	(2-4)
Music Performing Group*		(2)
<b>Total: (36.5-40.5)</b>		

*\*Music students in this major must participate in at least one major performing group per semester. Students should select a performing group that fits their performance specialty or interest. Vocalists should choose Music 120AD. Instrumentalists should choose from Music 127AD, 132AD, 133AD, 150AB, 230AD, 233AD, 234AD. Guitarists should choose Music 129AD.*

#### Suggested electives:

Basic Guitar	Music 116	(2)
Recording Techniques	Music 261AB	(2)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## PRIVATE MUSIC TEACHER

This program provides basic skills for private teaching. Broadbased preparation in musical skills and the "art of teaching" are necessary components for successful private music teachers.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	First Semester		
Piano 1	Music	141	(2)
Harmony & Sightsinging 1	Music	180	(5)
Applied Music	Music	290AD	(2-4)
Music Performing Group*			(2)
Second Semester			
Voice 1	Music	145	(1)
Harmony & Sightsinging 2	Music	185	(5)
Sophomore Recital	Music	240	(.5)
Applied Music	Music	290AD	(2-4)
Music Performing Group*			(2)
		<b>Subtotal:</b>	<b>(21.5-25.5)</b>
<b>Select three (3) units from the following:</b>			
History & Apprec of Music	Music	100	(3)
Music in America	Music	170	(3)
			<b>(3)</b>
		<b>Total:</b>	<b>(24.5-28.5)</b>

*\*Music students in this major must participate in at least one major performing group per semester. Students should select a performing group that fits their performance specialty or interest. Vocalists should choose Music 120AD. Instrumentalists should choose from Music 127AD, 132AD, 133AD, 150AB, 230AD, 233AD, 234AD. Guitarists should choose Music 129AD.*

#### Suggested electives:

Computers in Music	Music	102AD	(3)
Beginning Instruments	Music	140AB	(2)
Jazz Improvisation	Music	230AD	(1)
Harmony & Sightsinging 3	Music	280	(5)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## STUDIO GUITAR PERFORMER

A studio guitarist is a complete guitarist and musician who can accurately perform in a variety of musical styles. The courses in this program cover jazz, rock and classical guitar techniques, traditional and commercial music theory and include numerous performance opportunities.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	First Semester		
Piano 1	Music	141	(2)
Classical Guitar 1	Music	148	(2)
Studio Guitar 1	Music	151	(1.5)
Harmony & Sightsinging 1	Music	180	(5)
Second Semester			
Ear Training	Music	104AB	(3)
Guitar Ensemble	Music	129AD	(1)
Classical Guitar 2	Music	149	(2)
Studio Guitar 2	Music	152	(1.5)
Applied Music	Music	290AD	(2-4)
Third Semester			
Guitar Ensemble	Music	129AD	(1)
Music Industry Studies	Music	155	(3)
Sophomore Recital	Music	240	(.5)
Recording Techniques	Music	261AB	(2)
Jazz/Rock Theory	Music	287AB	(3)
Applied Music	Music	290AD	(2-4)
		<b>Total:</b>	<b>(31.5-35.5)</b>

#### Suggested electives:

Rhythm Study 1	Music	101AB	(1)
Computers in Music	Music	102AD	(3)
Popular Vocal Techniques	Music	144AD	(2)
Voice 1	Music	145	(1)
Harmony & Sightsinging 2	Music	185	(5)
Classical Guitar 3	Music	248	(2)
Studio Guitar 3	Music	271	(1.5)
Harmony & Sightsinging 3	Music	280	(5)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

# NEURODIAGNOSTIC TECHNOLOGY

## Associate in Science Degree

Neurodiagnostic Technology (previously known as EEG) is an allied health specialty for diagnosing patients with neurological disorders such as epilepsy, stroke, coma, multiple sclerosis, and others. A competent neurodiagnostic technologist has knowledge of the nervous system and knows how to operate many types of sophisticated instruments properly. Neurodiagnostic technologists are employed in hospitals, clinics, physicians offices, university medical centers and research centers.

Orange Coast College's Neurodiagnostic program provides theory and clinical experience in Electroencephalography (EEG) and in Evoked Potential (BAEP, PVEP, SSEP) testing as well as an introduction to other neurological testing procedures. Some of the testing procedures include Nerve Conduction testing, Brain Mapping, Telemetry, Transcranial Doppler (TCD) Studies, polysomnography and more. The program can be completed in approximately 22 months (4 semesters and 1 summer). Completion of the program earns an Associate in Science Degree in Neurodiagnostic Technology. A new group of students begin this program in the fall semester of even years.

### ASSOCIATE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

Students are required to earn a grade of "C" or better in all program courses and prerequisites.

#### Program prerequisites:

Health Occupations	AI H	010	(.5)
Anatomy-Physiology	Biol	221	(4)
Technical Math*	Tech	040	(3)

**Subtotal: (7.5)**

\*(or Math 010 or higher or placement at Math 030 level)

#### Required Courses

Course			Units
<b>FALL</b>			
Medical Terminology	AI H	111	(3)
Patient Care	AI H	115	(2.5)
Intro to Info Sys & Appl	CIS	100	(3)
Basic EEG	NDT	110	(4)
<b>INTERSESSION</b>			
Neurodiagnostic Lab Practice	NDT	200A	(.5)
<b>SPRING</b>			
Human Diseases	AI H	120	(2)
Advanced EEG	NDT	115	(4)
Clinical Experience 1	NDT	116	(3.5)
Neuro Anatomy & Physiology	NDT	190	(3)
EEG Record Review-Normal	NDT	191	(1)

**CONTINUED NEXT COLUMN**

#### SUMMER

Clinical Experience 2	NDT	117	(3)
-----------------------	-----	-----	-----

#### FALL

Neurologic Disorders	NDT	280	(3)
Intro Transcranial Doppler	NDT	284	(1)
Intro Nerve Conduction Velocity	NDT	285	(1)
Clinical Experience 3	NDT	286	(3.5)
EEG Record Review-Abnormal	NDT	287	(1.5)
Basic Evoked Potentials	NDT	288	(3)

#### INTERSESSION

Neurodiagnostic Lab Practice	NDT	200B	(.5)
------------------------------	-----	------	------

#### SPRING

Clinical Experience 4	NDT	289	(2)
Adv Evoked Potentials	NDT	296	(2)
Microcomputer Applications	NDT	297	(2)
Clinical Internship	NDT	298	(1)
Polysomnography Basics	PSG	100	(1)

**Total: (51)  
(58.5)**

#### Suggested electives:

Advanced Patient Care	AI H	116	(2)
Applied Pharmacology	AI H	130	(2)
Technical Electronics	Elec	140	(3)
Technical Writing & Critical Reasoning	Engl	105	(3)
Child Development	Hmdv	180	(3)
Specialty Procedures	M A	289	(1)
Ethics	Phil	120	(3)
Intro to Physics	Phys	110	(3)
Statistics for Behavioral Sci	Psych	160	(3)
Elementary Spanish	Span	180	(5)
Interpersonal Communication	Spcom	100	(3)

This program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

## Neurodiagnostic Technology Upgrade

The courses required in this professional upgrade certificate are intended for the advanced neurodiagnostic student or for technologists working in the field of electroneurodiagnostic technology. The required courses reflect the most recent industry changes, and many have listed required prerequisites. Certificates will be awarded through the Consumer and Health Sciences division office.

### CERTIFICATE OF COMPLETION

Course	Required Courses		Units
Advanced Evoked Potentials	NDT	296	(2)
Microcomputer Applications	NDT	297	(2)
Polysomnography Basics	PSG	100	(1)
<b>Subtotal:</b>			<b>(5)</b>
<b>Select one (1) course from the following:</b>			
Intro Transcranial Doppler	NDT	284	(1)
Intro Nerve Conduction Velocity	NDT	285	(1)
EEG Record Review-Abnormal	NDT	287	(1.5)
Statistics for Behavioral Sci	Psych	160	(3)
<b>Total:</b>			<b>(1-3) (6-8)</b>

### NUTRITION RELATED CAREERS

--See DIETETICS,

## NUTRITION CAREERS

### CORE CURRICULUM

#### Required Courses

Course			Units
Sanitation & Safety	FSM	160	(3)
Careers in Dietetics/Food Sci	F N/N C	100	(1)
Applied Nutrition	F N	171	(2)
Fitness Programs	P E	107AD	(1-3)
			<b>(7-9)</b>

## COMMUNITY NUTRITION ASSISTANT

This certificate prepares students to work in community agencies such as WIC (Women, Infants, and Children) and Head Start programs as nutrition assistants.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

Course			Units
Core Curriculum			(7-9)
Intro to Nutrition Concepts	F N	140	(2)
Life Cycle Nutrition:Mother/Infant	F N	144	(1)
Life Cycle Nutrition: Children	F N	145	(1)
Cultural Foods	F N	185	(2)
Intermediate Nutrition Care	N C	280	(2)
Supervised Practice	N C	281	(3)

**Subtotal: (18-20)**

#### Select one (1) from the following:

Cooking Essentials	F N	120	(1)
Vegetarian Cuisine	F N	125	(1)
Cooking Lite	F N	173	(1)

**Total (19-21)**

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## NUTRITION EDUCATION

Students who graduate from this program are prepared for employment in one of the fastest growing and most prolific industries in Southern California, encompassing weight control clinics, health and exercise spas and gymnasiums, community agencies concerned with nutrition education, and manufacturers and distributors of nutritionally related products.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	SPRING		
Ore Curriculum			(7-9)
Anatomy & Physiology	Biol	221	(4)
Nutrition	F N	170	(3)
Principles of Food	F N	180	(3)
Cultural Foods	F N	185	(2)
Intro to Med Nutrition Therapy	N C	180	(3)
Intermediate Nutrition Care	N C	280	(2)
Supervised Practice 1	N C	281	(3)
	<b>Subtotal:</b>		<b>(27-29)</b>

#### Select one (1) from the following:

Cooking Essentials	F N	120	(1)
Vegetarian Cuisine	F N	125	(1)
Cooking Lite	F N	173	(1)
	<b>Total</b>		<b>(28-30)</b>

#### Suggested electives:

Intro Display & Visual Presentation	D&VP	180	(3)
Nutrition/Fitness/Performance	F N	136	(3)
Food for Health/Fitness/Perform	F N	136L	(1)
Current Issues Food/Nutr/Food Sci	F N	199AD	(.5-1)
Child Development	Hmdv	180	(3)
Professional Selling	Mktg	110	(3)

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

See Dietetics for related certificate.

## ORNAMENTAL HORTICULTURE

The Ornamental Horticulture program prepares students for many attractively paying positions in the nursery industry. These positions include those in production and sales, interior plantscaping, landscape design, and construction and maintenance.

Students may take one or more courses from the program to learn about horticulture for its own sake and for theirs, or they may take the courses required for the Certificate of Achievement in Ornamental Horticulture. Either option is an introduction to natural beauty. The courses have been designed both for full-time students planning to enter the horticulture field and for those people working in one of the many interesting areas of horticulture who wish to expand their horticultural knowledge. Most classes are conducted during convenient evening hours to allow working students to study for a new career and those with jobs in the field of ornamental horticulture to upgrade their skills.

The Ornamental Horticulture Department boasts excellent facilities, including a well-equipped classroom building set in beautifully landscaped grounds. The grounds themselves have been planted with a large collection of trees, shrubs, ground covers, and vines, and they serve as a laboratory for many of the classes. A nursery with over 6,000 square feet of greenhouse space and 4,000 square feet of shade structures round out this marvelous facility on the Orange Coast College campus.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

A. Preliminary courses which should be taken in the first year:

Course	FALL		Units
Botany*	Biol	183	(3)
Orientation to Horticulture	O H	090	(.5)
Knowing Your Soils	O H	109	(3)
Ornamental Trees	O H	181	(3)
	SPRING		
Ornamental Shrubs	O H	182	(3)
	<b>Subtotal:</b>		<b>(12.5)</b>

\*Transfer students should also take Biology 183L.

B. Suggested second year sequence:

#### Select twelve (12) units from the following:

Course	FALL		Units
Landscape Drafting	O H	111	(1)
Pest Control Applicators & Gardeners P.C.D. Cert	O H	170	(1)
Nursery Practices and Mgmt	O H	184	(3)
Plant Diseases	O H	185	(1.5)
Interior Plantscaping	O H	187	(2)
Intro to Landscape Design	O H	285	(3)

**CONTINUED NEXT PAGE**

**SPRING**

Landscape Maintenance	O H	150	(3)
Plant Propagation	O H	183	(3)
Pests of Ornamentals	O H	186	(1.5)
Turf Culture Mgmt	O H	188	(3)
Weeds & Their Control	O H	189	(1.5)
Xeriscape	O H	190	(2)
Landscape Design Elements	O H	286	(2)
Planting Design	O H	287	(2)
Sprinkler Irrigation Sys Design	O H	288	(1)
Install Residential Irrig Sys	O H	289	(1)
Business elective			(3)

**Total: (12)**  
**(24.5)**

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.



**PHOTOGRAPHY—STILL**

Anyone with an interest in photography, whether beginner, advanced amateur or professional, will find a course or program within the photography program that will teach them new skills or prepare them for a career in photography.

The OCC Photography program is intended to prepare students for employment in a number of specialization areas within the field of professional photography. The student, after completing the first year foundation courses, may elect to take advanced courses in commercial photography, advertising illustration, portraiture, architectural photography, fashion photography, documentary photography, multi-media presentations, photo journalism, retouching and business practices for photographers.

In addition to courses intended to train photographers, the program also includes several black and white and color laboratory classes for professional photographers who wish to learn new skills or for those who are interested in careers as photographic laboratory technicians.

**CERTIFICATE OF ACHIEVEMENT**

<b>Required Courses</b>			
<b>Course</b>			<b>Units</b>
<b>First Semester</b>			
Color & Design 2-D	Art	110	(3)
Intro to Professional Photo (4)	Photo	180	
<b>(Or)</b>			(4-5)
Basic Photography (3)	Photo	120	
(And)			
View Camera (2)	Photo	121	
History & Aesthetics of Photo	Photo	130	(3)
<b>Second Semester</b>			
Intro to Digital Photography	Photo	125	(3)
Lab Practices	Photo	187	(3)
Commercial Photo	Photo	188	(5)
<b>Third Semester</b>			
History/Apprec Western Art (3)	Art	101	
<b>(Or)</b>			(3)
Contemporary Art History (3)	Art	102	
Any "100" level photo course			(2) minimum
Intro to Prof Color Photo	Photo	280	(3)
Art Photography	Photo	283AB	(4)
<b>Fourth Semester</b>			
<b>Select six (6) units from the following:</b>			
Any "200" level photo courses			(6)
<b>Total:</b>			<b>(39-40)</b>

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

# PHYSICAL EDUCATION

—See FITNESS SPECIALIST



# POLYSOMNOGRAPHY

## Associate in Science Degree

Polysomnographic (PSG) Technology is an allied health specialty for the diagnosis and treatment of disorders of sleep and daytime alertness. The range of sleep disorders is varied but includes common disorders such as narcolepsy, sleep apnea, insomnias and many others. PSG technologists operate a variety of sophisticated electronic monitoring devices which record brain activity (EEG), muscle and eye movement, respiration, blood oxygen and other physiological events. Technologists are also involved in evaluation of various treatment methods.

PSG technologists are employed in Sleep Disorders Centers which can be located in medical centers, hospitals or clinic/office settings. OCC's PSG program offers a certificate which will provide lectures, laboratory on campus, clinical experience at accredited sleep centers and physician lectures.

Graduates from OCC's Neurodiagnostic Technology or Respiratory Care programs may complete the PSG certificate program with one additional year of study. Many courses from these programs are directly related to polysomnography. Students without those backgrounds can complete this certificate within two years. This program will accept students to begin in the fall semester of odd years.

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

Students are required to earn a grade of "C" or better in all program courses and prerequisites.

#### Program prerequisite or concurrent enrollment:

Health Occupations	AI H	010	(.5)
Anatomy-Physiology	Biol	221	(4)
Technical Math*	Tech	040	(3)

**Subtotal: (7.5)**

\*(or Math 010 or higher or placement at Math 030 level)

#### Required Courses

Course			Units
<b>FALL</b>			
Medical Terminology	AI H	111	(3)
Intro to Info Sys & Appl	CIS	100	(3)
Basic EEG	NDT	110	(4)
Resp Anatomy & Physiology	Resp C	185	(3)
<b>SPRING</b>			
Human Diseases	AI H	120	(2)
Applied Pharmacology	AI H	130	(2)
Child Development	Hmdv	180	(3)
Intro to Neuroanatomy & Phys	NDT	190	(3)
<b>FALL</b>			
Patient Care	AI H	115	(2.5)
Intro to Polysomnography	PSG	150	(3)
Cardiac Rhythm Analysis	PSG	155	(.5)
Polysomnography Testing	PSG	160	(2)
Polysomnography Clinical 1	PSG	165	(.5)
Polysomnographic Practice	PSG	170	(1)
Pulmonary Pathology	Resp C	265	(3)

**CONTINUED NEXT PAGE**

**INTERSESSION**

Polysomnography Clinical 2	PSG	175	(1)
----------------------------	-----	-----	-----

**SPRING**

Polysomnography Record Review	PSG	250	(2.5)
Advanced Polysomnography	PSG	260	(2)
Polysomnography Clinical 3	PSG	265	(2)
Physician Lecture Series	PSG	270	(1)
Polysomnography Internship	PSG	285	(2)

**Total:** (46)  
(53.5)

**Suggested electives:**

Advanced Patient Care	AL H	116	(2)
Technical Writing & Critical Reasoning	Engl	105	(3)
Neurodiagnostic Lab Practice	NDT	200C	(.5)
Ethics	Phil	120	(3)
Intro to Physics	Phys	110	(3)
Intro to Abnormal Psychology	Psych	158	(3)
Statistics for Behavioral Sci	Psych	160	(3)
Interpersonal Communication	Spcom	100	(3)

**NEURODIAGNOSTIC TECHNOLOGY OPTION**

This option is recommended for Neurodiagnostic Technology graduates who would like to cross-train as Polysomnography Technicians. Accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

**CERTIFICATE OF ACHIEVEMENT**

**Program option prerequisite:**

Neurodiagnostic Technology Associate Degree

**Subtotal: (58.5)**

**Required Courses**

Course			Units
<b>FALL</b>			
Intro to Polysomnography	PSG	150	(3)
Cardiac Rhythm Analysis	PSG	155	(.5)
Polysomnography Testing	PSG	160	(2)
Polysomnography Clinical 1	PSG	165	(.5)
Polysomnographic Practice	PSG	170	(1)
Resp Anatomy & Physiology	Resp C	185	(3)
Pulmonary Pathology	Resp C	265	(3)
<b>INTERSESSION</b>			
Polysomnography Clinical 2	PSG	175	(1)
<b>SPRING</b>			
Applied Pharmacology	AI H	130	(2)
Polysomnography Record Review	PSG	250	(2.5)
Advanced Polysomnography	PSG	260	(2)
Polysomnography Clinical 3	PSG	265	(2)
Physician Lecture Series	PSG	270	(1)
Polysomnography Internship	PSG	285	(2)

**Total: (25.5)  
(84)**



## RESPIRATORY CARE OPTION

This option is recommended for Respiratory Care graduates who would like to cross-train as Polysomnography Technicians.

### CERTIFICATE OF ACHIEVEMENT

#### Program option prerequisite:

Respiratory Care Associate Degree

Required Courses		Subtotal:	(62.5)
Course			Units
<b>FALL</b>			
Intro to Info Sys & Appl	CIS	100	(3)
Basic EEG	NDT	110	(4)
Intro to Polysomnography	PSG	150	(3)
Polysomnography Testing	PSG	160	(2)
Polysomnography Clinical 1	PSG	165	(.5)
Polysomnographic Practice	PSG	170	(1)
<b>INTERSESSION</b>			
Polysomnography Clinical 2	PSG	175	(1)
<b>SPRING</b>			
Intro to Neuroanatomy & Phys	NDT	190	(3)
Polysomnography Record Review	PSG	250	(2.5)
Advanced Polysomnography	PSG	260	(2)
Polysomnography Clinical 3	PSG	265	(2)
Physician Lecture Series	PSG	270	(1)
Polysomnography Internship	PSG	285	(2)
		<b>Total:</b>	<b>(27)</b>
			<b>(89.5)</b>

## RADIOLOGIC TECHNOLOGY (DIAGNOSTIC)

### Associate in Science Degree

The Radiologic Technologist prepares demonstrations of human anatomy on an x-ray film or fluoroscopic screen for diagnostic use by a radiologist or other medical specialist. Graduates of the program are eligible for examination by the American Registry of Radiologist Technologists. Successful applicants have the right to use the title "Registered Radiologic Technologist" (RT(R)). In order to practice in California, the R.T. must also apply for certification by the Department of Health Services in Sacramento. Completion of the Associate in Science degree a program qualifies the student for eligibility for the state C.R.T. Examination. A bachelor degree program has been articulated with CSU Northridge.

The Orange Coast College Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 900, Chicago, IL 60606-2901, Tel: (312) 704-5300, Fax: (312) 704-5304 and approved by the California Department of Health Services and is affiliated with numerous hospitals in Orange County. In this training consortium, students are rotated through planned learning experiences. Classrooms are well equipped and include on-campus energized x-ray laboratories.

Program application process is accomplished by taking program prerequisite, Allied Health 010. This short-term course is mandatory for all prospective program applicants. See current class schedule for specific course meeting times. Although applications are accepted throughout the year, the Radiologic Technology program starts only in the fall semester of every school year.

In addition to the Allied Health 010 course, the program has other prerequisites which must be completed with grade "C" or better before program entry. Students with prior Radiologic Technology training or experience may be eligible for a waiver of Allied Health 010 and/or advanced program standing.

The Radiologic Technology program is a full-time (two years including one summer session and two intersessions) program. Successful program completion requires the following: 1) completion of all required radiologic technology courses as outlined in catalog, 2) completion of approximately 1850 clinical hours, and 3) completion of all requirements for Associate in Science degree as required by Orange Coast College. These specific program completion requirements must be satisfied within the two-year time frame of the Radiologic Technology program. Eligibility for the post program state and registry examinations are dependent upon meeting these requirements. The program applicant needs to complete all units of the General Education requirement before program entry. This program requires the student to participate in clinical experience concurrent with classroom courses. Clinical responsibilities will be arranged by the Radiologic Technology faculty and will include evening and/or weekend assignments. The student receives no salary for this clinical experience but will receive course credit toward program completion.

Radiologic Technology is a rapidly expanding allied health profession.

#### Employment possibilities include:

- Hospitals**
- Imaging Centers**
- Private Offices**
- Medical Clinics**
- Industry**
- Sales**

**CONTINUED NEXT PAGE**

## ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

### Program prerequisite:

High School graduate, G.E.D., or California Proficiency Exam.

Preliminary group of courses which must be taken prior to enrollment in the major course sequence as outlined in "B":

Health Occupations	Al H	010	(.5)
Medical Terminology	Al H	111	(3)
Anatomy-Physiology	Biol	221	(4)
Technical Math*	Tech	040	(3)
<b>Subtotal:</b>			<b>(10.5)</b>

\*(or Math 010 or higher or placement at Math 030 level)

Students are required to earn a grade of "C" or better in all courses.

B. Required courses for this major:

Course			Units
<b>FIRST YEAR</b>			
<b>FALL</b>			
Patient Care	Al H	115	(2.5)
Rad Physics & Protection	Rad T	110	(3)
Beg Radiologic Practice	Rad T	165	(1.5)
Rad Positioning/Critique 1	Rad T	170	(3)
Clinical Lab 1	Rad T	171	(1)
Radiographic Imaging	Rad T	180	(3)
<b>INTERSESSION</b>			
Clinical Lab 2	Rad T	172	(1)
<b>SPRING</b>			
Human Diseases	Al H	120	(2)
Rad Positioning/Critique 2	Rad T	175	(3)
Clinical Lab 3	Rad T	176	(5.5)
Radiographic Pathology	Rad T	185	(1)
<b>SUMMER</b>			
Clinical Lab 4	Rad T	177	(3)
<b>SECOND YEAR</b>			
<b>FALL</b>			
Digital Imaging & Computer Applications	Rad T	265	(2)
Rad Positioning/Critique 3	Rad T	270	(3)
Clinical Lab 5	Rad T	271	(7.5)
<b>INTERSESSION</b>			
Clinical Lab 6	Rad T	276	(1)
<b>SPRING</b>			
Advanced Patient Care	Al H	116	(2)
Rad Positioning/Critique 4	Rad T	275	(3)
CRT/ARRT Board Prep	Rad T	285	(1)
Applied Physics & Fluoroscopy	Rad T	290	(2.5)
Clinical Lab 7	Rad T	277	(5.5)
			<b>(57)</b>
<b>Total:</b>			<b>(67.5)</b>
<b>Suggested elective:</b>			
Ethics	Phil	120	(3)

## REAL ESTATE – BROKER

Students who complete the Real Estate-Broker Certificate of Achievement are equipped with immediately marketable skills and also the coursework necessary to sit for the California Real Estate Broker's Examination. All courses must be completed with a grade of "C" or better.

### CERTIFICATE OF ACHIEVEMENT

Course			Units
<b>Required Courses</b>			
Accounting for Small Business (3)	Acct	100	
<b>(Or)</b>			
Financial Accounting (4)	Acct	101	(3-4)
Business Law	Bus	110	(3)
Macroeconomics	Econ	180	
<b>(Or)</b>			
Microeconomics	Econ	185	(3)
Real Estate Principles	R E	110	(3)
Legal Aspects of Real Estate	R E	120	(3)
Real Estate Practice	R E	130	(3)
Real Estate Appraisal	R E	140	(3)
Real Estate Finance	R E	150	(3)
<b>Total:</b>			<b>(24-25)</b>

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and either the Associate in Arts or Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.



## REAL ESTATE – SALESPERSON

This program is designed for those individuals interested in pursuing a career in real estate. Real Estate Salesperson license requirements: Real Estate 110 is required prior to the state exam. Two additional electives must be completed within 18 months after passing the exam. Please check with the California Department of Real Estate for any changes.

### CERTIFICATE OF COMPLETION

Required Courses				Units
Course				
Real Estate Principles	R E	110		(3)
Real Estate Practice	R E	130		(3)
Legal Aspects of Real Estate	R E	120		
<b>(Or)</b>				
Real Estate Appraisal	R E	140		(3)
<b>(Or)</b>				
Real Estate Finance	R E	150		
		<b>Total:</b>		<b>(9)</b>
<b>Suggested electives:</b>				
Accounting for Small Business	Acct	100		(3)
Business Law	Bus	110		(3)
Intro to Info Sys & Appl	CIS	100		(3)
Macroeconomics	Econ	180		(3)
Microeconomics	Econ	185		(3)

## RELIGIOUS STUDIES

Completing the Religious Studies Certificate of Achievement program provides students with an in-depth background and broad understanding of religion. Students may work toward an Associate in Arts degree or upper division status as a Religious Studies major under Plan B. Religious Studies helps one to understand all cultures, including the American culture with its rich religious diversity. This program will prepare the student for world understanding and world travel.

### CERTIFICATE OF ACHIEVEMENT

Required Courses				Units
Course				
Intro to Religious Studies	Rel St	100		(3)
World Religions	Rel St	110		(3)
Introduction to the Bible	Rel St	125		(3)
History of Christianity	Rel St	128		(3)
History of Judaism	Rel St	140		(3)
Eastern Thought	Rel St	150		(3)
		<b>Subtotal:</b>		<b>(18)</b>

**CONTINUED NEXT COLUMN**

### Select six (6) units from the following-Group B:

Philosophy of Religion	Phil	115	(3)
Ethics	Phil	120	(3)
Life & Times of Jesus	Rel St	130	(3)
Mysticism and Meditation	Rel St	145	(3)
Islam	Rel St	160	(3)
The Bible as Literature	Rel St	180	(3)

**(6)**

### Select nine (9) units from the following-Group C:

Anthropology 100, 102, or 280
Art 100, 101, 102
English 141, 160, 161, or 176
History 110, 128, 180, 185 or 190
Humanities 100
Philosophy 100, 118, 150 or 185
Psychology 100 or 110
Sociology 180
Speech Communication 100 or 110

**(9)**

**Total: (33)**

### Suggested Schedule of Classes

Course			Units
<b>First Semester</b>			
Intro to Religious Studies	Rel St	100	(3)
World Religions	Rel St	110	(3)
One Course Group B List			(3)
<b>Second Semester</b>			
Introduction to the Bible	Rel St	125	(3)
History of Christianity	Rel St	128	(3)
One Course Group B List			(3)
<b>Third Semester</b>			
History of Judaism	Rel St	140	(3)
Eastern Thought	Rel St	150	(3)
One Course Group C List			(3)
<b>Fourth Semester</b>			
One Course Group C List			(3)
One Course Group C List			(3)

**(33)**

This program will meet major requirements for the Associate in Arts degree but has not been articulated with any particular four-year institution. Students should not expect that they will necessarily meet the lower division requirements at specific colleges or universities. Students should consult the Transfer Information section of this catalog for specific information.

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

# RESPIRATORY CARE

## Associate in Science Degree

Respiratory Care is an allied health specialty dealing with the diagnosis, treatment, and management of patients with acute and chronic diseases affecting the pulmonary system. Respiratory Care Practitioners/Respiratory Therapists work in all areas within the hospital, especially within the critical care areas with patients who are in a life-threatening phase of their illness. Additionally, some Respiratory Care Practitioners/Respiratory Therapists work with home care agencies to treat patients in their homes. Duties include analysis of pulmonary function and arterial blood gases, life support ventilation, CPR, assessment of pulmonary status, airway care, plus other related duties. Specialties in Respiratory Care include adult critical care, neonatal and pediatric critical care, pulmonary function testing, home care and rehabilitation, management, and education.

The Respiratory Care program at Orange Coast College is a two-year Associate in Science Degree program beginning each fall semester. The student must complete General Education requirements and program prerequisites prior to entering the program. Courses within the program include lectures, skills application of procedures and techniques in a laboratory setting on campus, and approximately 1000 hours of clinical practice. Clinical practice is within area hospitals performing the latest procedures in medicine. There is also a series including discussions with physicians.

The Respiratory Care program at Orange Coast College is fully accredited. Program graduates are eligible for California legal certification (licensure) (RCP) and Certification (CRT) and Registry (RRT) by the National Board for Respiratory Care. The employment outlook for Respiratory Care Practitioners/Respiratory Therapists is very good throughout the United States. Most graduates obtain jobs within the Orange County/Long Beach areas.

**Employment possibilities include:**  
**Respiratory Therapist**  
**Respiratory Therapy Specialist**  
**Respiratory Care Practitioner**

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

All courses must be completed with grade of "C" or better.

**Prerequisites:**

Health Occupations	Al H	010	(.5)
Anatomy-Physiology	Biol	221	(4)

**Required Courses**

Course			Units
<b>FALL</b>			
Medical Terminology	Al H	111	(3)
Patient Care	Al H	115	(2.5)
Basic Microbiology	Biol	114	(2)
Introductory Chemistry	Chem	110	(5)
Resp Anatomy & Physiology	Resp C	185	(3)
<b>SPRING</b>			
Human Diseases	Al H	120	(2)
Applied Pharmacology	Al H	130	(2)
Basic Resp Care Equip	Resp C	190	(3)
Clinical Lab 1	Resp C	191	(1.5)
Respiratory Pharmacology	Resp C	195	(1)

**CONTINUED NEXT COLUMN**

Home Care & Rehabilitation	Resp C	255	(1)
Interpersonal Communication	Spcom	100	
<b>(Or)</b>			(3)
Public Speaking	Spcom	110	
<b>SUMMER</b>			
Clinical Lab 2	Resp C	192	(1)
<b>FALL</b>			
Arterial Blood Gases, Theory & Prac	Resp C	260	(2.5)
Pulmonary Pathology	Resp C	265	(3)
Ventilators & Resp Mgmt	Resp C	270	(2)
Resp Care Procedures	Resp C	275	(3)
Clinical Lab 3	Resp C	276	(4)
Physician Series 1	Resp C	279	(.5)
<b>INTERSESSION</b>			
Pulmonary Case Assessment	Resp C	278	(1)
<b>SPRING</b>			
Polysomnography Basics	PSG	100	(1)
Critical Care Monitoring	Resp C	280	(1)
Pulmonary Func Testing	Resp C	285	(2)
Clinical Lab 4	Resp C	286	(3)
Clinical Internship	Resp C	287	(2)
Neonatal Intensive Care	Resp C	290	(2)
Respiratory Care Board Review	Resp C	296	(1)
<b>Total:</b>			<b>(62.5)</b>

Fully accredited Respiratory Therapist Program by the Commission on Accreditation of Allied Health Education Programs.

State License: Legally Certified Respiratory Care Practitioner by Respiratory Care Board of California.

National Credential: CRT, RRT, CRTT, CPFT, by the National Board for Respiratory Care (NBRC)

Program requires successful completion of a comprehensive national exam for graduation.

Full-time and part-time program options available.

# SCHOOL HEALTH ASSISTANT

The School Health Assistant provides services to children in the educational system under the supervision of the school administrator and/or the school nurse. Duties include health-related services, clerical duties, documentation, maintenance of facilities, and assistance in activities to improve and promote optimal student health.

**CERTIFICATE OF COMPLETION**

Course	Required Courses	Units
Disaster Preparedness	E C 262	(.5)
Child Abuse ID & Referral	E C 263	(.5)
Emergency Medical Care-Children	EMT 145	(1)
Child Development	Hmdv 180	(3)
School Health Assist Admin	SHA 100	(3)
School Healthcare for Children	SHA 105	(4)
<b>Total:</b>		<b>(12)</b>
<b>Suggested electives:</b>		
Health Occupations	AI H 010	(.5)
Medical Terminology	AI H 111	(3)
Human Diseases	AI H 120	(2)
Cross-Cultural Perspectives	E C 126	(3)
Guidance for Young Children	E C 157	(3)
Life Cycle Nutrition: Children	F N 145	(1)
Child-Family-Community	Hmdv 190	(3)
Interpersonal Communication	Spcom 100	(3)

# SPEECH-LANGUAGE PATHOLOGY ASSISTANT

## Associate in Science Degree

The Speech-Language Pathology Assistant program will provide the community with professionally trained personnel to assist the speech pathologist in this specialized field and to provide services in multiple settings to a diverse population in the administration of therapeutic and screening services.

State of California Department of Consumer Affairs, Speech-Language Pathology and Audiology Board approved for licensure.

**Employment possibilities include:**

- Private Offices**
- Hospitals**
- Educational Institutes**
- Rehabilitation Centers**

**ASSOCIATE IN SCIENCE DEGREE PROGRAM**

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

All courses must be completed with grade of "C" or better.

**Prerequisites:**

Health Occupations	AI H	010	(.5)
Child Development	Hmdv	180	(3)
<b>Subtotal:</b>			<b>(3.5)</b>

Course	Required Courses		Units
<b>FALL</b>			
Patient Care	AI H	115	(2.5)
Medical Terminology	AI H	111	(3)
Intro to Linguistics	Anth	190	(3)
Intro Speech Pathology Asst	SLPA	100	(2)
Speech/Language/Hearing Dev	SLPA	115	(3)
Speech-Language Admin Proced	SLPA	120	(2)
<b>SPRING</b>			
Early Child Dev Thru Play	E C	155	(3)
Early Childhood Laboratory	E C	156	(2)
Observe/Record Behavior	E C	165	(2)
Intro to Commun Disorders	SLPA	140	(3)
Intro to Phonetics	SLPA	150	(3)
Clinical Experience 1	SLPA	160	(.5)
<b>FALL</b>			
Anatomy-Physiology	Biol	221	(4)
Screen/Therapeutic Process	SLPA	180	(3)
Clinical Experience 2	SLPA	190	(2)
<b>SPRING</b>			
Human Diseases	AI H	120	(2)
The Exceptional Child	Hmdv	210	(3)
Adult/Geriatric Disorders	SLPA	200	(2)
Clinical Experience 3	SLPA	250	(4)
<b>Total:</b>			<b>(52.5)</b>

**Suggested electives:**

Ethics	Phil	120	(3)
Any American Sign Language course (Golden West or Coastline Community Colleges)			

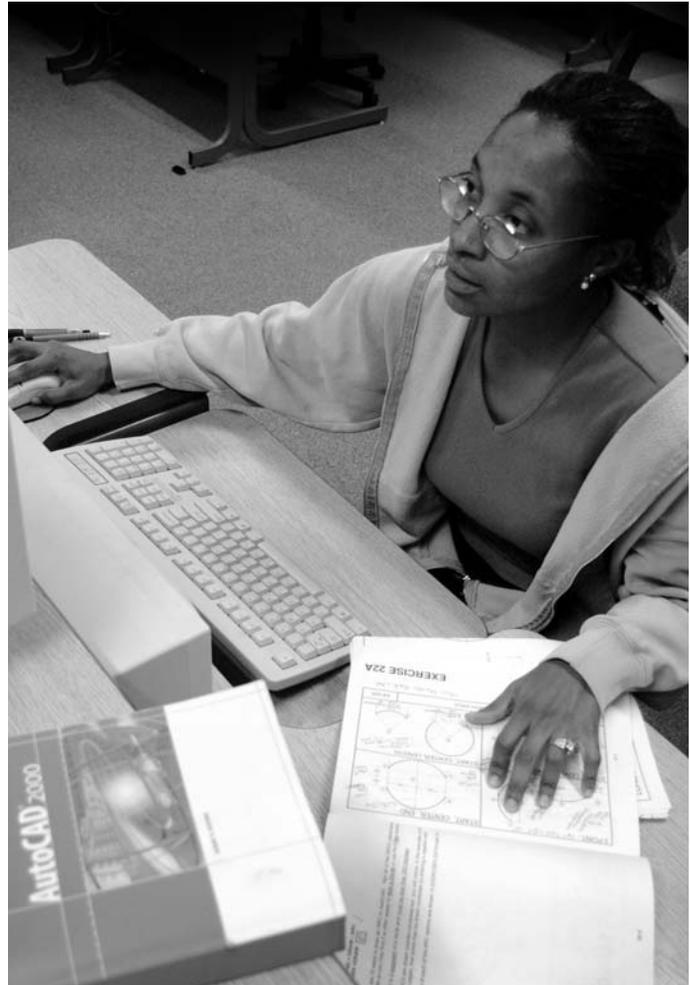
## TECHNICAL WRITING

Orange Coast College's Technical Writing Certificate of Completion identifies students who are prepared for many entry-level technical writing positions. Students will also be prepared to pursue technical writing interests by entering technical writing programs at four year universities; however, students should not expect that they will necessarily meet the lower division requirements at specific colleges or universities by completing the certificate.

For the Technical Writing certificate a student must complete 15 units as described below with a grade of "C" or better in all courses.

### CERTIFICATE OF COMPLETION

<b>Required Courses</b>				
<b>Course</b>				<b>Units</b>
Freshman Composition	Engl	100		(3)
Technical Report Writing	Engl	105		
<b>(Or)</b>				<b>(3)</b>
Critical Reasoning & Writing for Science & Technology	Engl	109		
			<b>Subtotal:</b>	<b>(6)</b>
<b>Communication skill elective</b>				
<b>Select one (1) course from the following:</b>				
Critical Reasoning, Reading, Writing thru Nonfiction	Engl	102		(3)
Honors Critical Reasoning, Reading, Writing thru Nonfiction	Engl	102H		(3)
Scriptwriting	Engl	127AD		(3)
Public Relations	MComm	140		(3)
Interpersonal Communications	Spcom	100		(3)
Public Speaking	Spcom	110		(3)
				<b>(3)</b>
<b>Visual Presentation &amp; Production Layout</b>				
<b>Select six (6) units from the following:</b>				
Product Illustration	Art	118		(2)
Intro to Info Sys & Micro Appl	CIS	100		(3)
Desktop Publishing	CIS	103		(4)
PowerPoint	CIS	133		(1)
Excel 1	CIS	134		(2)
Computer Use in Technology	Comp HT	100		(3)
Intro Computer Graphics	DMA&D	181		(3)
Graphic Design	DMA&D	182AC		(4)
Digital Prepress	DMA&D	183		(4)
Illus & Computer Graphics 1	DMA&D	190		(4)
Basic Drafting Practices	Draft	110		(4)
Engineering Drafting Design 1	Draft	115		(4)
Basic Computer Design	Draft	150ab		(4)
Video Workshop	Film	110		(3)
Newspaper Production	Journ	115AD	(3-7)	
Basic Photography	Photo	120		(3)
View Camera	Photo	121		(2)
Intro Digital Photography	Photo	125		(3)
				<b>(6)</b>
			<b>Total:</b>	<b>(15)</b>



## WELDING TECHNOLOGY

Welding Technology is the application of the art and science of joining metals. Welding technologists have important roles in the fabrication and construction of nuclear and fossil fuel power plants, heavy equipment, agricultural machinery, petro-chemical plants, bridges, buildings, floating and underwater vessels, automobiles, appliances, and projects for national security. Specifically anything involving metals, from miniature electronic devices to sophisticated space projects, will require the skills of the expert welding technologist. These highly skilled members of the technological team apply practical working knowledge of welding processes, welding metallurgy and welding code standards in solving problems of welding design and production. The field is open to men and women. The OCC Welding Department is licensed to qualify (certify) welders to code standards.

## WELDING TECHNOLOGY

The Certificate of Achievement program in Welding Technology is for those who desire advanced knowledge of welding for employment as welding technicians, welding inspectors, welding engineers, welding supervisors, and advanced welders. Students also completing the required general education requirements and electives may earn the Associate in Science degree. In addition, many OCC welding courses are transferable and can be used by those students who are interested in the welding engineering degree program at Ohio State University. Whatever the case, a person's chances for the job of their choice are much higher when they have the technical background as evidenced by earning our Certificate of Achievement in welding.

### CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	FALL			
Technical Report Writing (Or)	Engl	105		(3)
Freshman Composition	Engl	100		
Arc & Oxy Welding (3) (Or)	Weld	100		(3-4)
Arc & Oxy Welding (4)	Weld	101		
Welding Math & Science	Weld	120		(3)
<b>SPRING</b>				
Advanced Welding (3) (Or)	Weld	200		(3-4)
Advanced Welding (4)	Weld	201		
Welding Metallurgy	Weld	230		(3)
<b>FALL</b>				
Basic Drafting Practices	Draft	110		(4)
Welding Inspec & Test	Weld	210		(4)
<b>SPRING</b>				
Blueprint Reading	Weld	180		(3)
Welding Specs and Codes	Weld	220		(2)
<b>Total:</b>				<b>(28-30)</b>

CONTINUED NEXT COLUMN

### Suggested electives:

Arc-Oxy Weld (Open Lab)	Weld	115AD	(1-2)
GTAW (Gas Tungsten Arc Weld)	Weld	130AD	(1.5)
Arc-Oxy Weld (Open Lab)	Weld	215AD	(1-2)
Pipe Welding	Weld	250AD	(3)

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## WELD TESTING

The Weld Testing Certificates of Completion will be awarded upon successful completion of a proficiency test for each identified level (e.g., Level I, II, etc.) within a category of welding (i.e., SMAW, FCAW, GTAW, GMAW or Pipe). The indicated Weld Testing class must be repeated for each type of certificate received. Higher levels of certification will potentially lead to better paying jobs within the industry.

## Basic Welding (SMAW)

### SKILL CERTIFICATE

#### Required Courses

Course			Units
Arc & Oxy Welding	Weld	100	(3)
Weld Testing Basic	Weld	105AD	(.5)
<b>(3.5)</b>			

This Certificate of Completion certifies mastery of basic Shielded Metal Arc Welding (SMAW) Levels I, II, III, or IV.

## Intermediate Welding (SMAW)

### SKILL CERTIFICATE

#### Required Courses

Course			Units
Arc & Oxy Welding	Weld	100	(3)
Weld Testing Intermediate	Weld	106AB	(.5)
Arc & Oxy Weld Practice (1-2)	Weld	115AD(1) minimum	
<b>(4.5)</b>			

This Certificate of Completion certifies mastery of intermediate Shielded Metal Arc Welding (SMAW) Levels V or VI.

## Advanced Welding (SMAW)

### CERTIFICATE OF COMPLETION

Required Courses			Units
Course			
Arc & Oxy Welding	Weld	100	(3)
Weld Testing Advanced	Weld	107AC	(.5)
Arc & Oxy Welding Pract (1-2)	Weld	115AD	
<b>(Or)</b>			(3) minimum
Adv Arc & Oxy Weld Pract (1-2)	Weld	215AD	
Advanced Welding	Weld	200	(3)
			<b>(9.5)</b>

This Certificate of Completion certifies mastery of first level advanced welding in Shielded Metal Arc Welding (SMAW) Levels VII, VIII and IX.

## Advanced I Welding (FCAW)

### CERTIFICATE OF COMPLETION

Required Courses			Units
Course			
Arc & Oxy Welding	Weld	100	(3)
Weld Testing Advanced	Weld	108AB	(.5)
Arc & Oxy Welding Pract (1-2)	Weld	115AD	
<b>(Or)</b>			(3) minimum
Adv Arc & Oxy Weld Pract (1-2)	Weld	215AD	
Advanced Welding	Weld	200	(3)
			<b>(9.5)</b>

This Certificate of Completion certifies mastery of first level advanced welding in Flux-Cored Arc Welding (FCAW) Levels I, II, & or IV.

## Advanced II Welding (FCAW)

### CERTIFICATE OF COMPLETION

Required Courses			Units
Course			
Arc & Oxy Welding	Weld	100	(3)
Weld Testing FCAW (.5)	Weld	109AD	
<b>(Or)</b>			(.5)
Weld Testing FCAW	Weld	110	
Arc & Oxy Welding Pract (1-2)	Weld	115AD	
<b>(Or)</b>			(5) minimum
Adv Arc & Oxy Weld Pract (1-2)	Weld	215AD	
Advanced Welding	Weld	200	(3)
			<b>(11.5)</b>

This Certificate of Completion certifies mastery of second level advanced welding in Flux-Cored Arc Welding (FCAW) Levels V, VI, VII, VIII, or IX.

## Gas Tungsten Arc Welding (GTAW)

### SKILL CERTIFICATE

Required Courses			Units
Course			
Arc & Oxy Welding	Weld	100	(3)
Weld Testing GTAW	Weld	104	(.5)
Gas Tungsten Arc Welding	Weld	130AD	(1.5)
			<b>(5)</b>

This Certificate of Completion certifies mastery of skills necessary for Gas Tungsten Arc Welding (GTAW) Level I.

## Gas Metal Arc Welding (GMAW)

### CERTIFICATE OF COMPLETION

Required Courses			Units
Course			
Arc & Oxy Welding	Weld	100	(3)
Weld Testing GMAW (.5)	Weld	102AD	
<b>(Or)</b>			(.5)
Weld Testing GMAW (.5)	Weld	103	
Adv Arc & Oxy Welding	Weld	200	(3)
			<b>(6.5)</b>

This Certificate of Completion certifies mastery of skills necessary for Gas Metal Arc Welding (GMAW) Levels I, II, III, IV or V.

## Pipe

### CERTIFICATE OF COMPLETION

Required Courses			Units
Course			
Arc & Oxy Welding	Weld	100	(3)
Weld Testing Pipe	Weld	111AB	(.5)
Adv Arc & Oxy Welding	Weld	200	(3)
Pipe Welding and Adv GTAW	Weld	250AD	(3)
			<b>(9.5)</b>

This Certificate of Completion certifies mastery of skills necessary or Pipe Levels I and/or II.



# **COURSE DESCRIPTIONS**

## Transfer Courses

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated 'UC.' Some of these courses have limits on the amount of credit that is granted. See the UC Transferable Course List available in the Counseling Center or Transfer Center for these limitations.

Courses that are non-credit or not AA degree applicable are designated with the letter 'N' preceding the course number.

Identification of courses that have been accepted into the California Articulation Number (CAN) system appears after the course title.

## ACCOUNTING

### Accounting 100—Accounting for Small Business (3)

Accounting for small businesses in services and retail. The course includes basic accounting procedures, preparation and analysis of financial statements, banking, payroll processing, and forms. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Accounting 101—Financial Accounting (4) (CAN BUS 2)

A course covering the fundamentals of financial accounting of the corporate entity. Involves the analysis, recording, and summarizing of accounting transactions on the accrual basis. Emphasis on accounting as an information system meeting the demands of users for decision making. This course may also be offered online. Five hours. **Transfer Credit: CSU; UC.**

### Accounting 102—Managerial Accounting (4) (CAN BUS 4)

**Prerequisite:** Accounting 101.

Introduction to management's use of accounting information for planning, control, and decision-making within an organization. Covers both traditional and contemporary topics, including product costing, overhead, budgeting, cash flow, financial statement analysis, and the advanced manufacturing environment. This course may also be offered online. Five hours. **Transfer Credit: CSU; UC.**

### Accounting 110—Accounting Information Systems 1 (3)

**Prerequisite:** Accounting 100 or 101.

**Recommended preparation:** Computer Information Systems 100 or 134 or Computer Science 111.

Introductory course to accounting information systems which applies accounting principles using general ledger and spreadsheet software. This course is designed to develop employable accounting analysis skills, evaluate and compare commercial software, and analyze financial reporting. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

### Accounting 111—Federal Income Tax (3)

Introduction to federal income taxation theory and practice as applied to individuals. Covers gross income, business and personal deductions, exemptions, tax credits, property transactions, and tax computation. Includes individual and group problem solving, tax return preparation, and research on the internet (IRS web site). May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Accounting 112—Accounting with QuickBooks (2)

**Prerequisite:** Accounting 100 or 101.

QuickBooks is a complete computerized accounting system for small businesses. Topics include a review of basic accounting concepts, preparation of business reports and graphs, and the creation of a company using QuickBooks accounting. May be taken for grades or on a credit-no credit basis. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

### Accounting 114—Volunteer Income Tax Assistance (VITA) (1) (10 week course)

**Recommended preparation:** Accounting 111.

This hands-on course provides training and an experiential service learning opportunity in the preparation of federal and California individual income tax returns. After attending training and review classes and passing the IRS and California individual income tax exams, the student volunteers will provide a minimum of fifty hours of free tax assistance to community residents with low to moderate incomes, with disabilities, and to non-English speaking, and elderly taxpayers. Offered on a credit-no credit basis only. Five hours. **Transfer Credit: CSU.**

### Accounting 115—Medical Bookkeeping (4)

Terminology, techniques, application, hands-on training of accounts receivable and accounts payable systems, and payroll as it pertains to the medical office. Course includes computerized procedures. Same as Medical Assisting 115. Students completing Accounting 115 may not receive credit for Medical Assisting 115. Four hours. **Transfer Credit: CSU.**

### Accounting 210—Cost Accounting (3)

**Prerequisite:** Accounting 102.

This course covers cost accounting concepts and practices. It includes the determination, analysis, and control of product costs (materials, labor, and overhead) through traditional and advanced costing systems. Other managerial tools such as budgeting and break-even analysis, capital budgeting decisions, and cost accounting on government contracts are also considered. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Accounting 211—Intermediate Accounting (4)

**Prerequisite:** Accounting 102.

Financial accounting theory and practice. Reviews and builds upon concepts learned in earlier accounting courses. Emphasizes preparation and analysis of more complex accounting records and financial statements for corporations, including the underlying principles involved. Five hours. **Transfer Credit: CSU.**

## AIRLINE AND TRAVEL CAREERS

### Airline and Travel Careers 105AC—Public Service for Airline and Travel Careers (2-4)

Field service training for students to utilize communication, social skills, and knowledge of airline and travel industry. Classroom plus field service will enable students to utilize skills in corporate, travel, airport, airline, community and public service environments. This formal internship program enables students to work at their own level to recruit, train, and supervise other students. Four hours or eight hours lecture/field service. **Transfer Credit: CSU.**

### Airline and Travel Careers 110—Personal Development, Appearance, Image and Attitude (1.5) (8 week course)

Personal development to include appearance, image, attitude, lifestyle decisions, etiquette, and wellness. Personality development, techniques to build confidence, and professional and business skills to secure successful employment. Three hours. **Transfer Credit: CSU.**

### Airline and Travel Careers 111—Travel Careers Survey (1.5) (8 week course)

Employment opportunities, qualifications, salaries, benefits in travel careers including airlines, airports, train, cruise/adventure travel, tours, hospitality, corporate, sports, agencies, general/commercial aviation, and support businesses. Three hours. **Transfer Credit: CSU.**

### Airline and Travel Careers 112—Flight Attendant Qualifications and Opportunities (1.5) (8 week course)

Survey of flight attendant and inflight service team qualifications and opportunities for employment, including base stations, responsibilities, salary schedule, and benefits. Three hours. **Transfer Credit: CSU.**

### Airline and Travel Careers 114—Employment Skills—Written (1.5) (8 week course)

Written skills for becoming employed, including resume, application, business letters, self-evaluation, and marketing plan, and an updated personal register of employment data. Employment testing, labor organizations, and affirmative action will be discussed. Three hours. **Transfer Credit: CSU.**

### Airline and Travel Careers 115—Employment Interviewing Techniques (1.5) (8 week course)

Build confidence for interview process, design self-marketing plan, analyze interview techniques and employment tests, evaluate interviewer's questions and expected answers, use of video taped interviews and critique. Three hours. **Transfer Credit: CSU.**

### Airline and Travel Careers 116—Travel Industry Operations and Terminology (1.5) (8 week course)

Preparation for stringent demands of airline travel career training and FAA exams to include industry terminology, airline codes, schedules, Official Airline Guide, federal agencies, airport operations, history, airline deregulation, mergers and acquisitions and their effects. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 119—Travel Safety Inflight and Ground (1.5) (8 week course)**

Travel safety and security to include ground and inflight equipment, passenger psychology, airport security, federal regulations, safety precautions while traveling, anti-terrorism and hijacking discussion. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 120—Service Excellence Inflight and Ground (1.5) (8 week course)**

Service techniques and presentation for inflight and ground operations. Identification and pronunciation of foods and beverages plus knowledge of equipment to provide quality service while developing a personal serving style. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 122—Travel Geography—United States (1.5) (8 week course)**

This course provides the traveler and industry employee with information for maximizing the travel experience to include regional accents and dialects, shopping, historical and recreational tourist destinations, and regional culture and cultural diversity for the United States. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 123—Travel Geography—Northern Europe (1.5) (8 week course)**

This course provides the traveler and industry employee with information for maximizing the travel experience to include customs, entry requirements, currency, language and dialects, shopping, historical and recreational tourist destinations, and regional culture and cultural diversity for Scandinavia, the British Isles, the Low Countries. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 124—Travel Geography—Africa (1.5) (8 week course)**

This course provides the traveler and industry employee with information for maximizing the travel experience to include customs, entry requirements, currency, language and dialects, shopping, historical and recreational tourist destinations, and regional culture and cultural diversity for Africa. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 125—Travel Geography—The Americas (1.5) (8 week course)**

Traveler's information for maximizing sightseeing to include culture, currency, language, shopping, tourist destinations and information. Canada, Mexico, Caribbean, Central America and South America. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 126—Travel Geography—Southern Europe (1.5) (8 week course)**

This course provides the traveler and industry employee with information for maximizing the travel experience to include regional accents and dialects, shopping, historical and recreational tourist destinations, and regional culture and cultural diversity for Greece, Spain, Portugal, Italy, Austria, Germany, Switzerland, and France. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Airline and Travel Careers 127—Travel Geography—Eastern Europe (1.5) (8 week course)**

This course provides the traveler and industry employee with information for maximizing the travel experience to include regional accents and dialects, shopping, historical and recreational tourist destinations, and regional culture and cultural diversity for Russia and Republics, Czechoslovakia, Hungary, Poland, Yugoslav Republics, Romania, and Albania. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 128—Travel Geography—Pacific Rim (1.5) (8 week course)**

This course provides the traveler and industry employee with information for maximizing the travel experience to include regional accents and dialects, shopping, historical and recreational tourist destinations, and regional culture and cultural diversity for Australia, New Zealand, Japan, South Korea, Hong Kong, China, Taiwan, Thailand, Philippines, Tahiti, Samoa, Fiji, Singapore, Malaysia, Indonesia, and Indochina. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 132—Intercultural Awareness and Etiquette (1.5) (8 week course)**

This course will provide the student with intercultural awareness and multicultural insight into the cultures of the world including Latin, Asian, Middle Eastern, African, and European countries. Curriculum includes: values, historical beliefs, and religion, plus cultural etiquette to include social practices, gestures, body language, eating, drinking practices, and business behavior. Three hours. **Transfer Credit: CSU.**

**Airline and Travel Careers 134—Computer Use for Travel Careers (1.5) (8 week course)**

Travel industry computer systems for employment search, application, reservation systems, training programs, home based communication and crew scheduling, with emphasis on SABRE and DEC application. One and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

**ALLIED HEALTH**

**Allied Health 010—Health Occupations (.5) (4 week course)**

Introduction to the allied health careers and programs at Orange Coast College including presentations of each allied health program. Required for admission to most allied health programs. This course may also be offered online. Offered on a credit-no credit basis only. Four hours.

**Allied Health 011AD—Health Careers Connection (.5) (4 week course)**

**Prerequisite:** Allied Health 010 or concurrent enrollment. Career job shadowing in health occupations. Areas available include imaging, diagnostic/therapeutic, patient service, physician, and biotechnology. Offered on a credit-no credit basis only. Five hours field experience.

**Allied Health 111—Medical Terminology (3) Recommended preparation:** Biology 221.

Development of medical vocabulary emphasizing the building of terms utilizing prefixes, combining forms and suffixes. Includes symptomatic, therapeutic, diagnostic and operative terms along with terms related to diagnostic tests. Students learn the meaning and spelling of medical terms and the application of these terms to comprehend medical record documents. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Allied Health 115—Patient Care (2.5) (8 week course)**

**Prerequisite:** Allied Health 010; non-native speakers must complete ESL 151AB (exemption based on assessment results).

**Corequisite:** Allied Health 111.

A pre-clinical preparation to be taken no more than six months prior to the first scheduled allied health clinical internship. An orientation to the clinical setting to include interpersonal communication, legal and ethical issues, an overview of health care finance, basic patient care techniques, universal precautions, cardiopulmonary resuscitation, emergency medical interventions, the psychological aspects of the ill and dying patient, and the psychological aspects of being employed as a health care professional. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Allied Health 116—Advanced Patient Care (2) (8 week course)**

**Prerequisite:** Allied Health 115.

Multi-skill preparation for the allied health professional including management communication skills, phlebotomy, with injection of contrast media, and basic electrocardiography. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Allied Health 120—Human Diseases (2)**

**Prerequisite:** Biology 221; Allied Health 111 recommended.

The study of disease processes and diseases affecting each body system. Includes etiology, pathophysiological mechanisms, methods of diagnosis, manifestations and treatment of each disease. Recent completion of human anatomy and physiology is recommended before attempting this class. Two hours. **Transfer Credit: CSU.**

**Allied Health 130—Applied Pharmacology (2)**

**Recommended preparation:** Biology 221.

Common drug categories, methods, and legal aspects of drug administration is emphasized and includes action, indication, hazards, metabolism and excretion. Calculation of drug dosages and solutions. Use of drugs in the treatment of various disease processes. Two hours. **Transfer Credit: CSU.**

## **Allied Health 199AD—Current Issues in Allied Health (.5) (1-8 week course)**

This course deals with current issues in the allied health profession. Topics vary. See class schedule. May be taken for grades or on a credit-no credit basis. One to nine hours. **Transfer Credit: CSU.**

## **Allied Health 280—Supervisory Management for Health Care Professionals (2)**

Procedures for developing personnel programs and desirable employer/employee relationships in health care facilities. Selection, placement, orientation, training, counseling, rating, promotion, and scheduling of personnel. Also includes basic budgeting techniques. Two hours. **Transfer Credit: CSU.**

## **AMERICAN STUDIES**

### **American Studies 100—Institutions (3)**

A one-semester survey of selected political, social, economic, and cultural institutions of the United States and California. Some topics discussed will include the role of the media in the U.S., 'American national character' and the American political party system. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## **ANATOMY**

*(See Biology 220, 221, 223, or 225)*

## **ANTHROPOLOGY**

### **Anthropology 100—Cultural Anthropology (3) (CAN ANTH 4)**

The analysis of social structure, family, kinship, belief, and rite. The determinants of culture and personality. The social analysis of three societies. The methods and perspectives of anthropology. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 100H—Honors Cultural Anthropology (3)**

The analysis of social structure, family, kinship, belief, and rite. The determinants of culture and personality. The social analysis of three societies. The methods and perspectives of anthropology. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 102—Native American (3)**

An introduction to the development of Native American (Indian) cultures prior to the introduction of European Civilization in the Western Hemisphere and the cultural conflicts generated by the European invasion and the position of Native American life in contemporary America. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 105—Anthropology of Nonverbal Behavior (3)**

An analysis and individual awareness of nonverbal behavior in human interaction with emphasis on western cultural patterns. Attention is given to the various levels or segments of nonverbal human interaction, including gesture, spatiality, body positions, and expression laughter. Foundations and developmental patterns of nonverbal dimensions are explored. Same as Sociology 105. Students completing Anthropology 105 may not receive credit for Sociology 105. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### **Anthropology 110—Comparative Cultures (3)**

An examination of the cultural similarities and differences that exist in the major areas of the world. Non-western societies will be compared and contrasted with one another and with western societies. Employees in multinational companies, general education students, and anthropology majors will benefit from this course. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 150—Multicultural Behavior (3)**

Multicultural approaches to cultural diversity including immigration policy, affirmative action, and bilingual debates. Intercultural comparisons including Native American, African American, Hispanic American, Asian American, and European American cultural traditions. Social science theories and methodologies for development of positive intercultural relationships. Same as Sociology 150. Students completing Anthropology 150 may not receive credit for Sociology 150. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 185—Physical (3) (CAN ANTH 2)**

As an introductory survey course, the class will cover three major areas in particular: 1) evolutionary theory, 2) the theories of man's origin and his evolution based upon comparative anatomy, biochemical studies and the fossil record, and 3) the origin and evolution of man's culture and social organizations as revealed by the archaeological record and biochemical variations in modern man, individual adaptations and growth and development studies. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 185L—Physical Anthropology Laboratory (1)**

**Prerequisite:** Anthropology 185 or concurrent enrollment. This course covers laboratory exercises on human genetics, comparative primate anatomy, morphological characteristics of hominid fossils, and techniques of forensic anthropology. May be taken for grades or on a credit-no credit basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

### **Anthropology 190—Introduction to Linguistics (3)**

Linguistic analysis and language structures from many areas of the world. Descriptive and historical linguistics. Relationships between language and culture. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 280—Introduction to Archaeology (3) (CAN ANTH 6)**

A study of the basic principles of archaeological research and cultural evolution based on technological change. Artifact types, site composition, and dating techniques are discussed as they relate to Paleolithic, Mesolithic, and Neolithic cultures in the Old and New World. The cultural evolution of humans is then traced using artifact assemblages as the key to understanding cultural growth. Three hours. **Transfer Credit: CSU; UC.**

### **Anthropology 282—Field Archaeology (3)**

**Recommended preparation:** Anthropology 280.

Introduction to the strategies and techniques required for the archaeological excavation of a prehistoric site. Site survey and excavation methodology, mapping, and recording procedures will be emphasized in a field environment. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

### **Anthropology 285—World Ethnology (3)**

A survey of primitive, peasant and contemporary cultures representing major world areas. Different levels of cultural development with emphasis on the interaction of environment, technology, social system, and culture history. The major theories of culture will be explored. Three hours. **Transfer Credit: CSU; UC.**

## **ARCHITECTURAL TECHNOLOGY**

### **Architectural Technology 105—Architectural Drawing and Design Visual 1 (2)**

This course is an introduction to architectural visualization techniques that will give students the elementary ability to explain a three-dimensional design solution using a two-dimensional medium. Subjects and techniques presented will include orthographic projection, paralines, title blocks, plan views, elevations, sections, shade, shadow, elementary perspective, and tonal values. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology 110—Introduction to Architecture (2)**

This introductory course explores the professional and academic aspects of architecture and related design and engineering fields, including their methodologies and practices. Licensing, education, history, practice, design, theory, and structures are lecture topics. Two hours. **Transfer Credit: CSU; UC.**

### **Architectural Technology 115—Architectural Drawing and Design Theory 1 (4)**

**Prerequisite:** Architectural Technology 105.

Beginning study of perceptual and visual phenomena as applied to both two- and three-dimensional design principles and architectural theory. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**Architectural Technology 180—Architectural Drafting and Construction Documents (4)**

A basic course focusing on delineation skills as applied to construction drawings for a single story, wood frame residence. Further emphasis is on architectural symbols and conventions, specifications, the State Building Code, products, materials, and equipment used in residential wood frame construction. Two hours lecture, six hours studio. **Transfer Credit: CSU.**

**Architectural Technology 185—Design Context and Systems (4)**

**Prerequisite:** Architectural Technology 180.  
This intermediate design course focuses on the environmental, cultural, and physical forces that affect architecture. Students will research and utilize design approaches and building components and systems that respond to human needs and the natural and built environments. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology 205—Architectural Drawing and Design Visual 2 (3)**

**Prerequisite:** Architectural Technology 105.  
This advanced course builds on a basic understanding of design communication and adds complexity and design intention to two- and three-dimensional visual design communication skills. Techniques include freehand sketching, graphic conventions, modeling, 2 pt. perspective, orthographic drawings, shade/shadow, color rendering, three-dimensional models, and graphic presentations. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**Architectural Technology 215—Architectural Drawing and Design Theory 2 (4)**

**Prerequisite:** Architectural Technology 115.  
This intermediate course deals with theories, principles, methods, and means pertaining to the creation of architectural space by manipulation of form, space, and light. Focus is on the consideration and communication of typological program elements, spatial organization and hierarchy, structure, and meaning as an expression of human, aesthetic, and environmental determinants. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**Architectural Technology 220—Building Materials and Systems (4)**

**Prerequisite:** Architectural Technology 180.  
The study of architectural materials and principles of building systems as typically applied in commercial and industrial building. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology 225—Land and Building Development (3)**

A general survey of land development principles and procedures used prior to the actual construction of structures. Site analysis and planning, mapping, regulatory controls, obtaining entitlements, grading, road and street designs, utility systems, principles of real property value, and project financing will be covered. Same as Construction Technology 225. Students completing Architectural Technology 225 may not receive credit for Construction Technology 225. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively. Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Architectural Technology 230—Architectural Drawing and Design Theory 3 (5)**

**Recommended preparation:** Architectural Technology 215.  
This advanced architectural design course deals with theories, principles, methods, and means pertaining to the creation of architectural space by manipulation of form, space, and light. Focus is on conceptual design and problem solving, proposing and challenging design criteria, communicating and editing the design, and portfolio development. Three hours lecture, seven hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology 250—Building Codes and Standards (2)**

Introduction to the codes and standards prevalent in California. Concentration is on State Title 24 Accessibility regulations, Americans With Disabilities Act regulations, the State Building Code, and local enforcement as applied to building design. Two hours. **Transfer Credit: CSU.**

**Architectural Technology 290—History of Architecture 1 (3)**

A study of the development of architecture from primitive shelters throughout the complex structure of the Early Baroque. Focuses on styles of architects who have made significant contributions. Emphasis and discussion on political, economic, and cultural influences in the evolution of architectural history. Three hours. **Transfer Credit: CSU; UC.**

**Architectural Technology 296—History of Architecture 2 (3)**

Study of the development of architecture from the late 17th century to the present. Focuses on the styles of architecture in various historical periods, highlighting architects who have made significant contributions. Special emphasis on the architecture of the 20th century and political, economical, technological, social, and cultural influences in the evolution of architectural styles. Three hours. **Transfer Credit: CSU; UC.**

**ART**

**Art 100—History and Appreciation of Western Art (3) (CAN ART 2)**

A survey of art from prehistoric to the Gothic periods emphasizing principles of history of art as demonstrated in artifacts found from each period that establish significant ideas about the conditions of each historical age. Required for art majors. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Art 100H—Honors History and Appreciation of Western Art (3)**

A survey of art from prehistoric to the Gothic periods emphasizing principles of history of art as revealed in artifacts found from each period that establish significant ideas about the conditions of each historical age. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Art 101—History and Appreciation of Western Art (3) (CAN ART 4)**

A survey of painting, sculpture, and architecture beginning with the Proto-Renaissance (Late Gothic) and concluding with Post Impressionism. The course will relate major developments in the arts to the historical and social events of the period. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Art 101H—Honors History and Appreciation of Western Art (3)**

A survey of painting, sculpture, and architecture beginning with the Proto-Renaissance (Late Gothic) and concluding with Post Impressionism. The course will relate major developments in the arts to the historical and social events of the period. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Art 102—Contemporary Art History (3)**

A survey of late modernism and contemporary art movements in American and international culture from 1945 to the present. Emphasis will be placed on the New York School, Minimalism, Conceptual and Performance Art, Pop Art, Neo-Expressionism, Installation Art, and Post Modern trends in contemporary expression. Recommended for all visual arts majors. Three hours. **Transfer Credit: CSU.**

**Art 103—History of Asian Art: China, Korea, Japan (3)**

A survey of the painting, sculpture, architecture, and minor arts of China, Korea, and Japan, emphasizing their relationship to the philosophy and religions of Asia. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Art 104—Art of India and Southeast Asia (3)**

Hindu, Buddhist, and Jain arts as expressed in architecture, art, and painting. Indian influence on the arts of Nepal, Tibet, Kashmir, Sri Lanka, Java, Cambodia, Thailand, and Burma. Religious and philosophical influence on the arts and architecture. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Art 107—Introduction to Art (3)**

An appreciation of art methods and materials presented in historical and contemporary context. Designed to develop both observational and hands-on experience in the creation of art emphasizing fundamental art ideas, terminology, methodology, and the relationship of art to society. Topics will include drawing, painting, sculpture, film arts, printmaking, and architecture. Gallery/museum visits are required. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Art 108—Women in Art (3)

Women artists and the image of women in art from the Paleolithic period to the present day. Art criticisms, the feminist art movement, and the status of contemporary women artists. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Art 109—Ancient Greek Art and Architecture (3)

A study of Ancient Greek art and architecture beginning with prehistory and ending with the Hellenistic period. This course will relate artistic styles and major developments with the social and political events of the period. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Art 110—Color and Design: Two-Dimensional (3) (CAN ART 14)

A basic course in the visual organization of the principles and elements of design. Selected fundamental concepts using line, color, mass, value, and texture in two-dimensional applications. Required for art majors and certificate programs. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 111—Color and Design: Three-Dimensional (3) (CAN ART 16)

**Prerequisite:** Art 110.

Explores the basic concepts of three-dimensional form in visual art and design. Studio practice using basic materials and tools. Required for art majors and recommended for certificate programs. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU; UC.**

## Art 112—Application of Color Theory (3) (CAN ART 22)

**Prerequisite:** Art 110.

Investigates the dimensions of color through the aspects of visual application of color theory. Emphasis will be structured around the development and articulation of sensory concepts. Recommended for art majors and certificate programs. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU; UC.**

## Art 116—Studio Wood Design (4)

A beginning level studio course focusing on various physical and visual constructs unique to woodworking. Wood and wood components are the primary materials utilized to format student ideas into concept-based physical and intellectual studies. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

## Art 118—Product Illustration 1 (2)

For the beginner through semi-professional levels of drawing skill. Principles of line, shade, shadow, highlight, reflection, color, materials and graphic presentation. Sketching and rendering using various media and papers. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Art 119—Product Illustration 2 (2)

**Prerequisite:** Art 118.

Continuation of Product Illustration 1 to include more detailed renderings. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See last page at the end of this section for a list of these limitations.

## Art 120—Freehand Drawing (3) (CAN ART 8)

The student will draw natural and artificial forms from observation using a variety of media on paper, apply visual devices that affect the illusion of three-dimensional space on a flat surface, and apply critical thought to affect justifiable interpretations of content and meaning in visual statements. Six hours studio. **Transfer Credit: CSU; UC.**

## Art 120H—Honors Freehand Drawing (3)

The student will draw natural and artificial forms from observation using a variety of media on paper, apply visual devices that affect the illusion of three-dimensional space on a flat surface, and apply critical thought to affect justifiable interpretations of content and meaning in visual statements. Six hours studio. **Transfer Credit: CSU; UC.**

## Art 121AD—Life Drawing (3) (CAN ART 24)

**Prerequisite:** Art 120.

Figure drawing from the nude model. The study of volumes, foreshortening, structure, anatomy, and composition of the human form. Required of art majors. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 122—Human Anatomy for Artists (3)

A drawing and study course using the human figure as a model. Emphasis will be on human anatomy and how it relates to drawing the figure. This course is recommended for art majors. Six hours non-lecture. **Transfer Credit: CSU; UC.**

## Art 125—Perspective Drawing (3)

Drawing of three-dimensional objects using perspective as a tool. Emphasis on fundamentals and different procedures used. Emphasizes methods which are directly related to the artist's needs including short-cuts. Recommended for art majors and certificate programs. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 130—Painting 1 (3) (CAN ART 10)

**Prerequisite:** Art 110 and 120.

Students will develop the basic craft of painting landscape, still life, and the figure using selected media. Students will apply and practice a creative approach to painting to achieve an understanding of color, space, form, and composition. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 131AC—Painting 2 (3)

**Prerequisite:** Art 130.

A continuation of Art 130 with emphasis on personal expression. Alternate painting mediums introduced. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 141—Sculpture 1 (3) (CAN ART 12)

Exploration of sculptural material and concepts, technical experiences may include modeling, casting and fabricating with sculptural media. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 142AD—Life Sculpture (3)

Exploration of figurative sculpture from the model emphasizing structure and expressive potential. Technical experiences may include armature building, clay modeling and hand-building, kiln firing, and the application of glazes and patinas. May be taken for grades or on a credit-no credit basis. Six hours non-lecture. **Transfer Credit: CSU; UC.**

## Art 143AD—Story Illustration Techniques (3)

**Prerequisite:** Art 121AD.

Principles of story illustration applied to various drawings and painting media. Creative and imaginative application of theories and techniques and accurate representation. Six hours lecture-studio. **Transfer Credit: CSU.**

## Art 145—Exhibition Design (Gallery) (3)

This course focuses on design problems related to the OCC gallery and museum exhibits. Studies include space planning, crowd flow, and the dynamics of thematic presentation based on curatorial and other criteria influencing exhibitions. Students will gain experience in assembling cases, mounts, lighting, and graphics. Recommended for design and visual presentation, interior design, art, architecture, and photography majors. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Art 147—Jewelry 1 (3) (CAN ART 26)

Application of the basic concepts of design related to two- and three-dimensional crafts. Projects in hand wrought jewelry fabrication (sterling silver, copper and brass), copper enameling and small three-dimensional wood construction. Six hours lecture-studio. **Transfer Credit: CSU.**

## Art 150—Ceramics 1 (3) (CAN ART 6)

Basic pottery forms. Handbuilding techniques, introduction to the sculptural and 2-dimensional use of clay. The course will explore traditional pottery forms and move toward the development of concepts based on the main directions of contemporary ceramics. Introduction to firing and glazing. Basic techniques in raku, earthenware, stoneware and porcelain. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 151AC—Ceramics 2 (3)

**Prerequisite:** Art 150.

Introduction to the potter's wheel including functional form combinations of thrown forms and other ceramic sculpture techniques. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

## Art 170—Printmaking 1 (3) (CAN ART 20)

Studio problems in relief and intaglio printing: monotypes, monoprints, collographs, lino cuts, woodcuts, engravings, and etchings. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

**Art 171AC—Printmaking 2 (3)**

**Prerequisite:** Art 170.

Continued studio problems in relief and intaglio processes, as well as monotypes and various combined processes and registration techniques. Emphasis on development of personal expression. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

**Art 175AB—Screen Process Printing (3)**

Theory and practice of screen process printing, construction of the screen, techniques of photo stencil making, color registration and printing on various surfaces pertinent to fine art and commercial application. Production of serigraphs, posters, greeting cards, textiles. Emphasis on execution of original designs. Six hours lecture-studio. **Transfer Credit: CSU.**

**Art 180—Professional Studies (2)**

**Prerequisite:** Art 110 or 120.

Exploration and identification of areas of employment and professional activity in art. Techniques of obtaining employment, such as the evaluation of art work and the construction of a portfolio of art samples. Emphasis on access to information through guest lecturers, films and field trips. Required reading of selected materials. Four hours lecture-studio. **Transfer Credit: CSU.**

**Art 195AD—World Art (1-3)**

A varied selection of national and international academic field studies. Opportunities to experience cities and their major artistic and cultural achievements, such as architecture, museums, sculpture, and other significant historical sites. The course may include field trips, lectures, reading and writing assignments, and special projects. May be taken for grades or on a credit-no credit basis. **Transfer Credit: CSU.**

**Art 202—Contemporary Art Theory (1) (8 week course)**

An in-depth theory and philosophic examination of contemporary art issues and movements to be presented in a group seminar environment to include lecture, slides, discussion, field trips to galleries and artist studios, as well as individual research and/or artwork. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

**Art 220AD—Figure Composition (3)**

**Prerequisite:** Art 121AD.

An advanced drawing and painting course. The primary focus is pictorial composition. Creative solutions to the posed model situations are emphasized. Design of the picture plane using traditional compositional devices will be taught. Examples from old master art reproductions and their art history will be an integral part of the class. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

**Art 235AD—Experimental Painting (3)**

**Prerequisite:** Art 110 and/or portfolio.

Exploration and presentation of painting using contemporary mixed media and materials in non-traditional contexts for the purpose of developing individual expressive directions. Experimentation with various painting supports and non-traditional media. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Art 236AD—Life Painting (3)**

**Prerequisite:** Art 121AD and 130.

A course in figure painting using the live model. Various painting media and analysis of light, shade, and color will be covered. May be taken for grades or on a credit-no credit basis. Six hours studio. **Transfer Credit: CSU; UC.**

**Art 241AC—Sculpture 2 (3)**

**Prerequisite:** Art 141.

Advanced study in the creative use of techniques and materials of sculpture with an emphasis on stone carving, mold making and casting, additive sculpture, and assemblage. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

**Art 243AD—Bronze Casting (3)**

Art bronze casting using the lost-wax method and sand casting pattern. Six hours lecture-studio. **Transfer Credit: CSU.**

**Art 245AC—Exhibition Design (3)**

**Prerequisite:** Art 145.

Continued work in gallery organization and design with emphasis in the use of the environment as a means of communication. Assignment of specific responsibility for specific areas of installation of professional and amateur exhibitions, including jury selection, gallery representative in fund raising roles. Students will "shadow" the gallery director in overall organization of exhibits. Two hours lecture, four hours studio. **Transfer Credit: CSU.**

**Art 247AC—Jewelry 2 (3)**

**Prerequisite:** Art 147.

A continuation of Jewelry 1. Further development of hand wrought jewelry fabrication techniques to include explorations in casting, hollow form construction, linking device and lapidary. Emphasis will also be on individual student's field of interest. Six hours lecture-studio. **Transfer Credit: CSU.**

**Art 263AD—Painting in Watercolor (3)**

**Prerequisite:** Art 110.

Materials, methods, composition, and color for both still life and landscape. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

**Art 269—Cartooning 1 (3)**

A basic course in cartooning for students interested in learning how to cartoon without any previous formal art training. Six hours lecture-studio. **Transfer Credit: CSU; UC.**

**Art 270—Cartooning 2 (3)**

**Prerequisite:** Art 269.

A continuation of Cartooning 1 with an emphasis on developing drawing skills, story idea interpretation, and a professional approach to cartooning. Six hours lecture-studio. **Transfer Credit: CSU.**

**Art 286AD—Book Arts (2)**

An exploration into historical and modern approaches in the making, construction and binding of artists' books. Preliminary exercise and experiments with different types of bindings will lead the student to a final project in book form. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**ASTRONOMY**

**Astronomy 100—Elementary Astronomy (3)**

Introduction to the origin, evolution and structure of the solar system, stars, galaxies and the universe. Historical milestones in the science of astronomy from ancient times to the space age. Consideration of current controversies in astronomy and the future of astronomical research and space exploration. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Astronomy 100H—Honors Elementary Astronomy (3)**

Introduction to the origin, evolution, and structure of the solar system, stars, galaxies, and the universe. Historical milestones in the science of astronomy from ancient times to the space age. Consideration of current controversies in astronomy and the future of astronomical research and space exploration. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Astronomy 100L—Elementary Astronomy Laboratory (1)**

**Prerequisite:** Astronomy 100

**Recommended preparation:** Math 010.

A beginning laboratory course designed for non-science majors. It will provide practical experience with the scientific method through outdoor astronomical observations and indoor analysis of experimental data. Same as Natural Science 100LA. Students completing Astronomy 100L may not receive credit for Natural Science 100LA. May be taken for grades or on a credit-no credit basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Astronomy 101—Planetary Astronomy (3)**

An introduction to the current solar system family surveying each of the individual constituents. A comparative study will be made of the nine planets and their satellites and a detailed look at comets, asteroids and interplanetary debris will be undertaken. An overview of the formation, evolution and structure of the solar nebula will be presented. Current topics on interplanetary missions, other planetary system candidates, and extraterrestrial life will be discussed. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Astronomy 102—Stellar Astronomy (3)**

A detailed study of the formation, structure, and evolution of the sun and stars, including an overview of binary systems, variable stars, Supernovae Types I and II, white dwarfs, neutron stars, black holes, and other stellar phenomena. A survey of particle physics and special and general relativity will also be included. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Astronomy 103—Cosmology (3)

An introduction to the origin and evolution of the universe with emphasis on the major cosmological models. Galaxy types, gravitational lensing, non-luminous matter, and the cosmological constant will be studied. An overview of particle physics and special and general relativity will be included. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Astronomy 120—Special Topics in Modern Astronomy (3)

**Prerequisite:** Astronomy 100.

Review of major unanswered questions of nature and the universe with emphasis on current astrophysical research. Will provide practical experience in using the scientific method and available evidence to formulate one's own opinions regarding the answers to these questions. Discussions will include the theories of relativity and the possibility of extraterrestrial life, as well as the impact of modern space science on the environment, philosophy, society and the destiny of humanity. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## AVIATION MAINTENANCE TECHNOLOGY

*(Formerly Aviation Technology)*

### Aviation Maintenance Technology 140—Helicopter Theory and Operations (3)

Rotary wing aircraft development, technology, construction, and FAA requirements for operation and maintenance. Survey of helicopter industry. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 150—General Maintenance Records (4) (8 week course)

This course emphasizes mechanic's privileges and limitations and practical experience in inspections, interpretation of technical data, non-destructive testing, and precision measurement. Also, ground operation, servicing of aircraft, and completion of maintenance forms and records will be covered. Four hours lecture, ten hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 151—General Electricity (3) (8 week course)

Fundamental theory of basic electricity, including Ohms Law series, parallel, and series-parallel circuits, and ac/dc circuits. Practical experience in calculating and troubleshooting aircraft electrical circuits. Theory of operation, inspection, and servicing of aircraft batteries. Four hours lecture, eight hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 152—General Airframe & Powerplant Fuel Systems (2) (8 week course)

Theory of fuel systems and lines and fittings. Practical experience in repair, check, service, overhaul, testing, and troubleshooting of fuel systems and system component parts. Two hours lecture, eight hours laboratory. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Aviation Maintenance Technology 153—General Materials, Processes & Welding (3) (8 week course)

Theory of materials used in aircraft, processes of inspection, cleaning of parts, hardware identification, and aircraft welding. Practical experience in hardware selection, installation, material selection, cleaning and corrosion control, and aircraft welding. Three hours lecture, ten and one-half hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 154—General Weight & Balance, Math & Physics (3)

Basic math. Theory and practical experience in a variety of aircraft math, physics, weight and balance calculations, and varied problems. Practical experience in weight and balance of aircraft. Three hours lecture, one-half hour laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 155—General Blueprint Reading & Drafting (2) (4 week course)

Fundamental theory of aviation blueprints and drafting. Practical experience in blueprint reading, drawing, sketches of repairs, alterations, schematics, and varied uses of graphs and charts. 6.75 hours lecture, 6.75 hours non-lecture. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 160—Airframe & Powerplant Electricity (6)

**Recommended preparation:** Aviation Maintenance Technology 151.

Fundamental theory relating to aircraft electrical systems, ice and rain, and fire protection systems. Practical experience in disassembly, repair, overhaul, inspection, testing of electrical components and systems. Four hours lecture, eight hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 161—Airframe Sheet Metal & Composite Structural Repair (5.5)

**Recommended preparation:** Aviation Maintenance Technology 153.

Fundamental theory relating to aircraft structures. Practical experience in sheet metal, composites, wood, riveting, fabric, inspection, and painting. Three hours lecture, eight hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 162—Airframe Assembly & Rigging, Pneumatics & Environmental Control Systems (3)

**Recommended preparation:** Aviation Maintenance Technology 153.

Fundamental theory of assembly, cabin control systems, and rigging. Practical experience in rigging, assembly, disassembly, repair, overhaul, testing, inspection, and operation of component parts of the cabin control systems. Two hours lecture, four and one-half hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 163—Airframe Hydraulics and Landing Gear (4.5)

**Recommended preparation:** Aviation Maintenance Technology 150 and 152.

Fundamental theory of hydraulic, pneumatic, and landing gear systems. Practical experience in disassembly, repair, overhaul, test, inspection, and operation of component parts. Two hours lecture, seven hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 170—Powerplant Reciprocating Engines (6)

**Recommended preparation:** Aviation Maintenance Technology 150 and 153.

Fundamental theory of aircraft reciprocating engines. Practical experience in overhauling, repair, assembly, testing, and troubleshooting various powerplants. Three hours lecture, nine and one-half hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 171—Powerplant Fuel Metering, Exhaust & Induction Systems (4)

**Recommended preparation:** Aviation Maintenance Technology 152.

Fundamental theory of aircraft reciprocating engine fuel metering, induction, cooling, and exhaust systems. Practical experience in overhauling, repairing, testing, and troubleshooting a variety of different systems and components. Two and one-half hours lecture, five hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 172—Powerplant Propeller and Lubricating Systems (4)

**Recommended preparation:** Aviation Maintenance Technology 170.

Fundamental theory of propellers and lubrication system components. Practical experience in overhauling, repairing, testing, and troubleshooting different types of systems and components. Two and one-half hours lecture, six hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 173—Powerplant Gas Turbine Engines (6)

**Recommended preparation:** Aviation Maintenance Technology 150 and 153.

Fundamental theory and overhaul of turbine engines, starting systems, and system components. Practical experience in disassembly, repair, overhaul, inspection, and testing of turbine engines and components. Three and one-half hours lecture, ten hours laboratory. **Transfer Credit: CSU.**

### Aviation Maintenance Technology 174—Powerplant Ignition Systems (2.5) (4 week course)

**Recommended preparation:** Aviation Maintenance Technology 151.

Fundamental theory of ignition systems and practical experience in disassembly, repair, overhaul, inspection, and testing of ignition components. 6 hours lecture, 15 hours laboratory. **Transfer Credit: CSU.**

**Aviation Maintenance Technology 180—Airframe and Powerplant Instrumentation (2.5) (8 week course)**

A survey and limited practical experience of basic instrumentation systems used in private, corporate, and commercial aircraft. Included is aircraft nomenclature, acronyms, and use of computer-based training systems. Three and one-half hours lecture, five hours laboratory. **Transfer Credit: CSU.**

**Aviation Maintenance Technology 181—Airframe Communication and Navigation Systems (2) (8 week course)**

**Recommended preparation:** Aviation Maintenance Technology 180.

A survey and limited practical experience of basic avionics systems used in navigational, communication, and flight management systems as applied to private, corporate, and commercial aircraft. Included is aircraft nomenclature, acronyms, and use of computer-based training systems. Three hours lecture, three and one-half hours laboratory. **Transfer Credit: CSU.**

**Aviation Maintenance Technology 182—Aircraft Avionics Circuits (5)**

**Prerequisite:** Aviation Maintenance Technology 151.

Semiconductor and digital logic gate fundamentals including bread boarding of linear and analog and digital circuits. Analysis and application of amplifiers, oscillators, and superheterodyne receivers. Test bench procedures utilizing diagnostic equipment and fault finding logic tree techniques to a systems level. Four hours lecture, four hours laboratory. **Transfer Credit: CSU.**

**Aviation Maintenance Technology 184—Aircraft Avionics Systems (5.5)**

**Recommended preparation:** Aviation Maintenance Technology 182.

A course in aircraft radio navigational and communication systems. Bench test, installation and ramp test of transmitter and receiver systems and their operating principles. Systems include VHF comm, VOR, ILS, and Transponder. Students are required to bring hand tools. Four hours lecture, five and one-half hours laboratory. **Transfer Credit: CSU.**

**Aviation Maintenance Technology 188—G.R.O.L. and Avionics Rules and Regulations (1.5) (8 week course)**

Federal Communication Commission General Radiotelephone Operations License (G.R.O.L.) exam preparation. Federal Aviation Administration rules and regulations as they apply to maintenance of avionics systems. Three hours. **Transfer Credit: CSU.**

**Aviation Maintenance Technology 290—Helicopter Maintenance (4)**

Maintenance of helicopters, helicopter rotor systems, power trains, unique system features, instrumentation, and design construction. Practical experience in dismantling, inspection, repair, assembly, testing, and troubleshooting a variety of helicopters and system components. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**AVIATION PILOT TRAINING**

*(Formerly Aviation and Space)*

**Aviation Pilot Training 125—Air Traffic Control For Pilots (1.5) (8 week course)**

**Prerequisite:** Aviation Pilot Training 130.

Principles of air traffic control for piloting aircraft. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 130—Private Pilot Aviation Ground School (5)**

Introductory course for commercial pilot program. Preparation for private pilot's written examination. Navigation, weather, aircraft and engines and federal aviation regulations will be discussed. Five hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 132—Aviation—Navigation (3)**

**Recommended preparation:** Aviation Pilot Training 130.

Intermediate air navigation (not celestial). Meets navigation requirements for commercial and airline transport pilots. Navigation instruments required. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 133—Aviation—Meteorology (3)**

Meets weather instructional needs for commercial or instrument license and promotes flight safety. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 134—Aviation Instrument Ground School (3)**

**Recommended preparation:** Aviation Pilot Training 130.

Preparation for instrument pilot written examination; refresher for rated instrument pilot. Course is designed for pilots who have 80 hours flight time. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 135—Aircraft Engines (3)**

**Prerequisite:** Aviation Pilot Training 130.

An advanced course for pilots in aircraft engine operation and includes turbo-supercharging, ignition, carburetion, injection, accessories and engine performance charts. One of the courses fulfilling the requirements in preparation for the FAA commercial pilot's examination. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 136—Soaring-Glider Ground School (3)**

Preparation for private pilot's (glider) certificate: basic glider aerodynamics, instruments, oxygen and radio operation, weather, navigation, FAA regulations, soaring, and basic cross country soaring ground school. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 137—Aircraft Preventive Maintenance for Pilots (1.5) (8 week course)**

FAA rules related to pilot performed maintenance: electrical, fuel, hydraulic systems, airframe and powerplant. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 138—Aerodynamics (3)**

**Prerequisite:** Aviation Pilot Training 130.

An advanced course for pilots in aircraft aerodynamics and performance. Preparation for the commercial pilot's examination. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 139—Commercial Pilot Aviation Ground School (3)**

**Recommended preparation:** Aviation Pilot Training 130, 132, and 133.

Refresher for experienced pilots and preparation for commercial exam. Meteorology, FAA regulations, navigation, radio navigation, flight planning, and communication procedures are covered. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 140—Flight Instructor Ground School (3)**

**Prerequisite:** Aviation Pilot Training 139.

Preparation for the flight instructor written examination. Fundamentals of teaching and learning, and ground and flight instruction procedures. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 141AD—Flight Simulator Course (3)**

**Prerequisite:** Aviation Pilot Training 134 or concurrent enrollment.

Preparation for Federal Aviation Agency instrument flight test and for instrument rated pilots who want to maintain Instrument Flight Rating (IFR) proficiency. Course is designed for pilots who have 80 hours flight time and/or have completed the FAA Private Pilot written examination. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Aviation Pilot Training 145—Turbine Aircraft Systems (3)**

**Recommended preparation:** Aviation Pilot Training 130 and 134.

Advanced course for pilots concentrating on turbine aircraft systems such as those found on the Boeing 737-200 and Cessna Citation. Information can be used in preparation for type rating training or flight engineer written exam. Course is designed for pilots who have 200 hours flight time. Three hours. **Transfer Credit: CSU.**

**Aviation Pilot Training 180—Basic Air Transportation (3)**

Broad overview of the aerospace industry, the history of flight, and history of commercial air transportation. Three hours. **Transfer Credit: CSU.**

## Aviation Pilot Training 192—Human Factors and Cockpit Resource Management (1.5) (8 week course)

Introducing the new or experienced pilot to Cockpit Resource Management for single and multi-crew cockpits. Human factors research (C/L/R) conducted by United Airlines and accident investigations and their recommendations on reducing “pilot error” will be examined along with many practical methodologies to make single pilot VFR and IFR safer and more efficient. Three hours. **Transfer Credit: CSU.**

## Aviation Pilot Training 195—Astronautics and Spacecraft Design (3)

An introduction to astronautics and spacecraft design. This course will concentrate on the technology used in the space shuttle, International Space Station, and unmanned spacecraft. Topics include orbital mechanics, propulsion systems, GNS, shuttle orbiter systems, mission operations, avionics, GPS, and military space systems. Three hours. **Transfer Credit: CSU.**

## Aviation Pilot Training 196—Space Station (1.5) (8 week course)

An in-depth evaluation of the elements of the proposed U.S. space station. The design process will be stressed focusing on Phase C and D development. The various systems will be examined including environmental life support, propulsion, electrical, robotic servicers, OMV, unmanned platforms, and module configuration. Three hours. **Transfer Credit: CSU.**

## Aviation Pilot Training 197—Advanced Space Systems (1.5) (8 week course)

An advanced course exploring current projects in NASA, DoD, and private aerospace systems. Topics will include elements and infrastructure of the Strategic Defense Initiative; space platforms for surveillance, communications, navigation, data transfer, manufacturing, and the National Aerospace Plane and other DARPA sponsored projects. Current leading edge technologies will be incorporated into the class including new commercial and private projects. Three hours. **Transfer Credit: CSU.**

## BACTERIOLOGY

(See *Biology 210*)

## BIOLOGY

(See also *Ecology*)

### Biology 100—Principles of Biology (4)

A general study of life processes with emphasis on biological molecules, cells, heredity, evolution and diversity of life. Suitable as a general education elective for the non-science major. This course may also be offered online. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

### Biology 114—Basic Microbiology (2) (8 week course)

Introduction to history, theory, and techniques of microbiology as applied to microbial nutrition, disease, immunity, control and the environment. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated “UC”. Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Biology 125—Human Biology (3)

A transferable general education biology course for students not majoring in the life sciences. Emphasis on relationships of biology to human beings with particular attention to the most current work on molecular genetics, heredity, fertility, genetic engineering, the immune system, AIDS, cancer and drug effects on the nervous system. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Biology 140—The Biology of Drugs (1) (8 week course)

A survey of psychoactive recreational drugs emphasizing history, biological effects upon the human body, uses and origins. Will not deal with legal, moral or social implications. Two hours. **Transfer Credit: CSU.**

### Biology 160—Biology of Sexually Transmitted Diseases (2) (8 week course)

Designed to meet community needs and needs of those seeking transfer credit in a non-lab biology course in anatomy, physiology and immunology of sexually transmitted diseases. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

### Biology 181—Cell and Molecular Biology (4) (CAN BIOL 2)

**Prerequisite:** Chemistry 130 with a grade of ‘C’ or better. Non-native speaking students must be eligible to enter ESL 131AB and 135AB.

This course is designed for the major in the biological sciences and the pre-health profession major. Emphasis is on the central concepts of biology, including biochemistry, cell biology, cell physiology, membrane dynamics, molecular genetics, classical genetics, virology, biotechnology, and immunology. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

### Biology 181H—Honors Cell and Molecular Biology (4)

**Prerequisite:** Chemistry 130 with a grade of ‘C’ or better or placement in Chemistry 180 based on chemistry assessment; non-native English speaking students must be eligible to enter English as a Second Language 131AB or 135AB.

This course is designed for the biological sciences and pre-health profession majors. Emphasis on central concepts of biology, including biochemistry, cell biology, cell physiology, membrane dynamics, molecular genetics, classical genetics, virology, biotechnology, and immunology. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

### Biology 182—Zoology (3) (CAN BIOL 4)

Includes the basic aspects of phylogeny, morphology, physiology and behavior of vertebrate and invertebrate animals. Emphasizes comparing the variety of mechanisms animals have evolved to solve common biological problems. Three hours. **Transfer Credit: CSU; UC.**

### Biology 182L—Zoology Lab (1) (CAN BIOL 4)

**Prerequisite:** Biology 182, or concurrent enrollment.

A laboratory course emphasizing animal phylogeny, anatomy, and physiology using representative types. One-half hour lecture, two and one-half hours laboratory. **Transfer Credit: CSU; UC.**

### Biology 183—Botany (3) (CAN BIOL 6)

Includes the dynamics of plants and their processes with particular emphasis on the structure and function of living plants. Three hours. **Transfer Credit: CSU; UC.**

### Biology 183L—Botany Lab (1) (CAN BIOL 6)

**Prerequisite:** Biology 183, or concurrent enrollment.

A course in the dynamics of plants and their processes with particular emphasis on the structure and function of living things. Three hours laboratory. **Transfer Credit: CSU; UC.**

### Biology 185—Diversity of Organisms (5)

**Prerequisite:** Biology 181 or 181H with a grade of ‘C’ or better.

An introduction to the biology of all major groups of living organisms, including eubacteria, archaeobacteria, protists, fungi, plants, and animals. This course will focus on the physiological approaches organisms use to solve common problems. The effect different environments and ecological roles have on these solutions is emphasized, as are the taxonomy, evolutionary relationships, and basic anatomical structures of the organisms. Four hours lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

### Biology 198AB—Exploration of Careers in Biology (1)

**Recommended preparation:** Biology 181 or Marine Science 100 with Marine Science 100L.

An introduction to the range of biological career options, intended primarily for biology majors. Students will interact with professionals from a diversity of biological fields and will explore the steps required to reach various career goals. This course will also include a biological seminar series, featuring regularly-scheduled scientific talks by active biological researchers. While medically-related careers will be discussed, they will not be the primary focus. May be taken for grades or on a credit-no credit basis. One hour. **Transfer Credit: CSU.**

### Biology 199—Special Topics in Biotechnology (1)

A weekly seminar series featuring speakers from universities and industry. The seminars will focus on current biotechnology topics. Offered on a credit-no credit basis only. One hour seminar. **Transfer Credit: CSU.**

**Biology 210—General Microbiology (5) (CAN BIOL 14)**

Fundamentals of bacteriology, mycology, protozoology, and virology. Includes food, water and medical microbiology, factors in resistance, infection, and disease. Human normal flora and the immune response are included. Microbial ecology, genetics, and bioenergetics are covered. Recommended for biological science majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

**Biology 211—Food and Microorganisms (2) (8 week course)**

**Prerequisite:** Biology 114 or 210.  
Role of microorganisms in the production and spoilage of food; food borne illnesses. May be taken for grades or on a credit-no-credit basis. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**Biology 220—General Human Anatomy (5) (CAN BIOL 10)**

Introduction to the structure and design of the human body. Includes structural components and body system interactions. Students will participate in the laboratory. Appropriate for students interested in human anatomy. Satisfies requirements for nursing, physical therapy and physical education majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

**Biology 220H—Honors General Human Anatomy (5)**

Introduction to the structure and design of the human body. Includes structural components and body system interactions. Students will participate in the laboratory. Appropriate for students interested in human anatomy. Satisfies requirements for nursing, physical therapy, and physical education majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

**Biology 221—Anatomy-Physiology (4)**

Anatomy and physiology as a combined discipline. This course may also be offered online. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

**Biology 223—Sectional Anatomy (4)**

**Prerequisite:** Biology 221.  
A study of the structures of the human body in serial sections. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Biology 225—Introduction to Physiology (5) (CAN BIOL 12)**

**Prerequisite:** Biology 220 and Chemistry 110.  
Presents the biological functions of the human body. Basic concepts and practical applications are stressed. Laboratory participation is required. Meets requirements for pre-nursing, physical therapy and physical education majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

**Biology 225H—Honors Introduction to Physiology (5)**

**Prerequisite:** Biology 220 or 220H and Chemistry 110.  
Presents the biological functions of the human body. Basic concepts and practical applications are emphasized. Laboratory participation is required. Meets requirements for pre-nursing, physical therapy, and physical education majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively. Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Biology 226—Advanced Sectional Anatomy (3)**

**Prerequisite:** Biology 221 and 223.  
An in-depth study of specific areas of the human body in serial sections. Designed for Diagnostic Medical Sonography and Radiologic Technology. Emphasis is on structures observable on ultrasound scans. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Biology 280—Evolutionary Ecology (4)**

**Prerequisite:** Biology 181.  
For majors in the biological sciences. Evolutionary and ecological principles and their relevance at several levels of organization. Includes principles governing classification of life, principles of evolution, conditions for life, adaptations to the environment, analysis of ecological niches, population, and community/ecosystem ecology from an evolutionary viewpoint. 3.75 hours lecture, 2.25 hours lab. **Transfer Credit: CSU; UC.**

**Biology 281—Molecular Biology 1: Biochemistry (2) (8 week course)**

**Prerequisite:** Biology 181 and Chemistry 220 and concurrent enrollment in Chemistry 225.  
An introduction to the chemistry of biology. This course is designed to satisfy transfer requirements for biology majors. Four hours. **Transfer Credit: CSU; UC.**

**Biology 281H—Honors Molecular Biology 1: Biochemistry (2) (8 week course)**

**Prerequisite:** Biology 181 and Chemistry 220 and concurrent enrollment in Chemistry 225.  
An introduction to the chemistry of biology. Four hours. **Transfer Credit: CSU; UC.**

**Biology 281L—Protein Chemistry Laboratory (1)**

**Prerequisite:** Biology 281 or 281H or concurrent enrollment.  
This laboratory course will focus on experimental methods involving the purification and analysis of protein. The students will gain hands-on experience with spectrophotometry, enzyme purification and kinetics, ion exchange, affinity, and gel filtration chromatography, SDS-Polyacrylamide electrophoresis, and Western blot analysis. Three hours laboratory. **Transfer Credit: UC.**

**Biology 282—Molecular Biology 2: Molecular Biology (2) (8 week course)**

**Prerequisite:** Biology 281.  
An introduction to molecular biology emphasizing gene structure and function. This course is designed to satisfy transfer requirements for biology majors. Four hours. **Transfer Credit: CSU; UC.**

**Biology 282H—Honors Molecular Biology 2: Molecular Biology (2) (8 week course)**

**Prerequisite:** Biology 281 or 281H.  
An introduction to molecular biology emphasizing gene structure and function. Four hours. **Transfer Credit: CSU; UC.**

**Biology 283—Genetics (4)**

**Prerequisite:** Biology 181 or 181H with a grade of 'C' or better.  
**Corequisite:** Chemistry 180.  
This course covers the principles of Mendelian inheritance, gene transmission in prokaryotes and eukaryotes, recombination and mutation, gene regulation, replication, and expression, cell division, and biochemical genetics. Emphasis is placed on problem solving. Four hours. **Transfer Credit: CSU; UC.**

**BROADCASTING ARTS**

**Broadcasting Arts 105—Broadcast Journalism (3)**

An overview of television news, broadcast production, and writing. Practical in studio experience with on-air news reporting and on-camera interview techniques. Three hours. **Transfer Credit: CSU.**

**Broadcasting Arts 202—Agents, Actors, and Writers (1.5) (8 week course)**

Introduction to the business relationship between an agent and actor, performer, or writer. The course will include preparation of a promotional portfolio, resume, contract, and the interview. Three hours. **Transfer Credit: CSU.**

**BUSINESS**

*(For Business Mathematics see Business 125)*

**Business 100—Introduction to Business (3)**

A survey of the many dimensions of business with a focus on careers: organization, management, marketing, legal aspects, international business, business climate, financial operations, the banking system, and investments. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

**Business 100H—Honors Introduction to Business (3)**

A survey of the many dimensions of business with a focus on careers: organization, management, marketing, legal aspects, international business, business climate, financial operations, the banking system, and investments. Three hours. **Transfer Credit: CSU; UC.**

**Business 105—Introduction to Law (3)**

A study of the American legal system beginning with a historical overview and then moving through the courts system, the process of legislation, civil versus criminal issues, torts and contracts, and related business and property law. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Business 107—MS Windows (1) (4 week course)

This course develops skills in using the Microsoft Windows operating system. Topics include configuring the desktop to meet individual needs and installing and using other software and hardware designed for MS Windows. Also, students will be taught the concepts of file and folder management and the use of control panel to customize the computer system. Same as CIS 107. Students completing Business 107 may not receive credit for CIS 107. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Business 110—Business Law (3) (CAN BUS 12)

This course focuses on the legal and regulatory environment of business and management, including the legal system and methods of resolving disputes. Examines the court system, trials and appeals, ethics, the Constitution, crimes and torts, contracts, product liability, employment, antitrust, and international perspectives. Case studies. Three hours. **Transfer Credit: CSU; UC.**

## Business 117—International Business Law (3)

Examines the legal aspects of conducting business with organizations based in other countries. Includes business negotiations, contracts, documentation and financial transactions. Also includes international commercial dispute resolution, licensing, joint ventures and intellectual property rights. Techniques for compliance with U.S. laws concerning international business are featured. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Business 118—Introduction to International Business (3)

Provides an overview of international business. Explores cultural, political, economic, systemic, legal-regulatory environments of selected countries and how they affect firms' international business activities. Special emphasis is given to business practices and comparative cultural topics. Three hours. **Transfer Credit: CSU.**

## Business 119—Applied International Business (3)

**Prerequisite:** Business 118.

Integrates the knowledge, skills, and abilities learned in the International Business Program. Special emphasis is given to current international business cases and topics. The cases and concepts are drawn from the major functional areas of international business. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Business 120—Personal Financial Success (3)

Personal financial planning addressing the fundamentals of career planning, budgeting, investments, housing, insurance, taxation, estate planning, retirement planning, consumer credit, and spending. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Business 125—Business Mathematics (3)

Mathematics as applied to business problems, such as interest, mortgages, consumer borrowing, annuities, installment buying, taxation, etc. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Business 126—Introduction to E-Commerce (2) (8 week course)

**Recommended preparation:** Computer Information Systems 122.

This course introduces the concept of e-business models, including those of successful online businesses. Students will design, implement, and maintain a secure web-based business that accepts electronic orders and payments. Same as Computer Information Systems 126. Students completing Business 126 may not receive credit for CIS 126. May be taken for credit or on a credit-no credit basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

## Business 133—PowerPoint (1) (4 week course)

This course demonstrates how proven, effective presentation techniques can blend with the technology of computer-generated graphics to create dynamic, colorful, and exciting multimedia presentations. Prepares students to take the Microsoft Office Specialist (MOS) Certification exam. Same as Computer Information Systems 133. Students completing Business 133 may not receive credit for CIS 133. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Business 134—Excel 1 (2) (8 week course)

Topics include spreadsheet concepts, model building, formula development, formula functions, and database functions. Students will create graphs and keyboard macros. Prepares students to take the Microsoft Office Specialist (MOS) Certification exam. Same as Computer Information Systems 134. Students completing Business 134 may not receive credit for CIS 134. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Business 138—Business English (3)

Principles of editing written communication applicable to business. Emphasis on fundamentals of grammar and sentence structure. Recommended for all business majors. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Business 139—Business Communication (3)

**Prerequisite:** English 100 with grade of 'C' or better.

Designed to develop skills in applying, planning, writing, and verbalizing techniques essential to effective communication in business while emphasizing opportunities and responsibilities of business communicators. Critical and analytical thinking will be an essential component of all assignments, as will the current need for an awareness of the global business environment. Students will need a fundamental knowledge of English and the mechanics of writing. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

## Business 140—Public Relations (3)

**Recommended preparation:** English 100.

Introduction to the basic principles, components, and techniques of effective public relations. Topics include publicity and promotion, advertising, media and community relations, and approaches to problem solving. Same as Mass Communications 140. Students completing Business 140 may not receive credit for Mass Communications 140. Three hours. **Transfer Credit: CSU.**

## Business 200—Business Finance (3)

**Prerequisite:** Accounting 101.

Provides students with the fundamentals of financial management. The course addresses financial organizations, financial analysis and planning, working capital, the budgeting process, sources of financing, mergers and acquisitions, and cash flow analysis. Three hours. **Transfer Credit: CSU.**

## Business 210—Securities Investment (3)

The basic concepts of investing in stocks and bonds with emphasis on market mechanics, types of orders, role of market professionals, margin accounts, selling short, commissions, and choosing a broker. Comprehensive study of approaches to price patterns, value investing, and the development of a rational investment philosophy. Prepares students for Business 212, Practical Investment Management. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Business 212—Practical Investment Management (3)

Modern stock and bond portfolio management practices and techniques. Focus is on risk management strategies, ethical issues, and industry standards as they relate to conflicts of interest, performance measurement, and presentation of results. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Business 234—Excel 2 (2) (8 week course)

**Recommended preparation:** Business 134 or Computer Information Systems 134.

Students will create templates and macros using Visual Basic for Applications to automate Excel tasks, formula auditing, data validation, complex problem solving, importing data, routing changes, PivotCharts, PivotTables, and trendlines. Same as Computer Information Systems 234. Students completing Business 234 may not receive credit for Computer Information Systems 234. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Business 239—Professional Communication (3)

Designed for persons wanting communication skills for professional positions, including marketing, supervisory, and management. Study of communication functions, choices, and roles within work settings. Practice in routine information exchange, oral reporting, negotiating conflict, persuasive speaking, and E-communication. Focuses on verbal, nonverbal, and writing skills necessary to communicate successfully in one-on-one, small- and large-group settings. Same as Management 239. Students completing Business 239 may not receive credit for Management 239. Three hours. **Transfer Credit: CSU.**

**Business 240—Small Business Ownership (3)**

Introduction to small business ownership and management. Starting/buying a business, legal requirements, financing, franchising, marketing and business plans, taxes, cash flow, pricing, advertising, site location, inventory control, and managing people are the topics. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**CARDIOVASCULAR TECHNOLOGY**

**Cardiovascular Technology 100—Introduction to Electrocardiography (2)**

**Prerequisite:** Biology 221.

Electrocardiographic interpretation and testing procedures for the ECG technician. Includes anatomy and electrophysiology of the cardiac conduction system; basic cardiac arrhythmias, including sinus, atrial, junctional, and ventricular arrhythmias and heart blocks. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Cardiovascular Technology 130—Introduction to Invasive Cardiology (3)**

**Prerequisite:** Cardiovascular Technology 160.

**Corequisite:** Cardiovascular Technology 150.

Introduction to the concepts of cardiac catheterization primarily for diagnosis of coronary artery disease. Includes hemodynamics, cardiovascular radiologic safety, aseptic and sterile field maintenance, pressure monitoring equipment, catheters, and contrast used for catheterization. Catheterization techniques, drug pharmacology used in the procedures and complications of cardiac catheterization. Three hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 150—Advanced Electrocardiography (2)**

**Prerequisite:** Cardiovascular Technology 100.

Advanced procedures in electrocardiographic testing including stress testing, Holter monitoring and pacemakers. Advanced arrhythmias including ventricular conduction disturbances, effects of drugs, electrolyte imbalances, myocardial infarction and cardiac pharmacology. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Cardiovascular Technology 160—Cardiac Anatomy/Pathophysiology (3)**

**Prerequisite:** Allied Health 111, or concurrent enrollment, and Biology 221.

Cardiac anatomy, physiology, and pathology. Course includes cardiovascular structures, hemodynamics, cardiac output and blood pressure, coronary artery disease and myocardial infarction, valvular diseases, infectious diseases, cardiac tumors and myopathies and congenital heart disease. Three hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 170—ECG Clinical Experience (3)**

**Prerequisite:** Allied Health 115 and Cardiovascular Technology 160.

**Corequisite:** Cardiovascular Technology 150.

Practice within a health care facility in areas of routine ECG testing, stress testing, monitor technician, Holter monitoring, and pacemaker evaluation. Offered on a credit-no credit basis only. One hour lecture, sixteen hours clinical/laboratory. **Transfer Credit: CSU.**

**Cardiovascular Technology 200—Introduction to Echocardiography (3)**

**Prerequisite:** Cardiovascular Technology 160.

**Corequisite:** Cardiovascular Technology 205.

Theory, equipment, and procedures for echocardiography to include M-mode, 2D, and Doppler. Recognition of specific echocardiographic patterns and abnormalities. Relates test finding to pathological states. Three hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 205—Introduction to Echocardiography Lab (1)**

**Corequisite:** Cardiovascular Technology 200.

Skill development in using echocardiographic imaging equipment, machine adjustments, and obtaining correct views on M-mode, 2-dimensional, Doppler and color flow echocardiograms under direct supervision. Includes exercises in recognition of cardiac anatomy and pathology towards diagnostic evaluation of cardiac function. Three hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 210—Echocardiography Clinical Lab 1 (5)**

**Prerequisite:** Cardiovascular Technology 160.

**Corequisite:** Cardiovascular Technology 200 and 205.

Experience in echocardiography in a clinical facility to include conferences or lectures by physicians, sonographers, and guest lecturers to relate patient clinical presentations to diagnostic findings. Offered on a credit-no credit basis only. Twenty-four hours clinical, one hour discussion/seminar. **Transfer Credit: CSU.**

**Cardiovascular Technology 240—Invasive Cardiology Clinical Lab 1 (5)**

**Corequisite:** Cardiovascular Technology 130.

Clinical practice within a cardiac catheterization laboratory to include performances of patient monitoring, data collection, and recognition of anatomical and hemodynamic abnormalities for coronary artery disease. Course includes one hour of discussion-seminar with physician lecturers each week. Offered on a credit-no credit basis only. Twenty-five hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 250—Advanced Echocardiography (2)**

**Prerequisite:** Cardiovascular Technology 200 and 205.

**Corequisite:** Cardiovascular Technology 255.

Advanced theory, equipment, and procedures in echocardiography, including Doppler, color flow Doppler in adults, pediatric and fetal echocardiography. Further development of techniques and evaluation of disease states using exercise stress, TEE, pharmacological stress, and contrast echocardiographic studies. Two hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 255—Advanced Echocardiography Lab (1)**

**Prerequisite:** Cardiovascular Technology 200 and 205.

**Corequisite:** Cardiovascular Technology 250.

Skill development in advanced echocardiographic techniques under direct supervision. Includes spectral Doppler, color flow Doppler, pediatric, stress/pharmacological stress, TEE, and further evaluation of adult echocardiography. Computer lab modules for advanced echocardiographic techniques and Registry Review. Three hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 260—Cerebrovascular Ultrasound (2)**

**Prerequisite:** Cardiovascular Technology 200.

Diagnosis and scanning techniques in the evaluation of cerebrovascular disease by ultrasound and Doppler testing. Includes normal anatomy and physiology of the cerebrovasculature, ultrasound instrumentation, and examination techniques related to pathologies. Two hours. **Transfer Credit: CSU.**

**Cardiovascular Technology 265—Echocardiography Clinical Lab 2 (6)**

**Prerequisite:** Cardiovascular Technology 210.

**Corequisite:** Cardiovascular Technology 250 and 255.

Experience in echocardiography and cerebral vascular ultrasound in an assigned clinical facility to include conferences, physician lectures, and seminars relating to actual patient situations or examinations for diagnostic findings. Successful clinical performance evaluation and submission of written patient case study. Offered on a credit-no credit basis only. Twenty-seven hours clinical, one hour discussion/seminar. **Transfer Credit: CSU.**

**CHEMISTRY**

**Chemistry 100—Principles of Chemistry (3)**

Nonmathematical chemistry for students not majoring in science. Emphasis on relationship of chemistry to the human body with particular attention to drugs of all kinds, food, metabolism, cancer and environmental contaminants. Includes concepts of structure of matter, bonding, acid-base chemistry, organic chemistry and thermodynamics. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Chemistry 100L—Chemistry in the Laboratory (1)**

**Prerequisite:** Chemistry 100 or concurrent enrollment.

Chemical Laboratory experience to complement and supplement topics covered in Chemistry 100 and 101. Introduction to measurement methods, chemical analysis, chemical synthesis and various laboratory techniques. Includes experiments related to the chemistry of food, drugs, pollution and consumer products. May be taken for grades or on a credit-no credit basis. Three hours non-lecture. **Transfer Credit: CSU; UC.**

**Chemistry 110—Introductory Chemistry (5) (CAN CHEM 6)**

**Prerequisite:** Mathematics 010 with grade of 'C' or better.

An introduction to the basic principles of inorganic, organic and biochemistry. Not intended for students planning to take Chemistry 180 or 130. May be taken for grades or on a credit-no credit basis. Four and one-half hours lecture, two and one-half hours laboratory. **Transfer Credit: CSU; UC.**

## Chemistry 130—Preparatory General Chemistry (4)

**Prerequisite:** Mathematics 030 (or appropriate placement).

**Recommended preparation:** Eligibility for ESL 160AB or English 099.

Introduction to the principles, calculations, and laboratory techniques of chemistry for students planning to take Chemistry 180. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, two and one-half hours laboratory. **Transfer Credit: CSU; UC.**

## Chemistry 180—General Chemistry (5) (CAN CHEM 2)

**Prerequisite:** Math 030 (or appropriate placement) with grade of 'C' or better, and Chemistry 130 (or appropriate placement) with grade of 'C' or better based on chemistry assessment plus one year of high school chemistry.

This course studies gases, solutions, reactions, bonding theories, acid-base, and redox theory. Four hours lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

## Chemistry 185—General Chemistry (5) (CAN CHEM 4)

**Prerequisite:** Chemistry 180 with grade of 'C' or better.

Study of non-ideal solutions, chemical equilibria, thermodynamics, kinetics and nuclear chemistry. Four hours lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

## Chemistry 220—Organic Chemistry (3)

**Prerequisite:** Chemistry 185 with grade of 'C' or better.

A study of organic compounds and their reactions from the standpoint of structure, mechanisms and kinetics. Introduction to spectroscopic methods of identification. Three hours. **Transfer Credit: CSU; UC.**

## Chemistry 221—Organic Chemistry Laboratory (2)

**Corequisite:** Chemistry 220.

Theory and techniques of separation, purification, synthesis and analysis of organic compounds including instrumental methods of chromatography and spectroscopy. One hour lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

## Chemistry 225—Organic Chemistry (3)

**Prerequisite:** Chemistry 220 with a grade of 'C' or better.

Further study of the structures, reactions, mechanisms and kinetics of organic compounds. Introduction to biologically important compounds and natural products. Three hours. **Transfer Credit: CSU; UC.**

## Chemistry 226—Organic Chemistry Laboratory (2)

**Prerequisite:** Chemistry 221.

**Corequisite:** Chemistry 225.

Further applications of laboratory theory and techniques in the synthesis and analysis of organic compounds including instrumental methods of chromatography and spectroscopy. Includes the separation and analysis of some biologically important compounds. One hour lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Chemistry 281L—Protein Chemistry Laboratory (1)

**Prerequisite:** Biology 281 or 281H or concurrent enrollment.

This laboratory course will focus on experimental methods involving the purification and analysis of protein. The students will gain hands-on experience with spectrophotometry, enzyme purification and kinetics, ion exchange, affinity, and gel filtration chromatography, SDS-Polyacrylamide electrophoresis, and Western blot analysis. Three hours laboratory. **Transfer Credit: CSU.**

## COMPUTER AND HIGH TECHNOLOGY

### Computer and High Technology 100—Computer Use in Technology (3)

An introduction to the current state of computer hardware and software technology for the student enrolled in technical courses. An overview for the person who wants to understand computers and automation in industry. Not a programming course. Three hours. **Transfer Credit: CSU.**

## COMPUTER INFORMATION SYSTEMS

### Computer Information Systems 100—Introduction to Information Systems and Microcomputer Applications (3)

Provides students with the basic understanding of computers and their applications. Students will use personal computers to learn software applications, such as word processing, electronic spreadsheets, database management, multimedia presentations, and Internet research. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. No prior computer experience is necessary. Satisfies part of the lower division requirement for business majors at some California State University and University of California campuses. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

### Computer Information Systems 103—Desktop Publishing (4)

An introductory course in producing brochures, newsletters and other print material using microcomputers and laser printers. Includes hands-on experience in desktop publishing software and its major features, specifically text processing, page layout, graphics and much more. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

### Computer Information Systems 106—Introduction to Unix (4)

**Prerequisite:** Computer Information Systems 107 or Business 107 or Computer Information Systems 100 or Computer Science 111.

An introductory course in the UNIX (i.e., Linux, Solaris, Mac OS X, HP-UX, AIX) operating system. Students will develop skills in using the UNIX file system and the standard UNIX commands and regular expressions. Students will write shell scripts and be introduced to the fundamentals of multi-user process control. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

### Computer Information Systems 107—MS Windows (1) (4 week course)

This course develops skills in using the Microsoft Windows operating system. Topics include configuring the desktop to meet individual needs and installing and using other software and hardware designed for MS Windows. Also, the students will be taught the concepts of file and folder management and the use of control panel to customize the computer system. Same as Business 107. Students completing Computer Information Systems 107 may not receive credit for Business 107. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

### Computer Information Systems 108AB—Electronic Portfolios (1.5) (8 week course)

This course is designed for students who wish to create business card CD-ROM electronic portfolios. Students will collect, organize, document, and verify evidence of prior learning experiences, achievements, and abilities. A capstone component prepares students to create a digital collection on business card CD-ROMs using a variety of formats. May be taken for grades or on a credit-no credit basis. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

### Computer Information Systems 110—PC Concepts: A+ Certification Preparation (4)

Introduces the hardware and operating system concepts of a personal computer and the broad range of hardware and software technologies. Provides preparation for students seeking A+ certification sponsored by the Computing Technology Industry Association and certifies the competency of entry-level service technicians in the computer industry. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

### Computer Information Systems 112—Educational Applications of Technology (2) (8 week course)

This course will provide the student with the educational applications of technology, including multimedia, Internet skills, graphics, research, video, audio, presentation and computer skills, basic networking processes, downloads, software resources, basic troubleshooting skills, scanners, and basic hardware and software evaluations. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 122—Introduction to the Internet (1.5) (8 week course)**

This course will provide an overview of the Internet—past, present, and future. Browsers will be used to access email, search the World Wide Web, and subscribe to news groups. Students will use FTP to download and upload files, start a Telnet session, and create basic web pages. May be taken for grades or on a credit-no credit basis. Three hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

**Computer Information Systems 123—Introduction to Web Page Design (2) (8 week course)**

**Recommended preparation:** Computer Information Systems 122.

This course will provide a practical understanding of the HTML tags to design a web page. Notepad and other software tools will be used to teach text formatting commands, background formatting, hyperlinks, e-mail links, tables, forms, image maps, and frames. Students will also learn to insert various types of images, videos, and sound files into a web page. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Computer Information Systems 126—Introduction to E-Commerce (2) (8 week course)**

**Recommended preparation:** Computer Information Systems 122.

This course introduces the concept of e-business models, including those of successful online businesses. Students will design a web-based business. Same as Business 126. Students completing CIS 126 may not receive credit for Business 126. May be taken for grades or on a credit-no credit basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Computer Information Systems 128—Introduction to Dreamweaver (2) (8 week course)**

**Recommended preparation:** Computer Information Systems 123.

Students will use Macromedia Dreamweaver to effectively manage and maintain web sites and to develop sites that are accessible to a wide audience. Students will work in an environment that integrates visual and code editing. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 131— Microsoft Word 1 (2) (8 week course)**

**Recommended preparation:** Computerized Office Technology 109 or keyboarding speed of at least 30 wpm.

Course is designed to improve document processing skills using Microsoft Word. Topics cover preparing documents, formatting and managing documents, and enhancing documents. Prepares students with the skills required to pass the Microsoft Office Specialist (MOS) Certification exam. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively. Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Computer Information Systems 132—Business Multimedia and Graphics (2) (8 week course)**

The student will use Macromedia Studio MX and Adobe PhotoShop to create, modify, and implement multimedia and graphics for business and educational use. Web page element creation, such as graphics and animation, Internet research, video, audio, and digital acquisition methods, hardware and software evaluation, presentation, and computer skills are included in the course. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 133—PowerPoint (1) (4 week course)**

This course demonstrates how proven, effective presentation techniques can blend with the technology of computer-generated graphics to create dynamic, colorful, and exciting multimedia presentations. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. Same as Business 133. Students completing CIS 133 may not receive credit for Business 133. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 134—Excel 1 (2) (8 week course)**

Topics include spreadsheet concepts, model building, formula development, formula functions, and database functions. Students will create graphs and keyboard macros. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. Same as Business 134. Students completing CIS 134 may not receive credit for Business 134. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 135—Introduction to Microsoft Access (2) (8 week course)**

An introductory course in database management using Microsoft Access. Concepts include creating and managing tables, query techniques, creating forms and reports, and integrating Access with other programs. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 137—Microsoft Outlook (1) (8 week course)**

The basics of communicating by email. Students will learn to send instant messages. Other topics include the use of calendar and management of contacts, tasks, and appointments. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

**Computer Information Systems 171—JavaScript Programming (2) (8 week course)**

**Recommended preparation:** Computer Information Systems 123.

For students who already know how to create web pages JavaScript is a scripting language that is used to create interactive web pages. Students will use the JavaScript object model to write programs that access the JavaScript Window, Document, History, and Link objects. Students will also create and process interactive HTML forms. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

**Computer Information Systems 176—SQL Server Administration and Design (4)**

**Recommended preparation:** Computer Information Systems 192.

This course provides students with the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server. Provides preparation for students seeking Microsoft Certified Systems Engineer certification. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

**Computer Information Systems 177—SQL Server Design and Implementation (4)**

**Prerequisite:** Computer Information Systems 192.

This course will provide the student with the knowledge to design and optimize Microsoft SQL Servers. The student will learn how to deliver powerful database solutions by designing and implementing data driven applications using Microsoft SQL Server. This course will also prepare students to take the Microsoft Certified Engineer exam. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

**Computer Information Systems 182—Introduction to Database Concepts (4)**

**Recommended preparation:** Computer Science 111.

An introduction to relational database design, implementation, and management and discusses such concepts as Entity-Relationship Diagrams, normalization, data warehousing, client/server, transaction management, and Internet database implementation. Provides preparation for students seeking Oracle Developer certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 183—Oracle SQL Programming (4)**

**Recommended preparation:** Computer Science 111 and Computer Information Systems 182.

An introduction to Structured Query Language (SQL) for the Oracle environment. Students will learn how to manipulate data objects (create, store, retrieve, and modify data) and how to write script files using the SQL\*Plus environment. Provides preparation for students seeking Oracle Developer certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Computer Information Systems 184—Oracle PL/SQL Programming (3)

**Recommended preparation:** Computer Information Systems 183.

An introduction to PL/SQL using SQL\*Plus environment. Students will learn how to create PL/SQL application code blocks and use them in forms, reports, and data management applications. Provides preparation for students seeking Oracle Developer certification. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Computer Information Systems 185—Oracle Forms and Reports Developer (4)

**Recommended preparation:** Computer Information Systems 183.

An introduction to Oracle Forms and Reports environment. Students will learn how to customize forms, design and control data access, and build Web and paper reports. Students will also learn how to use forms to test and debug Web applications, use Reports Builder and Report Wizard to retrieve data, display data in specific format, and publish reports to the Web. In addition, this course provides preparation for students seeking Oracle Developer certification. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Computer Information Systems 187—Oracle Database Administration I (3)

**Recommended preparation:** Computer Information Systems 182, 183.

An introduction to the fundamentals of Oracle database administration where students will learn the daily operations, including how to install, start, and shutdown. In addition, the Oracle enterprise Manager tool will be used to administer and monitor Oracle. Provides preparation for students seeking Oracle Database Administration certification. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Computer Information Systems 188—Oracle Database Administration II (2) (8 week course)

**Recommended preparation:** Computer Information Systems 182, 183, 187.

Advanced Oracle administration fundamentals. Oracle backup and recovery tools, networking, and Oracle Shared Server, including instance and media recovery, user managed backups, Recovery Manager (RMAN) backup, and network configuration. Provides preparation for students seeking Oracle Database Administrator certification. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Computer Information Systems 189—Oracle Database Performance Tuning (2) (8 week course)

**Recommended preparation:** Computer Information Systems 182, 183, 187, 188.

Students are introduced to Oracle performance and tuning concepts, terminology, and tools. Topics include tuning goals, diagnostic and performance tools, sizing memory structures, optimizing storage, and SQL statement tuning. Provides preparation for students seeking Oracle Database Administrator certification. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Computer Information Systems 191—Network and Communications Technologies (4)

**Recommended preparation:** Computer Information Systems 110.

This course provides an introduction to and overview of the field of networking, data communications, and connectivity with an emphasis on terminology, hardware, and software associated with the various components of a network. It covers the Open Systems Interconnection (OSI) reference model, communication protocols, data transmission and network structures. Provides preparation for students seeking Network+ certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Computer Information Systems 192—Network Systems Administration (4)

**Recommended preparation:** Computer Information Systems 110 and 191.

This course covers terminology, technology, topologies, and software used in the Microsoft Windows local area network operating system. Designed for computer users and administrators who intend to install and work with Microsoft Windows local area networks. Systems administrators will learn to support users, save user accounts, implement different levels of security, apply diagnostics and back up and maintain the software. In addition, this course will help prepare students for Microsoft Windows Microsoft Certified Systems Engineer (MCSE) exams. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems 193—Network Infrastructure Administration (3)

**Recommended preparation:** Computer Information Systems 192.

This course provides students with the knowledge required to setup, configure, use, and support a network infrastructure using the Transmission Control Protocol/Internet Protocol (TCP/IP). Topics such as IP addresses, multiple TCP/IP routed networks, point-to-point tunneling protocols, DNS and DHCP services and local and remote host names will be discussed. In addition, this course will help prepare students for Microsoft Windows Microsoft Certified Systems Engineer (MCSE) exams. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems 194—Network Directory Services Administration (3)

**Recommended preparation:** Computer Information Systems 192.

This course provides an advanced study of Local Area Networks. It focuses on an in-depth study of the procedures necessary to design a Directory Service-based network, including the creation of a design document, implementation schedules, and migration strategies. Students will design solutions to problems as they relate to real-world situations, such as problem determination procedures, system bottlenecks and Directory database measurement. In addition, this course will help prepare students for Microsoft Windows Microsoft Certified Systems Engineer (MCSE) exams. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems 196—Network Security Design (4)

**Recommended preparation:** Computer Information Systems 192.

This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks. Focuses on providing secure access to local area network users, remote users and remote offices, between private and public networks, and to individuals and external business partners outside of the organization. In addition, this course will help prepare students for Microsoft Windows Microsoft Certified Systems Engineer (MCSE) exams. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Computer Information Systems 199AD—Current Topics in Computer Applications (1-4)

This course covers topics currently receiving attention in the computer industry. Units vary according to topic selected and the number of meetings scheduled. This course may also be offered online. May be taken for grades or on a credit-no credit basis. One to four hours lecture, 0-three hours non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems 223—Advanced Web Page Design (3)

**Recommended preparation:** Computer Information Systems 123 and Computer Information Systems 171.

For students who already know how to create web pages using HTML and JavaScript, this course covers advanced features of web page design. Topics include creating and using style sheets, using DHTML, working with scripts, and concepts of information exchange with XML. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Computer Information Systems 224—ASP.NET Programming (4)**

**Recommended preparation:** Computer Science 140 or 142.

Students will create dynamic web sites, web applications, and web services using Active Server Pages.NET (ASP.NET), Visual Basic.NET, and/or C#. Topics include ASP.NET events, controls, WebForms, data validation, databases, and security. Provides preparation for students seeking Microsoft Certified Application Developer (MCAD) certification. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Computer Information Systems 225—ColdFusion MX Programming (3)**

**Recommended preparation:** Computer Information Systems 123.

Students will create dynamic web sites using ColdFusion MX. Students will write database web applications, implement security mechanisms, integrate with email, build reusable functions and components, generate data-drive reports and graphs, and interact with Flash MX and other external applications. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Computer Information Systems 226—Applied E-Commerce (4)**

**Recommended preparation:** Computer Information Systems 223 and 224.

This course is intended for students with previous programming and database exposure looking for in-depth coverage of the business and technological applications of e-commerce. Students will plan, design, build, and administer their own e-commerce sites by using tools like Access 2000/MSSQL web templates, CGI, ASP, JavaScript, ActiveX, and HTML. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

**Computer Information Systems 231—Microsoft Word 2 (2) (8 week course)**

**Recommended preparation:** Computer Information Systems 131.

Advanced course for mastering Microsoft Word. This course is designed for students who have completed CIS 131, Microsoft Word 1. Course is intended to improve document processing skills using Microsoft Word. Topics cover organizing and personalizing data, enhancing, automating, and managing data, and sharing and publishing information. Prepares students with skills required to pass the Microsoft Office Specialist (MOS) Certification exam. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Computer Information Systems 232—Digital Video for Business: Adobe Premiere Pro (3)**

**Recommended preparation:** Computer Information Systems 100.

Provides students with practical and current knowledge regarding the acquisition, modification and distribution of digital video production for use in business, educational, and personal use. The curriculum would include Internet research, digital video, audio, and acquisition methods, hardware and software evaluation, composition and technology skills. The student would research, create, manipulate and implement multimedia and graphic elements in individual and group projects. The student will leave with resources and knowledge to continue acquisition of knowledge related to field. May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

**Computer Information Systems 234—Excel 2 (2) (8 week course)**

**Recommended preparation:** Computer Information Systems 134 or Business 134.

Students will create templates and macros using Visual Basic for Applications to automate Excel tasks, formula auditing, data validation, complex problem solving, importing data, routing changes, PivotCharts, PivotTables, and trendlines. Same as Business 234. Students completing Computer Information Systems 234 may not receive credit for Business 234. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**COMPUTER SCIENCE**

**Computer Science 111—Introduction to Information Systems and Programming (4) (CAN BUS 6)**

Provides a general background in information systems and programming. Personal computers will be used to write programs in Visual Basic. In addition, students will learn file concepts, operating systems, and how to use application software such as electronic spreadsheet, database management, and Internet. Open to all majors and no prior computer experience is necessary. Satisfies lower division computer requirements for business majors at some California State University campuses. This course may also be offered online. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

**Computer Science 115—PASCAL Programming (4) (CAN CSCI 12)**

**Recommended preparation:** Computer Science 111.

Designed to provide the student with a general background in computer programming concepts and applications using the structured programming approach in Pascal language. Emphasis is on a systematic approach to problem solving using the computer. This is a transfer course for the computer science major. This course may also be offered online. Three and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU; UC.**

**Computer Science 116—Computer Architecture (4)**

**Prerequisite:** Computer Science 115 or 150.

A course in the architecture of computers. Topics will include Boolean algebra and computer arithmetic, digital logic, micro and macro architecture, Assembly language, performance, datapath and control, memory hierarchies, interfacing and peripherals, and multiprocessing. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Computer Science 140—Introduction to C#.NET Programming (4)**

**Recommended preparation:** Computer Science 111 or Computer Information Systems 100.

This course is designed to provide the students with a background in the object-oriented approach of the C#.NET language. Emphasis is on C# fundamentals: variables, expressions, methods, control structures, arrays, objects, classes, file I/O, database, Windows and web forms. Provides preparation for students seeking Microsoft Certified Application Developer (MCAD) certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

**Computer Science 142—Introduction to Visual Basic.NET Programming (4)**

**Recommended preparation:** Computer Science 111 or Computer Information Systems 100.

This course is designed to provide the students with a background in computer programming using the object-oriented approach of the Visual Basic.NET language. Emphasis is on VB.NET fundamentals: variables, expressions, methods, control structures, arrays, objects, classes, file I/O, database, Windows and web forms. Provides preparation for students seeking Microsoft Certified Application Developer (MCAD) certification. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

## Computer Science 150—C++ Programming Language 1 (4) (CAN CSCI 16)

**Prerequisite:** Computer Science 115 or 140 or 142 or 170 or 270 or Engineering 270.

First course in ANSI/ISO Standard C++ programming language. Topics include data types, strings, operators, expressions, control flow, input/output, functions, pointers, arrays, preprocessor, streams, enumerated data type, dynamic memory allocation, objects, classes, vector, inheritance, object-oriented design, and recursion. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours discussion. **Transfer Credit: CSU; UC.**

## Computer Science 152—Developing Windows Applications with .NET (4)

**Recommended preparation:** Computer Science 140 or 142.

Students will create Windows applications using Visual Studio.NET using the C#.NET or VB.NET programming languages. Topics include the .NET Framework, Windows Forms design, debugging, deployment, and security. Provides preparation for students seeking Microsoft Certified Application Developer (MCAD) certification. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

## Computer Science 170—Java Programming 1 (4)

**Recommended preparation:** Computer Science 111 or Computer Information Systems 100.

A beginning course in the Java programming language, object-oriented programming, the Java run-time environment, and the core application programming interfaces (APIs) that will enable students to design and implement applets and stand-alone applications. In addition to the core language features, several of the Java API facilities will be introduced. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

## Computer Science 200—Data Structures (4)

**Prerequisite:** Computer Science 250.

A study of data abstraction, algorithmic analysis, and common data structures. Data structures studied include linked lists, stacks, queues, trees, priority queues, tables, graphs, and files. Algorithms studied include searching, sorting, pattern-matching, tree traversal, and balancing. This is a core course for students who want to study advanced programming, computer science, or engineering. Programming assignments in C++. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Computer Science 220—Software Engineering (4)

**Recommended preparation:** Computer Science 200.

Introduction to the concepts, methods, and current practice of software engineering. Study of medium and large-scale software production; lifecycle of a software system. Employ engineering methods, processes, techniques, and measurement. Use of tools to manage software development; analyze, model, assess and control quality, and ensure a disciplined, controlled evolution and reuse. Project work is required to illustrating the various elements. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Computer Science 240—Microcomputer System Development (4)

**Prerequisite:** Computer Science 115 or 150.

A course in personal computer Assembly language. Topics include microcontrollers, hardware fundamentals, instruction set, addressing modes, timer and port operations, interrupt handling, Assembler passes, Assembler directives, Assembly language format, and Assembly language programming style. May be taken for grades or on a credit-no credit basis. Three hours lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

## Computer Science 250—C++ Programming Language 2 (4)

**Prerequisite:** Computer Science 150.

Second course in ANSI/ISO Standard C++ programming language. Topics include sorting and searching, data structures, operator overloading, memory management, exception handling, name scope management, polymorphism, templates, STL containers, STL algorithms and iterators, GUI, relational database and functional programming. May be taken for grades or on a credit-no credit basis. Three and one-half hours lecture, one and one-half hours discussion. **Transfer Credit: CSU; UC.**

## Computer Science 252—.NET XML Web Services and Components (4)

**Recommended preparation:** Computer Science 140 or 142.

Students will develop and implement middle-tier components, server components, and XML web services by using Visual Studio .NET and the Microsoft .NET Framework. Provides preparation for students seeking Microsoft Certified Application Developer (MCAD) certification. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Computer Science 265—Theories of Computation (1) (8 week course)

Study three types of structures (grammar, finite-state machines, Turing machines) used in modeling computation. Topics include language and grammar, finite-state machines with output, finite-state machines with no output, language recognition and Turing machines. Maybe taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU; UC.**

## Computer Science 270—Computer Programming for Engineering, Mathematics and Sciences (4) (CAN CSCI 20)

**Prerequisite:** Mathematics 157 or 180 or 180H or 182H.

Programming techniques and numerical analysis for digital computers emphasizing applications in science, mathematics, and engineering. Fortran programming with laboratory work on digital computers. Same as Engineering 270. Students completing C S 270 may not receive credit for Engineering 270. Four hours. **Transfer Credit: CSU; UC.**

## Computer Science 272—Java Programming 2 (4)

**Prerequisite:** Computer Science 170.

A second course in Java programming language. Topics include networking, databases and JDBC, web applications with servlets and JSP, Swing and GUI construction, Java 2D/3D graphics and multimedia, Java Beans, SML, internationalization, Enterprise Java Beans, collections, and Java security. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Computer Science 280AD—Current Topics in Computing (1-4) (8-16 week course)

Course covers topics currently receiving attention by the computer industry. This course may also be offered online. May be taken for grades or on a credit-no credit basis. One to four hours lecture, 0-three hours non-lecture. **Transfer Credit: CSU.**

## COMPUTERIZED OFFICE TECHNOLOGY

### Computerized Office Technology 109—Beginning Computer Keyboarding 1 (1.5) (8 week course)

The student will develop basic keyboarding skills on a computer keyboard using correct stroking techniques on letter, number, and symbol keys. Emphasis on developing accuracy and speed. No credit will be given to students who can already type 30 wpm. This course may also be offered online. Offered on a credit-no credit basis only. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Computerized Office Technology 111AB—Keyboarding Speed and Accuracy (1.5) (8 week course)

**Prerequisite:** Computerized Office Technology 109.

Development of keyboarding skill on a microcomputer for students who know how to type by touch. Speed and accuracy development using a variety of learning aids and software for diagnostic, prescriptive drills. May be taken concurrently with another typing course if desired. Offered on a credit-no credit basis only. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Computerized Office Technology 113—Beginning Computer Keyboarding 2 (1.5) (8 week course)**

**Prerequisite:** Computerized Office Technology 109.

Keyboarding on the computer for students who can type by touch control and know alphabetic, numeric, and symbolic keys presented in COT 109. Emphasis on speed and accuracy on straight copy material, introduction to MS Word, formatting of memos, personal letters, business letters, one-page reports, and simple tables. This course may also be offered online. Offered on a credit-no credit basis only. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Computerized Office Technology 150—Office Skills (3)**

**Prerequisite:** Computerized Office Technology 113.

Personal qualities and office skills required of the office assistant working in a high tech, multicultural labor force. Office applications generated with Microsoft Word enhance skills such as verbal and written communication, software applications, reprographics, telephone and mail procedures, records management, time and stress management, office ethics, and career planning. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**CONSTRUCTION TECHNOLOGY**

**Construction Technology 110AD—Wood Technology 1 (4)**

A survey of basic woodworking as it relates to current practices, materials, procedures, machines and tools. Emphasis is placed on safety, hand tool use, machine woodworking and maintenance for the development of personal knowledge and skills in crafts for home improvement. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Construction Technology 114AD—Cabinet Making (4)**

A study of cabinet making with emphasis on dwelling cabinet construction including hanging cabinets, base cabinets, pullmen, bookcases, custom cabinets, plastic laminates, door construction. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Construction Technology 116AD—Furniture Making and Design (4)**

The basic rules of furniture design and production are taught in this course with emphasis on wood selection, hand tool use, and a review of woodworking machinery. Advanced students will design and build more complex furniture pieces using more advanced techniques. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Construction Technology 165—Construction Safety/CAL OSHA (3)**

Regulations related to general construction safety. Meets the requirements and follows the guidelines for 30-hour OSHA Construction Outreach Training. U.S. Department of Labor cards will be issued upon successful completion of this course. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Construction Technology 170—Introduction to Construction (3)**

Fundamentals of the construction industry; terminology and procedures; an overview of trades, skills, and processes. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Construction Technology 180—Building Construction (5)**

**Recommended preparation:** Construction Technology 190 or 195 or concurrent enrollment.

Technical and practical experience to complete floor and wall framing of a house including underpinning, wall layout, and wall construction up to the ceiling joists. Estimating of materials, basic surveying, and concrete foundation formwork are also covered. Three hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Construction Technology 185—Building Construction (5)**

**Recommended preparation:** Construction Technology 180 and 190 or 195.

The study of roof design and cutting. The use of the framing square in roof layout. Pre-fabrication techniques in housing with field research assignments. Frame estimating for the building trades and the application of various roofing materials are also covered. Three hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Construction Technology 190—Blueprint Reading and Drafting (4)**

The purpose and uses of blueprints, how to take measurements from blueprints, become familiar with symbols on the blueprints and understand the basic principles in planning a house. Some facility in drafting and diagramming or depicting ideas is a necessary means of communicating ideas and making simple revisions between those in the construction field. Four hours. **Transfer Credit: CSU.**

**Construction Technology 195—Building Code and Law (3)**

A complete analysis of the Uniform Building Code, FHA Code, and city and county related building codes. Special ordinances and land usage are also covered. Three hours. **Transfer Credit: CSU.**

**Construction Technology 199AD—Current Topics in Construction Technology (1-4)**

Current issues in the field of construction technology, rotating through a variety of topics, such as residential/commercial/industrial electrical wiring, structured wiring, and general carpentry. May be taken for grades or on a credit-no credit basis. One to four hours lecture, 0-three hours non-lecture. **Transfer Credit: CSU.**

**Construction Technology 210—Concrete Construction (5)**

A study of various types of concrete structures and their materials. Surveying for form layout and elevations. Techniques of forming cast-in-place, reinforced and tilt-up concrete. Estimating form materials and concrete and bidding jobs. Hands-on concrete projects when available. Three hours lecture, six hours laboratory. **Transfer Credit: CSU.**

**Construction Technology 220—Construction Estimating (3)**

Construction estimating including bid preparation, material quantity take-off and analysis, labor and material pricing and quantities summation, subcontractor bids, bid correlation, bidding practices and final bid form compilation and submittal. Three hours. **Transfer Credit: CSU.**

**Construction Technology 225—Land and Building Development (3)**

A general survey of land development principles and procedures used prior to the actual construction of structures. Site analysis and planning, regulatory controls, obtaining entitlements, grading, road and street designs, utility systems, principles of real property, and project financing will be covered. Same as Architectural Technology 225. Students completing Construction Technology 225 may not receive credit for Architectural Technology 225. Three hours. **Transfer Credit: CSU.**

**Construction Technology 230—Construction Inspection (3)**

Inspection procedures and techniques of testing. A study of the various building code requirements in Uniform Building Code, Federal Housing Administration, and Title 21 of the California State Code. Plans, specifications, earthwork, grading foundations, concrete and framing are covered. Three hours. **Transfer Credit: CSU.**

**Construction Technology 235—Contractor's Business Practice (3)**

Functions and operations of a contractor's business organization, staffing, management policies, tool and equipment control, starting out, job bids, contracts, purchasing, accounting, planning and scheduling, and unions and labor. Three hours. **Transfer Credit: CSU.**

**Construction Technology 240—Residential Finish Carpentry and Finishes (5)**

This course covers interior and exterior building finishes and stairs, including layout fabrication and installation of stairs; door and window materials, construction, hardware and installation; interior and exterior millwork; molding and cabinetry; interior drywall and exterior siding, stucco plastering, and EIFS systems. Building codes and finish estimating are included. Three hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Construction Technology 250—Construction Supervision and Project Management (3)**

The combination of designing, estimating, contracting, financing and building must be understood and practiced. Leadership in this field means being responsible for many people, their work and their safety. Three hours. **Transfer Credit: CSU.**

## **Construction Technology 252—Business Law for Contractors (1.5) (8 week course)**

Legal aspects of the formation, operation, regulatory requirements, financing, and contracts for successfully operating a construction contracting business in California. Three hours. **Transfer Credit: CSU.**

## **Construction Technology 255—Construction Finance (3)**

Basic financial concepts of the construction and development industries, assembling construction loan packages, establishing a new business, analyzing the basic principles of financial statements. Three hours. **Transfer Credit: CSU.**

## **Construction Technology 260—Masonry Construction (3)**

Covers masonry history, employment, tools, materials, construction and blueprint reading with estimating, construction of walls, paving, veneering, tile, arches, fireplaces and concrete masonry block. Also grouting, ties, reinforcing, ornamental work, glass blocks, slump stone, power saws, lifts setting panels and miscellaneous masonry are practiced. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology 265—Plumbing 1 (4)**

A course designed to provide students with entry-level instruction involving the theory and skills of residential plumbing systems. Knowledge of basic principles, functions and design, as well as the physical ability to install and test the rough-in plumbing in a single family dwelling. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology 266—Plumbing 2 (4)**

A course designed to provide students with entry-level instruction involving the theory and skills of residential plumbing systems. Topics include basic principles, function, and design, as well as the installation of finish plumbing, repair and service of plumbing systems, and the installation of solar, spa, and sprinkler systems in a single family dwelling. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology 270AD—Contractor's License Law (1.5) (8 week course)**

Preparation for the California State Contractor Examination in any classification. Includes state license law, civil code, civil procedure, labor law, contract law, and asbestos regulations. Three hours. **Transfer Credit: CSU.**

## **Construction Technology 275—Residential Electrical Wiring (5)**

Wiring for interior electrical systems including layout and construction methods, code requirements, both sizing and installation standards, emphasis on material conservative practices, and compliance with the National Electrical Code. Three hours lecture, six hours laboratory. **Transfer Credit: CSU.**

## **Construction Technology 285—Residential Light Steel Frame Construction (5)**

A comprehensive hands-on course that covers the fundamentals of utilizing light frame steel for residential framing in place of wood. Raised floor construction, wall framing and trussed roof fabrication and installation including applicable building codes, blueprint reading, estimating, and inspections are covered. Three hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology 290—Construction Contracts and Specifications (3)**

**Prerequisite:** Management level in construction.

A study of construction contracts and their administration, elements of contract law, contract documents, AIA general and supplementary conditions, competitive bidding, bonding and insurance, unions and wage rates, specifications. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## **CONTRACT STUDIES**

*(See Admission and Academic Information Section)*

## **COOPERATIVE WORK EXPERIENCE**

*(See Internship Academy)*

## **COUNSELING**

### **Counseling 100—Introduction to College (1) (8 week course)**

This course is recommended for all new students pursuing a college degree or certificate and is an extension of the assessment and orientation process. This course is designed to orient students to the college environment and educational opportunities. Included are an introduction to college services, study skills, time management, college facilities, academic policies, and an exploration of the various segments of higher education in California. Students will develop an academic plan to achieve their tentative educational goals. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

### **Counseling 101—New Horizons for Men and Women (1) (8 week course)**

This course is designed to assist adult re-entry women and men in continuing their educational goals. Objectives include becoming aware of and exploring new opportunities for self-fulfillment in educational and/or vocational areas. Academic and career planning and the concerns of adults in a changing world will be explored. Interest and personality assessments will be available. May be taken for grades or on a credit-no credit basis. Testing fee required for this course. Two hours. **Transfer Credit: CSU.**

### **Counseling 102—Becoming a Master Student (2)**

Designed to develop the skills required to become a Master Student. Topics include study techniques, an orientation to higher education and college resources, life skills including stress management and time management, academic planning for degrees and certificates, and personal development to increase motivation, self-esteem, and academic success. For all students wishing to improve their success in college, for Transfer Opportunity Program participants, for students wanting to get a head start on college, and for students experiencing academic difficulty. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU; UC.**

### **Counseling 103—Introduction to College for Student Athletes (2-4) (8-16 week course)**

This course is recommended for all new student athletes pursuing a college degree or certificate and is an extension of the assessment and orientation process. Designed to orient students to the college environment and educational opportunities, the course includes an introduction to college services, study skills, time management, college facilities, academic policies, and an exploration of the various segments of higher education in California. Additional topics include substance abuse, nutrition, performance, and athletic eligibility. May be taken for grades or on a credit-no credit basis. Two or four hours. **Transfer Credit: CSU.**

### **Counseling 110—Applied Stress Management (2) (8 week course)**

This course is designed to respond to the need to understand and manage personal stress. Symptom identification and management techniques will be emphasized. Offered on a credit-no credit basis only. Four hours. **Transfer Credit: CSU.**

### **Counseling 120—Career Planning (2) (8-16 week course)**

Designed primarily for students uncertain about educational-occupational plans. Standardized tests of aptitudes, interests, personality characteristics and values are used along with non-test data in appraising occupational fitness. The world of work is surveyed through selected occupational information and projects. Working with information about themselves and the world of work, students develop a tentative career plan. Offered on a credit-no credit basis only. Testing fee required for this course. Two or four hours. **Transfer Credit: CSU.**

### **Counseling 135—Principles of Effective Parenting (3)**

This course is recommended for students who are interested in developing healthier communication patterns within the family system, workplace, and academic setting. Topics include in-depth self-exploration as it relates to family of origin and how it impacts an individual's level of functioning. Areas addressed include self-esteem, communication patterns, various realms of human growth and development, parent-child relationships, and stressors that impact a student's ability to function in a healthy manner. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Counseling 199AD—Topics in Counseling (5-3) (1-16 week course)**

Presentation, discussion and study of personal development issues. Topics may include personal motivation, values clarification, decision making, self-esteem and others. Introduces students to educational options and on campus resources such as counseling, transfer center, financial aid, education opportunity program, tutoring, career center, and library privileges. Students will learn how to develop student education plans. Units will vary depending on topic and number of meetings scheduled. Intended for students wishing to deal with issues relating to their own personal development and/or helping others with this process. Offered on a credit-no credit basis only. Three to nine hours. **Transfer Credit: CSU.**

**CULINARY ARTS**

**Culinary Arts 100—Introduction to the Hospitality Industry (3)**

Overview of the hospitality industry, its history and interrelationships of hotel, restaurant, travel and leisure industries. Economic and social influences of leisure. Emphasis on attitude required of a person seeking a position in the industry. Same as Food Service Management 100 and Hotel 100. Students completing Culinary Arts 100 may not receive credit for Food Service Management 100 or Hotel 100. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Culinary Arts 120—Culinary Principles 1 (3)**

**Prerequisite:** Food Service Management 160, or concurrent enrollment.

Fundamentals of food preparation and cookery, emphasizing quality standards of production and the basic cooking methods as used in the modern commercial kitchen. Laboratory work includes knife skill, vegetable cuts, preparation of vegetables, soups, stocks, and sauces. High standards of professionalism, sanitation, and proper work habits will also be emphasized. Class requires purchase of a set of knives. Students will be required to follow hospitality department dress standards. TB clearance required. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU.**

**Culinary Arts 122—Culinary Principles 2 (3)**

**Prerequisite:** Culinary Arts 120.

Basic cooking methods for major cuts of beef, veal, lamb, pork, poultry, and seafood. Portion control and proper boning techniques will be demonstrated and practiced. Quality standards of food presentation achieving proper flavor through the correct application of the principles and processes of modern cookery. High standards of professionalism, sanitation, and proper work habits will be emphasized. Course requires purchase of a set of knives. Students will be required to follow hospitality department dress standards. TB clearance required. One and one-half hours lecture; four and one-half hours non-lecture. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Culinary Arts 124—Principles of Baking 1 (2)**

**Prerequisite:** Food Service Management 160, or concurrent enrollment.

Study the fundamentals of baking, including ingredient composition and function, preparation and evaluation of yeast, roll-in yeast, and quick breads, biscuits and muffins, cookies, shortened cakes, pies, custards, and recipe conversion. Students will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, four hours laboratory. **Transfer Credit: CSU.**

**Culinary Arts 126—Principles of Baking 2 (2)**

**Prerequisite:** Culinary Arts 124.

Advanced course in pastry arts production, including puff pastry, foam cakes, classical European tortes, pastry fillings, meringues, cake decorating, chocolate handling, glazes, icings, tarts, and pate a choux. Students will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, four hours laboratory. **Transfer Credit: CSU.**

**Culinary Arts 149—Pantry (2)**

**Prerequisite:** Food Service Management 160, or concurrent enrollment.

Methods of pantry and breakfast preparation, including proper use of cook's knife, preparation and presentation of salad and salad dressings, proper vegetable and fruit cuts, and vegetable and fruit identification. Basic cooking methods applied in breakfast service will be covered. Students will also learn to use standardized recipes and practice quantity food preparation. Students will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Culinary Arts 150—Principles of Quantity Food Preparation (4)**

**Prerequisite:** Food Service Management 160, or concurrent enrollment.

The fundamentals of food preparation emphasizing high standards of quality. Includes preparation of various foods to demonstrate principles underlying food preparation and application of these principles to quantity food preparation. Course includes practice in using large quantity equipment in food preparation. Students will be required to follow Hospitality dress standards. TB clearance required. Two hours lecture, six hour laboratory. **Transfer Credit: CSU.**

**Culinary Arts 199AD—Current Issues in Culinary Arts (.5-1.5) (1-8 week course)**

This course deals with current issues in the field of culinary arts and food service management, rotating through a variety of topics such as culinary skills and innovations, sanitation, safety, nutrition, and management. May be taken for grades or on a credit-no credit basis. One to nine hours. **Transfer Credit: CSU.**

**Culinary Arts 200—Garde Manger (2)**

**Prerequisite:** Food Service Management 160, or concurrent enrollment, and Culinary Arts 149, or enrollment as indentured apprentice.

Duties and skills required of the garde manger (cold food) chef, including the proper execution of the basic cooking methods. The course will explore the artistic side of food presentation. Topics include buffet salads, cold sauces and dressings, smoking and curing of meats, hors d'oeuvre, pate, terrine, ice carving, salt dough, tallow sculpture, and cheeses. Students will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

**Culinary Arts 226—Principles of Pastry Arts (3)**

**Prerequisite:** Culinary Arts 126.

Advanced course of pastry arts, exploring chocolate artistry, confections, sugar work, and decorated cakes. Students will learn techniques to garnish specialty cakes, plated desserts, and buffets. Topics include chocolate tempering, cutouts, piping, molding, truffles, chocolate dough, sugar casting, pulling, blowing, marzipan, and specialty cakes. Students will be required to follow hospitality department dress standards. TB clearance required. One and one-half hours lecture, five hours laboratory. **Transfer Credit: CSU.**

**Culinary Arts 236AB—Directed Practice for Baking and Pastry (2)**

**Prerequisite:** Food Service Management 160 and Culinary Arts 124.

**Recommended preparation:** Culinary Arts 126.

A directed opportunity for on the job baking and pastry training. Option A includes practical training at OCC bakery for training in quantity bakery production. Option B includes on the job training at approved institutional or commercial facilities. Students will be required to follow dress standards and company policies of conduct set by the facility in which they are working. TB clearance required. Ten hours paid, eight hours unpaid, plus six hours seminar. **Transfer Credit: CSU.**

**Culinary Arts 245—Culinary Principles 3 (3)**

**Prerequisite:** Culinary Arts 122, 124, and 149.

Students will prepare a variety of American Regional Cuisine for service to customers in the OCC Captain's Table Restaurant. Cuisines from around the United States will be explained and discussed. Focus for the class will be on station readiness and implementation of the basic cooking methods in a volume, banquet style format while emphasizing the elements of quality presentation. Students will be required to follow hospitality department dress standards. TB clearance required. One and one-half hours lecture, four and one-half hours laboratory. **Transfer Credit: CSU.**

## Culinary Arts 255—Advanced Garde Manger (2)

**Prerequisite:** Culinary Arts 200.

This course applies previously learned garde manger techniques and skill in practical situations. Weekly themes will highlight different cuisine in a buffet format. Foods prepared will emphasize classical cooking with a modern approach to nutrition, service, and presentation. Also, charcuterie (sausage making), cheese making, and meat preservation will be explored. Students will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

## Culinary Arts 265—Ala Minute Continental Cooking (2)

**Prerequisite:** Culinary Arts 122, 124, and 149.

Students prepare menu offerings in the college's Captain's Table restaurant for the dining public. Emphasis is on station readiness, implementation of basic cooking methods, quality of presentation, and an exploration of a variety of cuisines from around the world in a cook-to-order format. Student will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, four hours non-lecture. **Transfer Credit: CSU.**

## DANCE

### Dance 100—Introduction to Careers in Dance (1) (2-8 week course)

This course is designed to help students considering a career in dance identify the broad scope of dance-related career options, (professional dancer/choreographer, dance therapist, and arts administrator among others), the education and training needed to pursue these careers, availability of jobs, and salaries. Guest appearances by professionals in these careers. May be taken for grades or on a credit-no credit basis. Two-nine hours. **Transfer Credit: CSU.**

### Dance 101AD—Modern Dance 1 (.5-2) (8-16 week course)

This course is developed to offer instruction, movement vocabulary, and technical skills necessary to prepare the body as an instrument of expression in the dance style known as modern dance. This dance style began in the United States in the early 1930's as a "modern expression" of American themes, personal and artistic ideas. The style has continued to evolve to include dance themes expressive of contemporary times. This course offers instruction at beginning and intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Dance 102AD—Contemporary Concert Dance (2)

**Recommended preparation:** Intermediate level modern dance technique. This recommended preparation will be validated in class during the first week of the course.

Designed to teach intermediate and advanced level dancers the dance movement and post modern dance based on the principles of Cunningham, Nikolais, Humphrey-Weidman and other pioneers of American modern and post modern dance. This course will explore the principles of "fall and recovery," symmetry/asymmetry, stage space, and ensemble work. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours activity. **Transfer Credit: CSU; UC.**

### Dance 106AB—Strength and Stretch (.5-2) (8-16 week course)

A course emphasizing strength and flexibility exercises and their application to dance technique, but also applicable to any sport. Exercises will be selected to target major muscle groups in the body which need both strength and flexibility for their maximum efficiency and range of motion. The course will address both the adaptation of exercises to the individual for maximum benefit and application to movement patterns. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

### Dance 107AD—Conditioning for Dance (.5-2) (8-16 week course)

A program combining skills from dance and exercise for body conditioning and strength. Non-dancers and dancers will improve alignment, endurance, movement memory, balance and coordination for greater technical ability in other dance studies. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance 108AD—Pilates Mat WorkPilates (.5-2) (8-16 week course)

A course emphasizing alignment and correctives work based on exercises and concepts developed by Joseph H. Pilates, beginning through advanced levels of instruction. The course focuses on mat work exercises for improved body alignment, strength, flexibility, control, coordination, and breathing. It will also aid in dance rehabilitation. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

### Dance 110AD—Ballet 1 (.5-2) (8-16 week course)

Designed to introduce and develop movement principles and skills necessary for the study of classical ballet. The course will include ballet terminology, use of 'turn out,' positions of feet and legs, alignment of spine and placement of weight at the barre, in center floor and traveling patterns. Instruction at the beginning and intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

### Dance 113AC—Pointe Work (.5-2) (8-16 week course)

**Recommended preparation:** Intermediate level ballet technique. This recommended preparation will be validated in class during the first week of the course.

A course teaching the technique and movement skills needed to perform classical ballet technique on 'pointe,' pointe shoe fitting process, preparation and care of pointe shoes, care of feet, and related injuries. Instruction at the high beginning, intermediate, and intermediate/advanced levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

### Dance 114AB—Ballet Floor Barre and Correctives (.5-2) (8-16 week course)

This course will improve technique and increase understanding of safe, efficient muscle use for ballet or other dance forms. With an emphasis on correct body alignment, breath, and efficient use of muscles, as well as corrective exercises for muscular reeducation, the student will perform a series of exercises "par terre" (on the floor) that simulate the standing ballet barre. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance 115AC—Yoga for Dancers (.5-2) (8-16 week course)

Using traditional yoga postures and breathing techniques, this course is designed for the needs of the training dancer. Yoga postures to increase strength and flexibility, as well as restorative postures will be taught in order to bring about improvement in the execution of dance movements. Instruction at the beginning, intermediate, and intermediate/advanced levels is offered. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance 116AD—Latin Dance Styles (.5-2) (8-16 week course)

This course is designed to teach Latin dance styles, including the following dances: cha-cha, marengue, tango, and salsa. Styling, rhythm, and partnering will be taught, as well as the cultural and historical background on the evolution of these dance forms. This course offers instruction at the beginning, low intermediate, intermediate, and high intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 117AD—American Social Dance Styles (.5-2) (8-16 week course)**

This course is designed to teach American social dance styles, including the following dances: foxtrot, waltz, swing, and Lindy hop. Styling, rhythm, and partnering will be taught, as well as the cultural and historical background on the evolution of these dance forms. This course offers instruction at the beginning and intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 118AB—Dance Workout for the Maturing Body (.5-2) (8-16 week course)**

Using a basic dance workout combined with dance conditioning exercises, this course will consider the fitness and wellness needs in the maturing body. Coordination, efficient posture, an ease in body alignment, range of motion, strengthening of muscles, breathing, and improvement in functional movement will be addressed. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 119—Kinesiology for Dance (3)**

This course is designed to introduce students to the basic principles of kinesiology focusing on the key body joints including the spine, shoulder, hip, knee, ankle, and foot. It addresses the specific needs of dancers and Pilates students. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Dance 120AD—Jazz Dance 1 (.5-2) (8-16 week course)**

Jazz 1 emphasizes jazz dance styles of the entertainment industry and current trends in jazz dance. Designed to build on and develop movement principles. For beginning and intermediate levels. Students should be prepared to participate at the first class meeting. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 123AB—Commercial Dance Workshop (.5-2) (3-16 week course)**

**Recommended preparation:** Advanced level jazz dance technique. This recommended preparation will be validated in class during the first week of the course.

This course emphasizes movement for commercial dance work used in movies, concert dance, television and industrial shows, and offers current trends in popular dance and jazz styling. Designed for the advanced level dancer and those attending commercial auditions on a regular basis. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Dance 124AD—Dance for Musical Theatre Workshop (.5-2) (8-16 week course)**

Designed to teach dance forms used in musical theatre, including the basic dance vocabulary of 'period' dances of the 20's, 30's, etc., dance styles of such choreographers as Bob Fosse, dance/drama styles of DeMille and Robbins, and current musical choreography. Student will be taught original 'Broadway style' choreography. Through the use of dance videos and learning dance sequences, the student will gain experience in the particular musical theatre dance style required. Student will work as part of a dance chorus and learn basic audition skills. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 125AD—Tap 1 (.5-2) (8-16 week course)**

A course designed to teach tap dance technique based on the style known as rhythm tap emphasizing fundamental skills and rhythms, time steps, flash footwork, short combinations, and styling. This course offers instruction at the beginning and intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 128AD—Pilates Apparatus and Mat Work (.5-2) (8-16 week course)**

A course emphasizing alignment and correctives work based on exercises and concepts developed by Joseph H. Pilates, beginning through advanced levels of instruction. The course focuses on exercises for mat, reformer, wunda chair, and other apparatus with emphasis on improved body alignment, strength, flexibility, control, coordination, and breathing. It will also aid in dance injury prevention and rehabilitation. May be taken for grades or on a credit-no credit basis. .25-1.0 lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 130AD—Mid-Eastern Dance 1 (.5-2) (8-16 week course)**

A technique course emphasizing the social and stage dances from the region designated as the Near and Middle East. Incorporates choreography, improvisation, movement vocabulary and styling, and finger cymbal playing. Instruction at the beginning and intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 133AB—Introduction to World Dance (.5-2) (8-16 week course)**

This is an introductory level course designed to survey dances of selected world dance cultures. Through movement experiences and lecture/discussion, students will gain the movement technique and understanding necessary to perform dances from the West (United States), Africa, Asia, and other areas of the world. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 135AD—Flamenco Dance 1 (.5-2) (8-16 week course)**

Designed to teach Flamenco dance. Lectures and discussions on background information pertinent to this dance form will be included. Of interest to dancers and non-dancers. Beginning and intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 136AD—Spanish Classical Dance (.5-2) (8-16 week course)**

The course is designed to offer instruction in Spanish classical dance focusing on the 'school dances,' dances of Northern and Central Spain, as well as neo-classical forms. The course offers instruction at the beginning, intermediate, intermediate/advanced and advanced levels. May be taken for grades or on a credit-no-credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 137AD—Classical Dance of India (.5-2) (8-16 week course)**

A beginning level technique course designed to introduce students to the footwork, facial expression, gestures and styling of Indian classical dance with emphasis on the 'Bharatha Natyam' style. The mythology, history and theoretical background of dances of India and their development over 3,000 years will be covered. Of interest to dancers and choreographers, as well as non-dancers. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 138AD—Dances of Africa (.5-2) (8-16 week course)**

A movement course in focusing on the learning of traditional and contemporary dances of various African cultures, especially those of Nigeria and Ghana. Students will learn the fundamental elements of dances including polyrhythms, 'call and response' (drummer/dancer), integration of movement to live drumming, as well as information about the integral link between dance and the social/religious aspects of African cultures. May be taken for grades or on a credit-no credit basis. .5-1.0 hour lecture, 1.5-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 139AD—Gyrokinesis® (.5-2)**

Designed for beginning level students, this course will present an introduction to Gyrokinesis®, an important component of the Juliu Horvath Method. The entire body is worked through fluid exercises focusing on the natural directions of spinal movements and joint articulations. The course will involve participatory labs and skills demonstrations. May be taken for grades or on a credit-no credit basis. 1.75-3.0 hours activity. **Transfer Credit: CSU.**

**Dance 140AD—American Vernacular Dance (5-2)  
(8-16 week course)**

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course.

A course designed for intermediate or advanced dancers to study the American vernacular rhythm dance styles and key people (King Rastus Brown, Bill Robinson, John W. Bubbles) responsible for these styles which are considered indigenous to the United States. Each semester will focus on two or more of these key figures and their contribution to American vernacular dance. Contributors such as Fred Astaire, Gene Kelly, Coles and Atkins, Gregory Hines, and contemporary artists Savion Glover and Dianne Walker will also be included. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

**Dance 143AD—Jazz Dance 2 (1-2)**

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course.

Jazz 2 emphasizes jazz dance styles of the entertainment industry and current trends in jazz dance. Designed to build on and develop movement principles from Jazz 1. For high intermediate and advanced levels. Students should be prepared to participate at the first class meeting. May be taken for grades or on a credit-no credit basis. .50-1.0 hour lecture, 1.0-3.0 hours non-lecture. **Transfer Credit: CSU.**

**Dance 144AD—Ballet 2 (5-2)**

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course.

Designed to develop movement principles and skills necessary for the study of classical ballet. Course will include ballet terminology, use of "turnout," positions of feet and legs, alignment of spine and placement of weight at the barre and in center floor and traveling patterns. Instruction is at the high intermediate and advanced levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

**Dance 145AD—Modern Dance 2 (5-2)**

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course.

This course is developed to offer instruction, movement vocabulary and technical skills necessary to prepare the body as an instrument of expression in the dance style known as modern dance. This dance style began in the United States in the early 1930's as a "modern expression" of American themes, personal and artistic ideas. The style has continued to evolve to include dance themes expressive of contemporary times. Instruction at the high intermediate and advanced levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hours lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

**Dance 146AD—Tap 2 (5-2)**

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course.

A course designed to teach tap dance technique based on the style known as rhythm tap emphasizing fundamental skills and rhythms, time steps, flash footwork, short combinations, and styling. Instruction at the high intermediate and advanced levels are offered. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

**Dance 147AD—Flamenco Dance 2 (5-2)**

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course.

Designed to teach Flamenco dance. Lectures and discussions on background information pertinent to this dance form will be included. For high intermediate/advanced levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

**Dance 148AD—Mid-Eastern Dance 2 (5-2)**

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course.

A technique course emphasizing the social and stage dances from the region known as the Near and Middle East. Incorporates choreography, improvisation, movement vocabulary and styling, and finger cymbal playing. Instruction at the high intermediate/advanced levels are offered. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

**Dance 149AD—Hip-Hop Dance (5-2)**

This course offers instruction in the movement vocabulary and technical skills that are needed for the dance style known as Hip-Hop. The class will explore the use of space, energy, rhythm, and improvisation while emphasizing body control, alignment, balance, and use of weight changes. This course offers instruction at the beginning and intermediate levels. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU.**

**Dance 150AD—Improvisation Workshop (1)**

Directed exploration of dance movements including use of space, dynamics and rhythm as expressed through individual movement vocabulary. Designed for all levels. May be taken for grades or on a credit-no credit basis. One-half hour lecture, one and one-half hours activity. **Transfer Credit: CSU; UC.**

**Dance 160—Introduction to Choreography (3)**

**Recommended preparation:** Intermediate to advanced level skills in Dance 101AD or Dance 110AD or Dance 120AD. This recommended preparation will be validated in class during the first week of the course.

A course for dancers at intermediate to advanced technique levels. The course emphasizes basic skills in problem solving, the crafting and creating of dances, and learning about established choreographers. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

**Dance 162AB—Advanced Dance Composition (3)**

**Prerequisite:** Dance 160.

A course for dancers at intermediate to advanced technique levels. The course emphasizes more advanced methods of creating dances and learning about historical contributions of well-known choreographers. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

**Dance 170—Music for Dancers (2)**

Assists the dancer-choreographer (non-musician) in building a knowledge of the fundamentals of music through the limited study of theory, terminology and notation. The course is designed to present the development of music and dance in historical perspective, to develop through listening an awareness of the musical literature available, to train dancer and musician to work together through development of a common vocabulary and a working knowledge of each other's craft. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU; UC.**

**Dance 191AC—Classical Technique and Variations Workshop (5-1) (4-8 week course)**

**Recommended preparation:** Intermediate level ballet technique. This recommended preparation will be validated in class during the first week of the course.

A short term intensive seminar/workshop designed to offer classical technique and variations for the intermediate/advanced and advanced level student. Dance 191A will focus on the Romantic Period and style, Dance 191B will focus on the Russian Imperial Period and style, and Dance 191C will focus on the Neo-Classical style of Balanchine and other contemporary ballet choreographers and their choreography. Offered on a credit-no credit basis only. .25-.5 hour lecture, .75-1.5 hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 195AD—Summer Dance Workshop (5-1.5) (1-3 week course)**

**Prerequisite:** Eligibility based on successful audition. This prerequisite will be validated in class during the first week of the course.

An intensive dance experience with a guest dance artist. The movement material for this class will be from the guest artist's repertoire and will be designed for intermediate and advanced level dance students. Offered on a credit-no credit basis only. Nine to twenty-seven hours lecture, nine to twenty-seven hours activity. **Transfer Credit: CSU; UC.**

**Dance 199AD—Current Dance Topics (5-3) (8-16 week course)**

Movement and lecture/discussion of topics and issues of current interest in dance. Units vary according to the topic selected, semester offered and number of meetings scheduled. Designed for intermediate/advanced level dance students. May be repeated with different topics. May be taken for grades or on a credit-on credit basis. .3-1.8 hours lecture, .7-4.2 hours non-lecture. **Transfer Credit: CSU.**

**Dance 200—Appreciation of Dance (3)**

Designed for students to view dance of all styles from a global perspective. Emphasis is on the basic components (space, energy, musical accompaniment, movement vocabulary, style) characteristic of classical ballet, contemporary, world dance, and entertainment dance forms. The student will attend a minimum of two live dance performances. Expense for tickets is the student's responsibility. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Dance 201AD—Rehearsal and Performance (1)**

**Prerequisite:** Eligibility based on successful audition. Auditions held throughout the semester prior to this class. Structured rehearsal time (36-40 hours) culminating in performance. Offered on a credit-no credit basis only. Three hours lecture, nine hours activity. **Transfer Credit: CSU; UC.**

**Dance 203AD—Performing Dance Ensemble (3)**

**Prerequisite:** Eligibility based on successful audition. **Corequisite:** Dance 101AD or 110AD or 120AD or 125AD.

**Recommended preparation:** intermediate dance skills in jazz or ballet or modern or tap or other dance forms. This recommended preparation will be validated in class during the first week of the course.

Performing Dance Ensemble provides an opportunity for intermediate and advanced level dancers to improve their performing skills in structured rehearsal time, culminating in performances in high schools and the community. This course will be scheduled fall and spring semesters with the majority of performances occurring in the spring semester. May be taken for grades or on a credit-no credit basis. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 205—Dance as a Profession Seminar (2) (4-16 week course)**

For students planning a career in dance, including dance-related career options, auditions, resumes, photos, video presentations, contracts, choreography and performance fees, resources, and other aspects of professional dance. Guest lecturers and field trips will be included. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

**Dance 206—Introduction to Dance Technology (2)**

Designed for dancers to gain basic skills in computer technology applied specifically to the field of dance education, choreography, and research. Web design, CD-ROM, motion capture, software programs, and graphic presentations related to dance will be included. The student will create a personal dance web page. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively. Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Dance 208—Advanced Pilates Seminar (1.5-3) (3-6 week course)**

**Prerequisite:** Intermediate level skills in Pilates mat and reformer work. This prerequisite will be validated in class during the first week of the course.

**Recommended preparation:** Dance 108AD.

Designed for students with intermediate to advanced-level Pilates skills. This course will present advanced-level Pilates skills, principles of movement facilitation, core stabilization, and re-education applied to mat work and to the equipment used in teaching the Pilates Method. This course will involve participatory labs and skill demonstrations. May be taken for grades or on a credit-no credit basis. Six hours lecture, six hours non-lecture. **Transfer Credit: CSU; UC.**

**Dance 210—Dance Methodology (2.5)**

**Prerequisite:** Intermediate to advanced level skills in dance technique (either modern dance, jazz or ballet). This prerequisite will be validated in class during the first week of the course.

**Recommended preparation:** Dance 150AD or 160.

Designed for dance students to learn how to teach classes in dance technique and creative movement for adults or youth in a variety of settings. Two hours lecture, one hour non-lecture, one hour arranged. **Transfer Credit: CSU.**

**Dance 211AD—Repertoire (1-4)**

**Corequisite:** Dance 101AD or 110AD or 120AD or 125AD or 130AD or 135AD or 137AD.

**Recommended preparation:** Intermediate dance skills in modern, ballet, jazz, tap, Mid-Eastern, flamenco or classical dance of India.

Designed to introduce students to rehearsal and performance skills and responsibilities. An opportunity for a dancer to learn and perform the choreography of another student, teacher, or guest artist. May be taken for grades or on a credit-no credit basis. One-half to two hours lecture, one and one-half to six hours activity. **Transfer Credit: CSU; UC.**

**DENTAL ASSISTING**

**Dental Assisting 100—Dental Anatomy (2)**

Anatomical structures of the head and neck. Emphasis on tooth growth, development, and their surrounding structures. Morphology of permanent and primary teeth. Identification of types of occlusions and related terminology. Two hours. **Transfer Credit: CSU.**

**Dental Assisting 110—Chairside Techniques 1 (3)**

**Prerequisite:** Dental Assisting 120 and 150. Four-handed dentistry. History of the dental profession. Charting, sterilization procedures, utilization and maintenance of dental operator equipment. Laboratory experience includes basic application of operative procedures. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Dental Assisting 115—Chairside Techniques 2 (2) (14 week course)**

**Prerequisite:** Dental Assisting 110 and 150.

**Corequisite:** Dental Assisting 125.

A continuation of chairside techniques. Emphasis on dental specialties and application of coronal polishing. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Dental Assisting 120—Dental Materials (3)**

**Corequisite:** Dental Assisting 110.

A comprehensive study of materials related to restorative procedures. Emphasis on characteristics, composition, and use. Laboratory exercises include manipulation of restorative materials, gypsum products, impression materials, waxes, and compounds. Includes taking and pouring of impression and construction of casts. Casting and investing demonstration. Trimming models, construction of acrylic trays and temporaries. One and one-half hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Dental Assisting 125—Expanded Functions (2) (14 week course)**

**Prerequisite:** Dental Assisting 110 and 120.

**Corequisite:** Dental Assisting 115 and 165.

Emphasis on expanded functions for the dental assistant and registered dental assistant. Laboratory practice and evaluation. One and one-half hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Dental Assisting 130—Preventive and Community Dentistry (1) (8 week course)**

**Corequisite:** Dental Assisting 150.

Discussion of current concepts of preventive dentistry. Nutrition, oral hygiene techniques and home care are covered in detail. Psychology of the dental auxiliary, dental team and dental patient are presented. Includes community dental project. Two hours. **Transfer Credit: CSU.**

**Dental Assisting 140—Dental Radiography 1 (3)**

**Corequisite:** Dental Assisting 100, 110 and 150.

A study of the principles of x-ray production, physics, biological effects, radiation safety procedures and monitoring. Film identification processing and mounting procedures and introduction to the bisection technique and practical application are presented. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

## Dental Assisting 145—Dental Radiography 2 (2) (14 week course)

**Prerequisite:** Dental Assisting 140 and 163.

**Corequisite:** Dental Assisting 165.

In-depth study of bisecting and paralleling techniques employed in intraoral radiographs. Analysis and correction of techniques and processing errors, clinical laboratory experience, bisecting and paralleling techniques for various radiographic examinations. Film processing and mounting. One hour lecture, three hours laboratory.

**Transfer Credit:** CSU.

## Dental Assisting 150—Biomedical Sciences (2)

**Corequisite:** Dental Assisting 110 and 160.

An introduction to general anatomy and physiology including microbiology, study of pharmacology, oral pathology, and basic fundamentals to prepare the student to recognize and assist in dental emergencies. Two hours.

**Transfer Credit:** CSU.

## Dental Assisting 160—Clinical Experience 1 (1) (8 week course)

**Corequisite:** Dental Assisting 120, 130, and 140.

An introduction to clinical dentistry for the beginning dental assisting student. Each student will be assigned to a dental office. Students are required to follow the dress code standards set up by the program and ADA guidelines. Offered on a credit-no credit basis only. One hour seminar, eight hours clinical. **Transfer Credit:** CSU.

## Dental Assisting 163—Clinical Experience 2 (1) (2 week course)

**Prerequisite:** Dental Assisting 160.

The second clinical experience in dentistry for the beginning dental assisting student. Each student will be assigned to a dental office. Students are required to follow the dress code standards set up by the program and ADA guidelines. Offered on a credit-no credit basis only. Twenty-four hours clinical. **Transfer Credit:** CSU.

## Dental Assisting 165—Clinical Experience 3 (2.5) (14 week course)

**Prerequisite:** Dental Assisting 163.

**Corequisite:** Dental Assisting 115, 145, and 175.

The third in a series of opportunities for clinical practice of concepts in dental assisting. Each student will be assigned to a dental office for either general dentistry or a specialty practice. Students are required to follow the dress code standards set up by the program and ADA guidelines. Offered on a credit-no credit basis only. One hour seminar, eight hours clinical. **Transfer Credit:** CSU.

## Dental Assisting 168—Clinical Experience 4 (1) (2 week course)

**Prerequisite:** Dental Assisting 165.

Student will be placed in a selected dental office for practical application of dental assisting procedures. Students are required to follow the dress code standards set up by the program and ADA guidelines. Offered on a credit-no credit basis only. Thirty-two hours clinical. **Transfer Credit:** CSU.

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Dental Assisting 175—Principles of Business and Practice Management (1.5) (14 week course)

**Prerequisite:** Dental Assisting 100.

An introduction to dental business office procedures, including dental records and charting, making appointments, banking, tax deductions (salary), communication, malpractice claims, payment plans, and insurance forms. Two hours. **Transfer Credit:** CSU.

## DESIGN

### Design 100—Design Exploration (3)

An interdisciplinary foundation course that introduces the basic elements and principles of design. The students will develop strategies and skills in problem solving, design communication, and design critique to use in their design major such as art, graphics, digital media, architecture, fashion, and interiors. Three hours. **Transfer Credit:** CSU.

### Design 105—Design Careers and Lifestyles (2)

A career exploration course designed to help students choose a career in a design-related discipline such as art, architecture, graphics, fashion, interiors, theatre, industrial, or furniture. Emphasis on personal, educational, and professional qualifications required for entry into a design-related career. Two hours. **Transfer Credit:** CSU.

### Design 106AD—Design Careers Connection (.5) (4 week course)

**Prerequisite:** Design 105.

Career exploration in design-related careers such as architecture, interior design, fashion design, graphic design, multimedia design, and industrial design. Students will job shadow a design professional and experience job-related activities and responsibilities. Offered on a credit-no credit basis only. Five hours field experience. **Transfer Credit:** CSU.

## DIAGNOSTIC MEDICAL SONOGRAPHY

### Diagnostic Medical Sonography 150—Sonographic Physics and Instrumentation (4.5)

**Prerequisite:** Allied Health 111.

Physics of diagnostic sonography. Instrumentation, equipment design, and application. Four hours lecture, two hours laboratory. **Transfer Credit:** CSU.

### Diagnostic Medical Sonography 155—Introduction to Vascular Ultrasound (2.5)

**Prerequisite:** Diagnostic Medical Sonography 150.

Introduction to Doppler (color flow) including a hands-on approach. Overview of normal and pathological data in regards to peripheral vascular, abdominal vasculature, carotid. Two hours lecture, two hours non-lecture.

**Transfer Credit:** CSU.

### Diagnostic Medical Sonography 165—Introduction to Scanning Practice (3)

**Prerequisite:** Diagnostic Medical Sonography 150

**Corequisite:** Biology 226, Diagnostic Medical Sonography 155.

Introduction to sonographic scanning protocol as applied to clinical practice. Course includes environment of department, emphasis on professionalism, student behavior, medico-legal aspects, and humanistic approach to patients. Two hours lecture, three hours laboratory.

**Transfer Credit:** CSU.

### Diagnostic Medical Sonography 166—DMS Clinical Experience 1 (2)

**Prerequisite:** Allied Health 115

**Corequisite:** Diagnostic Medical Sonography 165.

Introduction to clinical setting and exposure to departmental organization, patient flow, darkroom and processing procedures, observation of techniques employed, policies and procedures of clinical cases. Offered on a credit-no credit basis. Eight hours clinical. **Transfer Credit:** CSU

### Diagnostic Medical Sonography 167—DMS Clinical Experience 2 (5) (8 week course)

**Prerequisite:** Diagnostic Medical Sonography 166.

Continuation of clinical experience. Exposure to departmental organization, patient flow, darkroom and processing procedures, observation of techniques employed, policies and procedures of clinical cases, beginning hands-on experience, and equipment set-up. Offered summer only. Offered on a credit-no credit basis only. Forty hours clinical. **Transfer Credit:** CSU.

### Diagnostic Medical Sonography 255—Advanced Vascular Ultrasound (2.5)

**Prerequisite:** Diagnostic Medical Sonography 155.

Advanced Doppler with hands-on approach; physiological arterial testing of the lower and upper extremities with pathological correlation. Two hours lecture, two hours laboratory. **Transfer Credit:** CSU.

### Diagnostic Medical Sonography 265—Pathophysiology (4)

**Prerequisite:** Biology 223

**Corequisite:** Biology 226.

Specific study of pathology and pathophysiological mechanisms related to diagnostic medical sonography. Four hours. **Transfer Credit:** CSU.

**Diagnostic Medical Sonography 271—DMS Clinical Experience 3 (7)**

**Prerequisite:** Diagnostic Medical Sonography 167

**Corequisite:** Diagnostic Medical Sonography 265, 274 and 275.

Clinical experience in ultrasound. Equipment handling and patient management. Departmental operation and scope. Offered on a credit-no credit basis only. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Diagnostic Medical Sonography 274—Sonographic Scanning Techniques 1 (3) (8 week course)**

**Prerequisite:** Diagnostic Medical Sonography 165.

Interpretation of normal anatomy, sonographic and gross anatomy, comparing one disease to another and what to identify in the sonographic images. Six hours. **Transfer Credit: CSU.**

**Diagnostic Medical Sonography 275—Sonographic Scanning Techniques 2 (3) (8 week course)**

**Prerequisite:** Diagnostic Medical Sonography 274.

Review of advanced scanning techniques. Interpretation of normal and pathologic anatomy. Six hours. **Transfer Credit: CSU.**

**Diagnostic Medical Sonography 276—DMS Clinical Experience 4 (2) (4 week course)**

**Prerequisite:** Diagnostic Medical Sonography 271.

Intermediate clinical experience. Studies in the abdomen, small parts, and pelvis. Variety of real-time equipment, anatomical pathology recognition. Offered on a credit-no credit basis only. Forty hours clinical. **Transfer Credit: CSU.**

**Diagnostic Medical Sonography 281—DMS Clinical Experience 5 (9)**

**Prerequisite:** Diagnostic Medical Sonography 276.

Advanced clinical experience in the ultrasound department practicing in a variety of sonographic studies with emphasis on the abdomen and pelvis. Recognition of pathology and scan interpretation are emphasized. Offered on a credit-no credit basis only. Thirty-six hours clinical, one hour seminar. **Transfer Credit: CSU.**

**DIETETIC TECHNOLOGY**

*(See Nutrition Care and/or Food Service Management)*

**DIGITAL MEDIA ARTS AND DESIGN**

**Digital Media Arts and Design 115—Lettering and Digital Typography (4)**

This course covers the history and development of basic letterforms, with calligraphic origins. Lettering as a design form is emphasized. Hand lettering logotype, symbol, and digital typography will be discussed from the professional's point of view. Class projects oriented toward portfolio samples. Recommended for Digital Media Arts & Design majors, as well as practicing art professionals. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Digital Media Arts and Design 117—Rapid Illustration Techniques (4)**

Course expands upon freehand drawing skills. Illustration methods of determining design solutions and as final presentations. Techniques drawn from areas of graphic and advertising design, industrial design and interior design. Emphasis on acquiring pieces suitable for student's portfolio. Recommended for art majors and practicing professionals. May be taken for grades or on a credit-no credit basis. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Digital Media Arts and Design 150—History of Media Arts (3)**

A critical history of media arts in the 20th and 21st Centuries. The course will examine media arts' roots and developments in the overlapping fields of video art, digital art, and media in performance by artists. Major artists, exhibitions, and critical writings of the period will be surveyed. Three hours. **Transfer Credit: CSU.**

**Digital Media Arts and Design 151—History of Graphic Design (3)**

This course will cover the history and development of graphic design from written communication to current trends as professional and artistic endeavors. The influence of graphic design upon the prevailing culture and the influence of culture upon graphic design will be explored. Three hours. **Transfer Credit: CSU.**

**Digital Media Arts and Design 181—Introduction to Computer Graphics (3)**

Designed to introduce the lay person or computer professional to the rapidly expanding field of computer graphics. The subject will be approached from an application perspective. Course will include guest speakers and field trips. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Digital Media Arts and Design 182AC—Graphic Design (4)**

**Prerequisite:** Digital Media Arts and Design 181.

This course introduces students to the basic concepts and techniques of graphic design to encourage the beginning design student to develop and master the basic conceptual thinking, visual, and technical skills that distinguish graphic designers from desktop technicians. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Digital Media Arts and Design 183—Digital Prepress (4)**

**Prerequisite:** Digital Media Arts and Design 181.

Using industry-standard hardware and software, students will create digital files that, once output, will print correctly on a printing press. The course will explore aspects of page layout, image manipulation, color separation, printing technologies, and output methods. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Digital Media Arts and Design 190—Illustration and Computer Graphics 1 (4)**

**Prerequisite:** Digital Media Arts & Design 181.

Investigation into the use of computer graphics in various disciplines emphasizing illustration and the principles of color and design. Students will complete a portfolio of computer generated graphic designs and illustrations. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

**Digital Media Arts and Design 191AB—Illustration and Computer Graphics 2 (4)**

**Prerequisite:** Digital Media Arts & Design 190.

Further investigation into the use of illustration and computer graphics as studied in Digital Media Arts & Design 190. Existing software will be used to generate a more specialized portfolio of computer art. Lectures and demonstrations familiarize students with advanced techniques in computer graphics with an emphasis on output. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

**Digital Media Arts and Design 193—Photography and Graphics with Photoshop 1 (4)**

**Prerequisite:** Photography 120 and 125 or Digital Media Arts & Design 181.

This course integrates photography, art, design, and computer graphics processes and images. Lectures and demonstrations familiarize students with image processing software which alters photographs. Students will learn basic digital retouching skills, as well as image processing techniques. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

**Digital Media Arts and Design 195AC—Photography and Graphics with Photoshop 2 (4)**

**Prerequisite:** Digital Media Arts & Design 193 or Photography 125.

Lectures and demonstrations to familiarize students with advanced techniques in digital photography and image manipulation. Both fine art and commercial applications are covered. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Digital Media Arts and Design 200AB—Interactive Multimedia (4)**

**Prerequisite:** Digital Media Arts & Design 181.

**Recommended preparation:** Digital Media Arts & Design 193 or 262AC or 280AC.

Explore the merger of traditional media, such as video, photography, books, and audio by use of interactive multimedia. An interactive authoring language will be used to access all the media capabilities of the computer. The course is designed for students coming from different backgrounds, such as photography or computer graphics. Instruction is offered at the beginning and intermediate levels. Concentration on Internet production and related issues. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

**Digital Media Arts and Design 201AD—Interactive Master Class (4)**

**Prerequisite:** Digital Media Arts & Design 200AB.

The use of the authoring tools necessary to achieve artistic mastery of interactive media will emphasize advanced techniques in interface design, authoring, scripting, programming, and communicating on the Internet. Students will create their own large interactive multimedia program. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

## Digital Media Arts and Design 262AC—Image Processing for Digital Video (4)

**Prerequisite:** Digital Media Arts & Design 181 and Film/Video 110.

Students learn the art of combining computer generated imagery with digital video to create fine art and commercial videos as seen on television and in music videos. Students will create their own videos on the computer using transitions, filters, alpha channels and keying effects, and digital animation. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

## Digital Media Arts and Design 263AC—Digital Video Compositing (4)

**Prerequisite:** Digital Media Arts & Design 262AC or Film/Video 194.

Students will develop skills in the art of digital video compositing which is used in motion pictures, television, advertisements, and music videos to create new art forms. The ability to layer photography, video, text and graphics, and audio in complex ways gives the digital video artist complete control over the media. Masking with Bezier curves, keying, layering, transparency, and 3D controls allow compositions to be carefully controlled in a time based media. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

## Digital Media Arts and Design 264AC—Documentary Video (4)

**Prerequisite:** Digital Media Arts & Design 262AC or Film/Video 240 or Film/Video 265AD.

This course combines a critical investigation of both film and video documentary works with the production of student projects. Students will assess the philosophical and conceptual stances of the documentarian, as well as fine tune skills in camera technique, editing, and development of the narrative. May be taken for grades or on a credit-no credit basis. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

## Digital Media Arts and Design 265AD—Sound in Multimedia (4)

**Prerequisite:** Digital Media Arts & Design 181.

An introduction to digital audio production as applied to multimedia projects. The course investigates the concepts of "sound" and "hearing" and the digital processing of sound while surveying the history of electronic sound experimentation, electronic music, and technique. Recording, processing, editing, and compositing will be covered, as well as sound design with web-based multimedia, motion graphics, video, and film. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

## Digital Media Arts and Design 280AC—2D Animation (4)

**Prerequisite:** Digital Media Arts & Design 181.

**Recommended preparation:** Art 120 and Digital Media Arts & Design 190.

An investigation into the theory and practice of computer generated 2D animation. Lectures, demonstrations, and graphic examples introduce students to the technical and creative aspects of 2D animation as seen in communication media. Through classroom assignments students will investigate both commercial and fine art applications. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Digital Media Arts and Design 281AB—3D Computer Graphics Animation (4)

**Prerequisite:** Digital Media Arts & Design 280AC.

Investigation into the practice of 3D temporal image handling utilizing computer graphics technology. Students will explore artistic applications in various fields. Instruction is offered at beginning and advanced levels. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

## DIRECTED STUDIES

*(See Admission and Academic Information Section)*

## DISPLAY AND VISUAL PRESENTATION

### Display and Visual Presentation 180—Introduction to Display and Visual Presentation (3)

This course provides an opportunity to learn display and exhibit design for business and museum/gallery. Areas covered include trade show, hardline product, themed design, space development for store planning, museum exhibition, advertising, and all aspects of visual presentation, to include: window, point of purchase, websites, and packaging. Three hours lecture, two hours laboratory. **Transfer Credit: CSU.**

### Display and Visual Presentation 185—Intermediate Display and Visual Presentation (3)

**Prerequisite:** Display and Visual Presentation 180.

An opportunity to solve design, display and visual presentation problems represented in the community. Students work with local retail centers. An in-depth learning of design and display materials and construction. An increased understanding of the changing attitudes in visual promotion. Marketing affect on display and visual presentations. Introduction to professional organizations. Three hours lecture, two hours laboratory. **Transfer Credit: CSU.**

## DRAFTING TECHNOLOGY

### Drafting Technology 100—Blueprint Reading (3)

This course, taught in a traditional classroom setting or via the Internet, is a study of blueprints that are used in the manufacturing world. Units of instruction include the alphabet of lines, multiviews, dimensions, sections, auxiliaries, and all facets of the print page. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

### Drafting Technology 105—Elementary Drafting - Pencil Graphics (1.5)

Emphasis on elementary drafting practices and procedures using paper and pencil medium. Apply the use of drafting instruments to lettering, sketching, geometric construction, orthographic projections, pictorials, including isometric and oblique. Intended as a preparation course for drafting, architectural, and interior design majors who have not acquired previous drawing or graphic skills. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

### Drafting Technology 110—Basic Drafting Practices (4)

**Prerequisite:** Drafting Technology 150AB.

Emphasis on the fundamentals of drafting practices and procedures, the use of CAD (computer aided drafting) and drafting instruments, lettering, geometric construction, orthographic projections, pictorials, including isometric and oblique, sketching, dimensioning practices, sectioning. Acceptable for transfer and various occupational majors. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Drafting Technology 115—Engineering Drafting Design 1 (4)

**Prerequisite:** Drafting Technology 110.

Use of CAD (computer aided drafting) to complete a thorough review and improvement of drafting practices. Instruction in precision dimensioning and tolerances, weldments, detail and assembly drawings, threads and fasteners, shop processes, machine drawing, sheet metal drawings, and auxiliary drawings. Required for electro/mechanical drafting certificate and mechanical design/drafting certificate. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Drafting Technology 120—Engineering Drafting Design 2 (4)

**Prerequisite:** Drafting Technology 115.

Continuing the engineering design concepts. Included will be specialty design areas used throughout industry: tool design, stress analysis, cam and linkage design, kinematics of motion, modern inking techniques, metrics, etc. For drafting majors only. Engineering majors should take Drafting 115. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Drafting Technology 140—Electro/Mechanical Drafting 1 (2)

**Prerequisite:** Drafting Technology 110.

Present various drawing types used in industry, such as block diagrams, logic diagrams, electronic and electrical symbols and schematics, electronic packaging pertaining to Printed Wiring Boards (PWB), and PWB design software to generate a PWB design. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Drafting Technology 150AB—Basic Computer Aided Design/Drafting (4)**

A beginning computer aided drafting class for architectural, electronic, and mechanical drafters. Students will use an IBM compatible computer with AutoCAD software to develop two-dimensional 'computer drawn' drawings. This course may also be offered online. Online students will be required to have their own copy or access to AutoCAD software. Three hours lecture, four hours laboratory. **Transfer Credit: CSU; UC.**

**Drafting Technology 156—Advanced Computer Aided Design/Drafting—Electro/Mechanical (4)**

**Prerequisite:** Drafting Technology 150AB  
**Recommended preparation:** Drafting Technology 140.  
This is a second semester course which presents an intensive study utilizing a Computer Aided Drafting (CAD) system to obtain graphic solutions, design refinements, modifications and delineations of electro-mechanical drawings. The course emphasizes high technology skills which are necessary to function as an entry level CAD operator in the field of electronics. Students use IBM computers with AutoCAD software. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

**Drafting Technology 157—Advanced Computer Aided Design/Drafting—Mechanical (4)**

**Prerequisite:** Drafting Technology 150AB  
**Recommended preparation:** Drafting Technology 120 or concurrent enrollment.  
This is a second semester course which presents an intensive study utilizing a Computer Aided Drafting (CAD) system to obtain graphic solutions, design refinements, modifications and delineations of working technical mechanical drawings. The course emphasizes basic high technology skills which are necessary to function as an entry level CAD operator in the field of mechanical design drafting. Students use IBM Computers with AutoCAD software. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

**Drafting Technology 158—Advanced Computer Aided Design/Drafting—Architectural (4)**

**Prerequisite:** Drafting Technology 150AB  
**Recommended preparation:** Architectural Technology 180 and 185.  
This is a second semester course which presents an intensive study utilizing a Computer Aided Drafting (CAD) system to obtain graphic solutions, design refinements, modifications and delineations of architectural drawings. The course emphasizes basic high technology skills which are necessary to function as an entry level CAD operator in the field of architecture. Students use IBM computers with AutoCAD software. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

**Drafting Technology 159AB—Introduction to 3D CAD (4)**

**Prerequisite:** Drafting Technology 150AB.  
**Recommended preparation:** Drafting Technology 156 or 157 or 158 or concurrent enrollment.  
A basic three-dimensional computer aided design/drafting and visualization course for architectural, interior design, and mechanical drafters. Students use PC-based CAD software to develop a series of three-dimensional digital models and presentation drawings. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively. Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Drafting Technology 160—Dimensioning (4)**

**Prerequisite:** Drafting Technology 110.  
Covers basic and precision dimensioning practices, geometric dimensioning and tolerancing according to ASME Y14.5M 1994. A requirement for the drafting technology certificate programs. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Drafting Technology 170AD—Mechanical Solid Modeling (3)**

**Recommended preparation:** Drafting Technology 115, 120, 159, Machine Technology 195, and Computer Information Systems 107.  
An advanced solid modeling design course for mechanical drafters, designers, and engineers. Students will use IBM compatible computers to develop solid model parts, assemblies, drawings, and solutions to mechanical design problems. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**EARLY CHILDHOOD**

**Early Childhood 100AD—Parent/Infant Workshop (1)**

This course is designed for expectant parents or parents of babies not yet walking. Effective ways of encouraging all levels of infant development. Class members will have opportunities to interact with infants in a supervised setting. Offered on a credit-no credit basis only. One hour lecture, one hour workshop activity. **Transfer Credit: CSU.**

**Early Childhood 101AD—Parent/Toddler Workshop (1)**

Laboratory workshop designed for parents and their toddlers. Effective ways of encouraging all levels of development will be presented. Parents will have opportunities to interact with their children in a supervised setting. Offered on a credit-no credit basis only. One hour lecture, one and one-half hour workshop activity. **Transfer Credit: CSU.**

**Early Childhood 102AD—Parent/Child Preschool Workshop (2)**

Workshop designed for parents and their children between the ages of 27 and 60 months. Through active participation with their children in a preschool setting, parents will learn ways of stimulating their child's development, alternative methods of child management, and different styles of adult/child communication patterns. Offered on a credit-no credit basis only. One hour lecture, two hours workshop activity. **Transfer Credit: CSU.**

**Early Childhood 105—Introduction to Early Childhood Education (3)**

This course is designed to introduce students to the field of early childhood education for children birth through age 12. Included are objectives, philosophies, and history of these programs, as well as career opportunities. Field trips will be taken to see the various programs discussed. Three hours. **Transfer Credit: CSU.**

**Early Childhood 126—Cross-Cultural Perspectives on Child Development (3)**

**Prerequisite:** Human Development 180.  
An overview of the different microcultures to which students belong and the importance of understanding their own culture. Microcultures discussed are class, ethnicity and race, gender, exceptionality, and age. Emphasis will be placed on the social and cultural conditions that influence education. Three hours. **Transfer Credit: CSU.**

**Early Childhood 130—Language Arts in the Preschool (3)**

**Prerequisite:** Human Development 180 or concurrent enrollment.  
This course covers the development of literacy skills in children ages birth to 5 years. Included are activities such as book selection, story telling, finger plays, flannel stories, language centers, early writing, alphabetic and phonemic awareness. Three hours. **Transfer Credit: CSU.**

**Early Childhood 131—Creativity for Children (3)**

**Prerequisite:** Human Development 180.  
Methods for fostering creativity in children and teachers. Emphasis will be on cultivating music and art expression through application of developmental theory. TB clearance required. Two hours lecture, one hour laboratory, two hours arranged. **Transfer Credit: CSU.**

**Early Childhood 132—Science for Young Children (3)**

**Prerequisite:** Human Development 180.  
Physical and natural science activities that encourage children's thinking and problem solving skills. Emphasis on the development of programs and materials that allow for exploration and/or experimentation. The course also covers the development of physical and logico-mathematical knowledge. A portion of the course will cover food and nutrition. Three hours. **Transfer Credit: CSU.**

**Early Childhood 155—Early Childhood Development Through Play (3)**

**Prerequisite:** Human Development 180.  
Use of play in the classroom to support the developing child. Emphasis on the value of play as a tool for learning in the cognitive, psycho-social and physical domains. Includes role of the teacher, role of the environment and characteristics of developmentally appropriate programs. Three hours. **Transfer Credit: CSU.**

## Early Childhood 156—Early Childhood Laboratory (2)

**Prerequisite:** Early Childhood 155.

Beginning practical experiences that focus on establishing relationships with children and developing guidance, observation, play entry, and collaboration techniques in facilitating learning. TB clearance required. Fingerprint, criminal record and child abuse index check required. One hour lecture, three hours laboratory. **Transfer Credit:** CSU.

## Early Childhood 157—Guidance for Young Children (3)

**Prerequisite:** Early Childhood 155.

Course covers theories of behavior, guidance techniques, and parent communication. Emphasis on developing an understanding of children's behavior and encouraging positive esteem while helping the child work toward self-control. Three hours. **Transfer Credit:** CSU.

## Early Childhood 165—Observing and Recording Child Behavior (2) (12 week course)

**Prerequisite:** Human Development 180.

A variety of observation tools, individual anecdotal and running records, time and event samplings, checklists, rating scales and case studies are discussed and practiced. TB clearance required. Three hours lecture, one and one-half hours laboratory. **Transfer Credit:** CSU.

## Early Childhood 174—Building Partnerships with Families (3)

Practical approaches to building relationships with parents through effective communication techniques and supporting families of children with identified or suspected special needs. Three hours. **Transfer Credit:** CSU.

## Early Childhood 199AD—Current Issues in Early Childhood (.5-2) (1-8 week course)

Current issues in the field of early childhood education, rotating through a variety of topics, such as working with parents, public policy, and curriculum updates. May be taken for grades or on a credit-no credit basis. Four to nine hours. **Transfer Credit:** CSU.

## Early Childhood 200—Preschool Programs—The Curriculum (3)

**Prerequisite:** Early Childhood 155.

Curriculum planning for preschool programs based on the individual developmental needs of the child. Emphasis on the importance of observations, schedule, routines, and parent communication. Introduction to the philosophy and history of early childhood education. Three hours. **Transfer Credit:** CSU.

## Early Childhood 201—Early Childhood Field Experience (3)

**Prerequisite:** Early Childhood 200, or concurrent enrollment, and Early Childhood 156.

Practical experiences in preschool programs that focus on the individualized curriculum that addresses all areas of development, routines, and the role of the teacher. Course also covers observation and evaluation of children in play situations, the development of indoor and outdoor environments, positive guidance techniques, and staff relationships. TB clearance required. Two hours lecture, six hours field experience. **Transfer Credit:** CSU.

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Early Childhood 211—CDA Portfolio for Classroom Teachers (3)

Preparation of portfolio to demonstrate competency in meeting the specific needs of children in an early childhood classroom as required for the Child Development Associate credential. Approved for Head Start program. Three hours. **Transfer Credit:** CSU.

## Early Childhood 218—Infant/Toddler Curriculum (2) (12 week course)

**Prerequisite:** Early Childhood 220.

Planning indoor and outdoor infant/toddler curriculum based on children's interests. Focus on documentation, evaluation, communication of curriculum goals, and children's progress with emphasis on making adaptations for the child with special needs. Three hours. **Transfer Credit:** CSU.

## Early Childhood 220—Infant/Toddler Programs (3)

**Prerequisite:** Human Development 184.

Various kinds of programs for infants and toddlers, including philosophies and program emphasis, appropriate routine learning experiences, environments, and provisions for the health and safety of infants and toddlers. Focus on the role of teacher in facilitating the child's growth through play. Three hours. **Transfer Credit:** CSU.

## Early Childhood 221—Infant and Toddler Field Experience (3)

**Prerequisite:** Human Development 184 and Early Childhood 218 or concurrent enrollment.

Participation in day care and half-day programs for infants and toddlers. TB clearance required. Two hours lecture, seven hours field/clinical. **Transfer Credit:** CSU.

## Early Childhood 229—School-Age Creative Activities (3)

**Prerequisite:** Human Development 182.

School-age movement, recreation, and creative activities suitable for after school child care. The course also includes planning and implementing an appropriate program. Two hours lecture, one hour non-lecture, two hours arranged. **Transfer Credit:** CSU.

## Early Childhood 230—Early Primary Curriculum: Materials and Methods (3)

**Prerequisite:** Human Development 182.

Developmental characteristics of the child age 5-8 years. Course covers cognitive learning theory, developmentally appropriate curriculum practices, role of the teacher, staff relationships, and parent communication. Three hours. **Transfer Credit:** CSU.

## Early Childhood 231—School-Age Field Experience (3)

**Prerequisite:** Early Childhood 229.

Assigned participation in routines and activities in after-school child care programs. TB clearance required. Two hours lecture, six hours non-lecture. **Transfer Credit:** CSU.

## Early Childhood 232—Primary Aide Field Experience (3)

**Prerequisite:** Early Childhood 230 or concurrent enrollment.

The student will participate in routines and activities in an early primary school classroom. TB clearance required. Two hours lecture, six hours non-lecture. **Transfer Credit:** CSU.

## Early Childhood 240—Inclusion of Children with Disabilities (3)

**Prerequisite:** Human Development 210.

This course will explore the inclusion of infants, toddlers, and children with special needs in early childhood settings. Topics will include foundations of inclusive practices, assessing disability services, collaborating with specialists, and specific strategies for the classroom. Three hours. **Transfer Credit:** CSU.

## Early Childhood 241—Field Experience with Children with Special Needs (3)

**Prerequisite:** Early Childhood 240.

Participation with children with special needs in local schools and agencies. The student will develop specific techniques used by parents, staff, and care providers, and will work with an early intervention specialist to follow children's service plans in a natural environment. TB clearance required. Two hours lecture, six hours field experience. **Transfer Credit:** CSU.

## Early Childhood 261—Learning Title 22 (.5) (1-8 week course)

Point by point discussion of California Code of Regulations, Title 22, Division 12, Chapters 1 and 2 regulations for child care program. Offered on a credit-no credit basis only. One to nine hours. **Transfer Credit:** CSU.

## Early Childhood 262—Disaster Preparedness for Child Care (.5) (1-8 week course)

A study of considerations of natural or man-made disasters to assist child care providers in the development of a comprehensive plan to ensure an effective response to emergency situations. Offered on a credit-no credit basis only. One to nine hours. **Transfer Credit:** CSU.

## Early Childhood 263—Child Abuse I.D. and Referral (.5) (1-8 week course)

Ways to identify children who are abused and programs to assist both the child and the offender. Discussion of state mandated reporting system and procedures in record-keeping for the teacher and director in a child care program. Offered on a credit-no credit basis only. One to nine hours. **Transfer Credit:** CSU.

**Early Childhood 275—Early Childhood Administration—Program (3)**

**Prerequisite:** Early Childhood 200 or 220 or 229.

Supervision and administration of an early childhood program with emphasis on theories, principles, concepts of program and curriculum development, legal, financial, and administrative policies, and program evaluation. Three hours. **Transfer Credit: CSU.**

**Early Childhood 276—Early Childhood Management (3)**

**Prerequisite:** Early Childhood 275.

Supervision and administration of an early childhood program with emphasis on leadership, personnel management, communication, problem solving, working with parents, financial, and ethical issues. Three hours. **Transfer Credit: CSU.**

**Early Childhood 277—Adult Supervision in Early Childhood Programs (2) (12 week course)**

**Prerequisite:** Early Childhood 200 or 220 or 229 or 240.

Methods and principles of supervising adults in early childhood programs. Emphasis on the role of experienced teachers who function as mentors while simultaneously addressing the needs of children, parents, and staff. Three hours. **Transfer Credit: CSU.**

**ECOLOGY**

*(See Biology)*

**Ecology 100—Environment and Man (3)**

A lecture course which includes the physical and biological components of the environment, their interrelationships, and the human population influence on these components. Physical, biological and political means of reversing environmental deterioration will be considered, as well as conservation and management of natural resources. The course is suitable as a general education elective for the non-science major and also for students in environmental science or other natural sciences. Three hours. **Transfer Credit: CSU; UC.**

**Ecology 121—Marine Intertidal Ecology (1) (8 week course)**

Aspects of the marine intertidal environment of Southern California. A field oriented laboratory experience for non-biology majors. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

**Ecology 124—Ecology of the Gray Whale (1) (8 week course)**

Ecology and history of the California Gray whale. Completion qualifies students as docents on whale watching boats. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**ECONOMICS**

**Economics 100—Economics: General Concepts (3)**

Provides the student with a general understanding of the concepts, principles, and methods of microeconomics and macroeconomics at the introductory level. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Economics 110—Consumer Economics (3)**

An applied approach to the problems and possibilities confronting the consumer in today's economy. Emphasis is placed on the development of skills in personal financial planning: decision making, use of credit and principles of saving and investment. Special attention is given to the problems in housing, transportation, health services, and insurance. Issues of personal taxation, government regulation, and environmental protection are considered in relation to consumer interest. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**ECONOMICS 177—Economic History of the United States (3)**

The economic history of the United States from the colonial period to the present. Emphasis is placed upon factors and forces contributing to American economic development and attempted solutions to economic problems. Satisfies the CSU requirement in American history. Same as History 177. Students completing Economics 177 may not receive credit for History 177. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Economics 180—Macroeconomics (3) (CAN ECON 2)**

An introduction to the principles and problems of macroeconomics. Covers economic concepts and principles as applied to markets, national income, unemployment, inflation, economic growth, fiscal and monetary policy, banking, the Federal Reserve System, and international economics. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

**Economics 185—Microeconomics (3) (CAN ECON 4)**

An introduction to the principles and problems of microeconomics. Covers economic concepts and principles as applied to markets, analysis of costs, consumer behavior, determining consumer optimum conditions, behavior of producers, determining the producers optimum in the goods and services market and in the factors markets, the structure of markets and how they influence and limit competition, labor, capital, information and entrepreneurship, public goods, and international economics. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

**EDUCATION**

*(See also Psychology)*

**Education 102—Teaching in Diverse Contemporary Classrooms (1)**

Introduction to teaching and learning skills for potential teachers. This course will address the qualities of an effective teacher, components and purposes of an effective professional portfolio, and critical issues in diverse contemporary classrooms. May be taken for grades or on a credit-no credit basis. One hour lecture, one hour non-lecture, ten hours arranged fieldwork. **Transfer Credit: CSU; UC.**

**Education 200—The Teaching Profession (3)**

**Prerequisite:** Eligibility for English 100.

**Recommended preparation:** Education 102.

Examination of opportunities, requirements, responsibilities, and rewards in teaching. Skills needed and problems encountered in the classroom will be covered. May be taken for grades or on a credit-no credit basis. Two hours lecture, forty hours arranged fieldwork. **Transfer Credit: CSU; UC.**

**ELECTRONIC MEDIA**

*(See Digital Media Arts)*

**ELECTRONICS TECHNOLOGY**

**Electronics Technology 047—Electronic Problem Solving (3)**

Topics from basic algebra and trigonometry will be applied toward the solution of both DC and AC passive circuitry problems. Three hours.

**Electronics Technology 135—Introduction to Digital Logic (3.5)**

This course introduces digital logic and circuits that are used to build processors. Topics include numbering systems, sequential circuits, electrical properties of logic gates, synchronous circuits, and computer circuits. Three hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

**Electronics Technology 140—Technical Electronics (3)**

An introduction to electronics using simple mathematics. Students learn schematic symbols and their use in wiring diagrams. Emphasis is on the operation of basic electronic circuits and various components. Students investigate circuitry by performing basic test procedures. Two hours lecture-demonstration, two hours laboratory. **Transfer Credit: CSU.**

## Electronics Technology 146AD—Introduction to Basic Computer Installation (3)

This course will teach the student how to connect peripheral devices to a PC, upgrade and build computers with the hardware and software provided in class, and troubleshoot common problems. The student will prepare a rescue kit for their home computer. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

## Electronics Technology 150—D. C. Circuits (3)

**Prerequisite:** Electronics Technology 047 or concurrent enrollment.

Principles of D.C. circuitry. Analysis of circuits covers simple D.C. circuits with Ohm's Law, series, parallel D.C. circuits. Lab work covers operation of electronic voltmeters and power supplies. Students with credit for Electronics Technology 180 may not receive credit for Electronics Technology 150. Two and one-half hours lecture, two hours laboratory. **Transfer Credit: CSU.**

## Electronics Technology 155—A.C. Circuits (3)

**Recommended preparation:** Electronics Technology 150.

Principles of A.C. circuitry. Analysis of circuits covers A.C. circuits with reactance and impedance, series and parallel resonance, and transient circuits with time constant concepts. Lab work covers operation of electronic voltmeters, oscilloscopes, power supplies, and signal generators for circuit measurements. Students with credit for Electronics Technology 180 may not receive credit for Electronics Technology 155. Two and one-half hours lecture, two hours laboratory. **Transfer Credit: CSU.**

## Electronics Technology 170—Electronic Construction (3)

Skill development in the areas of safety, recognition and reading of various schematic, wiring and servicing diagrams, component familiarization and testing, use of hand tools as they apply to soldering, desoldering, wiring and electronic assembly, use of equipment to test and trouble shoot electronic circuitry. Students are provided the opportunity to incorporate all these skills in the building of a final project which involves printed circuit board assembly, testing, troubleshooting, and packaging. Students must furnish safety glasses. Two hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

## Electronics Technology 215—Communications Systems (3)

**Prerequisite:** Electronics Technology 160 or Aviation Maintenance Technology 182.

A study of basic communications systems, including AM, FM, television, radar, antennas, and transmission lines. Three hours. **Transfer Credit: CSU.**

## Electronics Technology 245—Applied Digital Circuits (4)

**Prerequisite:** Electronics Technology 135.

An advanced course designed to develop hands-on skills and knowledge of integrated circuits commonly used in digital systems and microcomputers. Emphasis is on the Z80 microprocessor. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Electronics Technology 246—Computer Installation and Repair (3)

**Prerequisite:** Electronics Technology 135 and 155.

Overview of personal computer microprocessor, motherboard and peripheral interfaces. Troubleshooting techniques leading to the identification and solution of hardware and software problems. Replacement of some components and most peripheral devices. Two hours lecture, two and one-half hours laboratory. **Transfer Credit: CSU.**

## Electronics Technology 253AB—Programmable Logic Controller (1.5) (8 week course)

**Recommended preparation:** Electronics Technology 150.

Introduction to ladder logic programming applied to PLC's. Coursework covers writing programs, installation, and wiring of PLC modules and racks to external sensors and loads. Initialization, setup, program loading, system monitoring, and debugging are covered. Laboratory covers PC to PLC interface, program run, monitoring, and use of DMM in system troubleshooting. Two and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

## Electronics Technology 260—Analog Semiconductor Circuits (4)

**Prerequisite:** Electronics Technology 150 and 155.

Fundamentals and applications of semiconductor circuits, including power supplies, voltage and power amplifiers, diodes, and transistors. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

## Electronics Technology 290—Electronic Troubleshooting (3)

**Prerequisite:** Electronics Technology 135 and 170.

A course focusing on the technician's approach to circuit fault diagnosis. Applications of various test equipment necessary to troubleshoot to component level will be discussed. Both single and multi-stage devices will be examined in analog and digital systems. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

## EMERGENCY MEDICAL TECHNOLOGY

### Emergency Medical Technology 100—Emergency Medical Care (3)

First responder (advanced first aid and cardiopulmonary resuscitation). Upon completion, a First Responder card from the National Safety Council and a Healthcare Provider CPR card will be issued. Three hours. **Transfer Credit: CSU.**

### Emergency Medical Technology 145—Emergency Medical Care for Children (1) (8 week course)

Pediatric CPR, first aid, and preventative health and safety for the licensed child care provider. Completion qualifies the participant for CPR, first aid, and childcare, healthcare, and safety certification. Meets the California Child Care Standards. Two and one-half hours lecture, one-half hour non-lecture. **Transfer Credit: CSU.**

### Emergency Medical Technology 150—EMT-1/Basic (6)

**Prerequisite:** Emergency Medical Technology 100 or First Responder and American Heart Association Healthcare Provider CPR or American Red Cross CPR for professional rescuers. This prerequisite will be validated in class during the first week of the course.

**Corequisite:** Emergency Medical Technology 151.

An overview of the EMT-1/Basic role and responsibilities including the evaluation and treatment of medical emergencies. This would include extrication and transport of the sick and injured patient. Qualifies the graduating student to take the National Registry EMT-B certifying exam. Five hours lecture, two hours laboratory. **Transfer Credit: CSU.**

### Emergency Medical Technology 151—EMT-1 Clinical Internship (.5) (6 week course)

**Corequisite:** Emergency Medical Technology 150.

Application and practice of skills and knowledge gained from EMT 150 in the emergency room of an acute hospital and on a BLS ambulance unit. Offered on a credit-no credit basis only. Three hours clinical. **Transfer Credit: CSU.**

### Emergency Medical Technology 160AD—EMT-1 Recertification (1) (7 week course)

**Prerequisite:** Current EMT-1 certificate or certificate which has not expired by more than four years.

New policies and procedures in life support measures, including CPR techniques and procedures for new equipment. Qualifies the student to sit for the EMT-1 certifying examination. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

## ENGINEERING

### Engineering 180—Engineering Graphics (3) (CAN ENGR 2)

**Prerequisite:** Mathematics 170, or concurrent enrollment.

Graphical representation in the analysis and computation of space problems, empirical data, and mathematical relationships. Two hours lecture, four hours laboratory. **Transfer Credit: CSU; UC.**

### Engineering 270—Computer Programming for Engineering, Mathematics and Sciences (4) (CAN CSCI 20)

**Prerequisite:** Mathematics 157 or 180 or 180H or 182H.

Programming techniques and numerical analysis for digital computers emphasizing applications in science, mathematics, and engineering. Fortran programming with laboratory work on digital computers. Same as Computer Science 270. Students completing Engineering 270 may not receive credit for Computer Science 270. Four hours. **Transfer Credit: CSU; UC.**

**Engineering 280—Statics (3) (CAN ENGR 8)**

**Prerequisite:** Physics 185 and Mathematics 185.

Vector mechanics, covering force diagrams, moment of a force, centroids, beams, trusses, friction, hydrostatics, and moments of inertia. Three hours. **Transfer Credit: CSU; UC.**

**Engineering 285—Engineering Circuits (4) (CAN ENGR 6)**

**Prerequisite:** Physics 280 and Mathematics 185.

Analysis of electric circuits, including DC circuits, network theorems, energy sources, transient analysis, sinusoidal, analysis, phasers, AC power, complex frequency and frequency response of circuits. Lab will include connection of circuits and observation of circuit behavior using electronic instrumentation. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

**ENGLISH**

**Basic Skills**

*Native fluency in English required.*

*Not intended for students in English*

*as a Second Language.*

**English N005AB—Basic Reading Skills (3)**

A sequence of reading lessons for students who wish to improve basic reading skills. May be taken for grades or on a credit-no credit basis. Three hours. Not applicable to AA degree.

**English 050—Introduction to College Reading (3)**

Theory and practice of fundamental reading skills, finding main idea, identifying supporting details, drawing inferences, and increasing rate. Special attention will be given to critical reading and to particular problems in content areas. Recommended for all students. May be taken for grades or on a credit-no credit basis. Three hours.

**English N057—Spelling Techniques (1.5) (8 week course)**

Students will receive training in phonics and spelling patterns, prefix-root-suffix combinations, and homonym discrimination. Applying rules and memory strategies to improve spelling will also be covered. May be taken for grades or on a credit-no credit basis. Three hours. Not applicable to AA degree.

**English N060AB—Grammar (1.5) (8 week course)**

This course is designed to improve awareness (use/skills in) of grammatical structures and terms, specifically parts of speech, sentence structure, agreement, punctuation, and word choice. May be taken for grades or on a credit-no credit basis. Three hours. Not applicable to AA degree.

**English N061—Vocabulary Building 1 (1.5) (8 week course)**

The history of the English language, including the roots and affixes of English words, context clues for vocabulary building and retention. Designed for native speakers of English. May be taken for grades or on a credit-no credit basis. Three hours. Not applicable to AA degree.

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Composition and Related Studies**

**English N098—English Skills (4)**

**Prerequisite:** Appropriate English placement score.

Study skills, reading, vocabulary, grammar, elemental principles of sentence structure, paragraph development, organization of ideas, punctuation and spelling. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. Not applicable to AA degree.

**English 099—Fundamentals of Composition (3)**

**Prerequisite:** English N098 with a grade of 'C' or better OR appropriate English placement score.

Instruction in the fundamentals of grammar, sentence structure, pre-compositional techniques, paragraph development, and essay construction. Practice in reading and textual analysis, critical thinking skills and clear writing. Emphasis on writing structurally varied and grammatically correct sentences and clearly organized, appropriately detailed paragraphs leading to and frequent practice in the construction of the expository essay. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours.

**English 100—Freshman Composition (3) (CAN ENGL 2)**

**Prerequisite:** English 099 or ESL 199AC with a grade of 'C' or better OR appropriate English placement score.

Expository essay writing, reading and analysis, and the application of critical thinking skills. Emphasis upon analytical thinking, clear writing and the reasoned support of ideas. Instruction and practice in choosing a thesis, assembling supporting evidence, analyzing textual materials, organizing and synthesizing information, and developing a clear style and appropriate tone. Includes reading and analysis of published essays, practice in research techniques and the production of a research paper. This course may also be offered online. Four hours. **Transfer Credit: CSU; UC.**

**English 101—Critical Reasoning, Reading, and Writing Through Literature (3) (CAN ENGL 4)**

**Prerequisite:** English 100 with grade of 'C' or better.

Course focuses on critical thinking skills, close textual analysis, and composition of the college essay. Students will apply critical thinking skills and research practices in writing analytical and argumentative essays about literature (fiction, poetry, drama). May be taken as a second composition course following English 100. Four hours. **Transfer Credit: CSU; UC.**

**English 101H—Honors Critical Reasoning, Reading, and Writing Through Literature (3)**

**Prerequisite:** English 100 with grade of 'C' or better.

Course focuses on critical thinking skills, close textual analysis, and composition of the college essay. Students apply critical thinking skills and research practices in writing analytical and argumentative essays about literature (fiction, poetry, drama). May be taken as the second composition course following English 100. Four hours. **Transfer Credit: CSU; UC.**

**English 102—Critical Reasoning, Reading, and Writing Through Nonfiction (3)**

**Prerequisite:** English 100 with grade of 'C' or better.

Course focuses on critical thinking skills, close textual analysis, and composition of the college essay. Students apply critical thinking skills and research practices in reading and writing essays of exposition and argumentation. The literature that serves the development of these thinking, reading, and writing skills is primarily nonfiction that addresses significant human and social issues and that represents various academic fields. May be taken as the second composition course following English 100. This course may also be offered online. Four hours. **Transfer Credit: CSU; UC.**

**English 102H—Honors Critical Reasoning, Reading, and Writing Through Nonfiction (3)**

**Prerequisite:** English 100 with grade of 'C' or better.

Course focuses on critical thinking skills, close textual analysis, and composition of the college essay. Students apply critical thinking skills and research practices in reading and writing essays of exposition and argumentation. The literature that serves the development of these thinking, reading, and writing skills is primarily nonfiction that addresses significant human and social issues and that represents various academic fields. May be taken as the second composition course following English 100. Four hours. **Transfer Credit: CSU; UC.**

**English 105—Technical Report Writing (3)**

**Recommended preparation:** English 099.

Designed to develop skills in the kinds of technical report writing used in industry, emphasizing structure, content, writing, editing, and evaluating. Proposals, progress reports, quality assurance reports, quality control reports, and documented research reports will be covered. Recommended for students in occupational programs and for students exploring technical writing as a career. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**English 108—Introduction to Library Resources (1)**

How to cope with the ever expanding world of information through the use of the library. Designed to develop investigative methods for research useful in any size or type of library. Students may enroll any time during the semester. Offered on a credit-no credit basis only. One hour. **Transfer Credit: CSU; UC.**

## English 109—Critical Reasoning and Writing for Science and Technology (3)

**Prerequisite:** English 100.

Focus on critical thinking skills, close textual analysis and composition of both the scientific college essay and basic technical writing formats. Students apply critical thinking skills and research practices in reading and writing scientific arguments such as persuasive proposals and documented evaluation arguments. The writing that serves the development of these skills is nonfiction that addresses significant scientific and technological issues. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

## English 117AD—Feature Writing (3)

**Prerequisite:** Journalism 110 and English 100 or concurrent enrollment.

A writing workshop focusing on student writing and marketing in-dept non-fiction feature articles. Emphasis will be on guiding students and developing interesting non-fiction stories from the idea stage through publication and finding suitable markets for publication. The course is designed for beginning, intermediate, and advanced writers seeking practice and input in producing lengthy feature articles. Same as Journalism 117AD. Students completing English 117AD may not receive credit for Journalism 117AD. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Creative Writing

### English 119—Introduction to Creative Writing (3) (CAN ENGL 6)

**Prerequisite:** English 099 or English as a Second Language 199AC with a grade of 'C' or better OR appropriate English placement score.

**Recommended preparation:** English 100.

Designed to familiarize the student with creative writing techniques in fiction, poetry, and scriptwriting through close reading of short stories, poetry, plays, and writing exercises. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

### English 121AD—Short Story Workshop (3)

**Prerequisite:** English 099 or English as a Second Language 199AC with a grade of 'C' or better OR appropriate English placement score.

**Recommended preparation:** English 100 and 119.

Emphasizes student production of the short story form and includes readings and lectures on the theory and practice of short story writing. Primarily centers upon discussion and evaluation of student work. Designed for beginning, intermediate, and advanced writers desiring practice in the form. Students will be given the opportunity to submit their work for publication in the Orange Coast Review. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### English 122AD—Novel Workshop (3)

**Prerequisite:** English 099 or English as a Second Language 199AC with a grade of 'C' or better OR appropriate English placement score.

**Recommended preparation:** English 100 and 119.

A course focusing on student production in the novel form with emphasis on discussion, criticism and evaluation of student novel fragments or completed manuscripts. The course is designed for beginning, intermediate, and advanced writers seeking practice and guidance in the novel craft. May be taken for grades or on a credit-no credit basis. Four hours lecture. **Transfer Credit: CSU; UC.**

### English 126AD—Poetry Workshop (3)

**Prerequisite:** English 099 or English as a Second Language 199AC with a grade of 'C' or better OR appropriate English placement score.

**Recommended preparation:** English 100 and 119.

A course emphasizing student writing in poetic forms. The course, which includes lectures and discussions on the theory and practice of poetry, focuses primarily on the discussion and evaluation of student work. This course is designed for beginning, intermediate, and advanced writers seeking practice and guidance in poetry writing. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### English 127AD—Scriptwriting (3)

**Prerequisite:** English 099 or English as a Second Language 199AC with a grade of 'C' or better OR appropriate English placement score.

**Recommended preparation:** English 100 and 119.

This is a writing workshop in which students gain professional insight into scriptwriting techniques for stage, television, and feature films. Students learn how to write a beginning and ending, synopsis, treatment, step outline, and a brief scene designated for the stage, as well as television or the movies. The class focuses on the discussion of student works and their evaluation by the instructor. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

### English 131—Writing Reviews and Criticism (3)

**Recommended preparation:** English 100.

Techniques and principles of writing reviews and criticism. Includes the study of the works of noted critics and involves attendance and notetaking at concerts, play, films, recitals, restaurants, and exhibitions. Students should expect to pay for tickets to at least four events. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours arranged. **Transfer Credit: CSU.**

### English 141—The Bible As Literature (3)

**Recommended preparation:** English 100.

Read, analyze, and write about important texts of the Old and New Testament. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to Bible literature. Appreciate the literary devices and styles evident in the books of the Bible and the commentary made by individual works in the Bible on moral, social, and aesthetic issues. Examine the influence of the Bible on the student's own cultural background. Same as Religious Studies 180. Students completing English 141 may not receive credit for Religious Studies 180. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### English 141H—Honors The Bible As Literature (3)

**Recommended preparation:** English 100.

Read, analyze, and write about important texts of the Old and New Testament. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to Bible literature. Appreciate the literary devices and styles evident in the books of the Bible and the commentary made by individual works in the Bible on moral, social, and aesthetic issues. Examine the influence of the Bible on the student's own cultural background. Same as Religious Studies 180. Students completing English 141H may not receive credit for Religious Studies 180. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### English 143—Children's Literature and Film (3)

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of children's literature. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to children's literature. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of adolescent literature and a survey of art as an integral part of the written story. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### English 143H—Honors Children's Literature and Film (3)

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of children's literature. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to children's literature. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of adolescent literature and a survey of art as an integral part of the written story. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**English 148—Film As Literature (3)**

**Recommended preparation:** English 100.

View, analyze, and write on important foreign and American films. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to film. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of the literary elements of film as opposed to the historical development or production aspects of film. Some discussion of the strengths and weaknesses of adapting novels to films. Typical film makers include Allen, Bergman, Bertolucci, Chabrol, Losey, Lynch, Oshima, Yimou. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

**English 148H—Honors Film As Literature (3)**

**Recommended preparation:** English 100.

View, analyze, and write on important foreign and American films. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to film. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of the literary elements of film as opposed to the historical development or production aspects of film. Some discussion of the strengths and weaknesses of adapting novels to films. Typical film makers include Allen, Bergman, Bertolucci, Chabrol, Losey, Lynch, Oshima, Yimou. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**English 150—American Literature Before the 20th Century (3) (CAN ENGL 14)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of America from the Colonial period through the periods of early Realism and Naturalism. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include indigenous Americans, Apess, Dickinson, Franklin, Poe, Hawthorne, Jacobs, Melville, Thoreau, Twain, Whitman. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**English 150H—Honors American Literature Before the 20th Century (3)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of America from the Colonial period through the periods of early Realism and Naturalism. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include indigenous Americans, Apess, Dickinson, Franklin, Poe, Hawthorne, Jacobs, Melville, Thoreau, Twain, Whitman. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**English 151—American Literature in the 20th Century (3) (CAN ENGL 16)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of America from the early part of the 20th century through the present. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Bishop, Ellison, Faulkner, Frost, Gilman, Ginsberg, Hemingway, Hong Kingston, James, Morrison, O'Connor, Stevens, Wharton. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**English 151H—Honors American Literature in the 20th Century (3)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of America from the early part of the 20th century through the present. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Bishop, Ellison, Faulkner, Frost, Gilman, Ginsberg, Hemingway, Hong Kingston, James, Morrison, O'Connor, Stevens, Wharton. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**English 152—American Ethnic Literature (3)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts by Native, Hispanic, African, and Asian Americans, and other multicultural writers of the United States. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of the ethnic contribution to mainstream American literature, as well as the diversity of the ethnic literary voice. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**English 152H—Honors American Ethnic Literature (3)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts by Native, Hispanic, African, and Asian Americans, and other multicultural writers of the United States. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of the ethnic contribution to mainstream American literature, as well as the diversity of the ethnic literary voice. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**English 156—California Literature (3)**

**Prerequisite:** English 100.

Read, analyze, and write on a range of California literature texts including poetry, essay, drama, short story, and novel. Examine the philosophical, cultural, mythical, religious, and/or historic elements related to these texts. Typical writers include Twain, Norris, Steinbeck, Chandler, Tan, Ginsberg, and Kingston. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**English 156H—Honors California Literature (3)**

**Prerequisite:** English 100.

Read, analyze, and write on a range of California literature texts including poetry, essay, drama, short story, and novel. Examine the philosophical, cultural, mythical, religious, and/or historic elements related to these texts. Typical writers include Twain, Norris, Steinbeck, Chandler, Tan, Ginsberg, and Kingston. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**English 160—World Literature Through Renaissance (3)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of the Eastern and Western world from classical periods through the Renaissance. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Euripides, Sophocles, Aeschylus, Biblical writers, Virgil, Ovid, Li Po, Dante, and Rabelais. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**English 160H—Honors World Literature Through Renaissance (3)**

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of the Eastern and Western world from classical periods through the Renaissance. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Euripides, Sophocles, Aeschylus, Biblical writers, Virgil, Ovid, Li Po, Dante, and Rabelais. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## English 161—World Literature Since Renaissance (3)

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of the world from the Baroque and Neo-classical period to the present. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Achebe, Basho, Camus, Dostoevsky, Flaubert, Cao Kuegun, Mann, Moliere, Rousseau, Tolstoy, Wu Ch'eng-en, Voltaire. Includes discussion of writers outside the Western world. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## English 161H—Honors World Literature Since Renaissance (3)

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of the world from the Baroque and Neo-classical period to the present. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Achebe, Basho, Camus, Dostoevsky, Flaubert, Cao Kuegun, Mann, Moliere, Rousseau, Tolstoy, Wu Ch'eng-en, Voltaire. Includes discussion of writers outside the Western world. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## English 170—Modern and Post-Modern Literature (3)

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of modern and post-modern literature. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of modern writers, post-modern writers, and upcoming writers important to the twenty-first century. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## English 170H—Honors Modern and Post-Modern Literature (3)

**Recommended preparation:** English 100.

Read, analyze, and write on important texts of modern and post-modern literature. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of modern writers, post-modern writers, and upcoming writers important to the twenty-first century. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## English 172—Unique Topics in Literature (3)

**Recommended preparation:** English 100.

Read, analyze, and write on important texts chosen because of their timeliness and focus on a common theme, form, geographical area, or cultural group. An umbrella course that may focus on literature that ties to other academic disciplines such as science or history. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## English 175—Shakespeare (3)

**Prerequisite:** English 100.

Read, analyze, and write on a range of Shakespearean texts including histories, comedies, tragedies, and problem plays. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of historical and theatrical backgrounds and the influence of Shakespeare on modern writers. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## English 175H—Honors Shakespeare (3)

**Prerequisite:** English 100.

Read, analyze, and write on a range of Shakespearean texts including histories, comedies, tragedies, and problem plays. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of historical and theatrical backgrounds and the influence of Shakespeare on modern writers. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## English 176—Man, Myth and Magic (3)

**Recommended preparation:** English 100.

Read, analyze, and write on both myths and the literature based on mythic traditions. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of classical myths, epics, and folk literature. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## English 176H—Honors Man, Myth and Magic (3)

**Recommended preparation:** English 100.

Read, analyze, and write on both myths and the literature based on mythic traditions. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Includes discussion of classical myths, epics, and folk literature. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## English 179—Introduction to Gender Issues in Literature and Film (3)

**Prerequisite:** English 100.

Read, analyze, and write on literature of different genres, periods, and culture that focus on culturally constructed images of males and females. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## English 280—Survey of British Literature Before 1800 (3) (CAN ENGL 8)

**Prerequisite:** English 100.

Read, analyze, and write on important British literature from the Anglo-Saxon period to 1800. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include anonymous Old English writers, Chaucer, Shakespeare, Donne, Milton, Swift, and Pope. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## English 280H—Honors Survey of British Literature Before 1800 (3)

**Prerequisite:** English 100.

Read, analyze, and write on important British literature from the Anglo-Saxon period to 1800. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include anonymous Old English writers, Chaucer, Shakespeare, Donne, Milton, Swift, and Pope. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## English 285—Survey of British Literature After 1800 (3) (CAN ENGL 10)

**Prerequisite:** English 100.

Read, analyze, and write on important British literature from 1800 to the present including Romantic, Victorian, and modern writers. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Austen, Blake, Browning, Dickens, Carlyle, Hardy, Joyce, Keats, O'Brien, Yeats, Woolf, Wordsworth. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**English 285H—Honors Survey of British Literature After 1800 (3)**

**Prerequisite:** English 100.

Read, analyze, and write on important British literature from 1800 to the present including Romantic, Victorian, and modern writers. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include Austen, Blake, Browning, Dickens, Carlyle, Hardy, Joyce, Keats, O'Brien, Yeats, Woolf, Wordsworth. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**ENGLISH AS A SECOND LANGUAGE**

**English as a Second Language N011AB—Beginning Listening and Speaking (4)**

**Prerequisite:** Qualifying score on the ESL placement test administered through the OCC Assessment Center.

Listening comprehension, oral communication and pronunciation skills for beginning students who are non-native speakers of English. Practice in spontaneous conversation and small group discussion. May be taken for grades or on a credit-no credit basis. Four hours. Not applicable to AA degree.

**English as a Second Language N015AB—Grammar, Reading and Writing 1 (8)**

**Prerequisite:** Qualifying score on the ESL placement test administered through the OCC Assessment Center. Also, qualifying score on the OCC ESL placement test for ESL 121AB level or higher or concurrent enrollment in ESL N011AB.

Intensive introductory level of integrated basic grammar and reading of American English for non-native students who are matriculated and pursuing college coursework. Includes work on sentence structure, questions, short answers, pluralization, pronouns, simple and continuous tenses. Also includes decoding of English spelling system, vocabulary development, and comprehension of simple written material. May be taken for grades or on a credit-no credit basis. Eight hours. Not applicable to AA degree.

**English as a Second Language N090AB—Intensive Grammar 1 (1.5) (8 week course)**

Intensive study of the fundamentals of English grammar: be as a main verb, question formation, pluralization, pronouns, tenses, present modals, gerunds and infinitives, comparative and superlative, adverb and noun clauses, conjunctions, preposition, and article usage. Designed for students in need of extra work in or review of grammar. Does not replace ESL N015AB, 125AB, 135AB, 155AB or 160AB. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. Not applicable to AA degree.

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**English as a Second Language N091AB—Intensive Grammar 2 (1.5) (8 week course)**

Intensive study of intermediate and advanced English grammar: tenses, continuous and past modals, gerunds and infinitives, comparative and superlative, adjective clauses, clause reduction, passives, sentence combination, tense sequences, showing cause and effect, preposition article usage, conjunctions. Designed for students in need of extra work in or review of grammar. Does not replace ESL N015AB, 125AB, 135AB, 155AB or 160AB. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. Not applicable to AA degree.

**English as a Second Language 121AB—Listening and Speaking Skills 1 (3)**

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL N011AB. Also, qualifying score on the OCC ESL placement test for ESL 125AB or higher or completion of ESL N015AB.

Listening comprehension, oral communication, and pronunciation skills for low-intermediate students. Specific preparation for comprehending conversations, reports, presentations, and lectures. Introduction to note-taking. Practice in spontaneous conversation and small-group discussion. Work on American sound system in such areas as stress and intonation, reductions, pitch, and rhythm. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**English as a Second Language 125AB—Grammar, Reading and Writing 2 (6)**

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL N015AB. Also, qualifying score on the OCC ESL placement test for ESL 121AB or higher or completion of ESL N011AB.

Integrated intensive study of basic grammar and reading for low-intermediate students who are non-native speakers of English. Practice in reading and writing involving sentence structure, tenses, modals, comparative, superlative, and clauses. Work on the sound and spelling system of English, including dictionary skills, literal reading, and vocabulary development. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Eight hours. **Transfer Credit: CSU.**

**English as a Second Language 131AB—Listening and Speaking Skills 2 (3)**

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL 121AB. Also, qualifying score on the OCC ESL placement test for ESL 135AB or higher or completion of ESL 125AB.

Listening comprehension, oral communication, and pronunciation skills for intermediate students. Task-oriented discussion and group discussion techniques. Practice on basic note-taking from lectures. Review of basic patterns of American pronunciation and practice of patterns tied to more complex structures. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**English as a Second Language 135AB—Grammar, Reading and Writing 3 (7)**

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL 125AB. Also, qualifying score on the OCC ESL placement test for ESL 131AB or higher or completion of ESL 121AB.

Integrated intensive study of grammar, reading and writing for intermediate students who are non-native speakers of English. Review of basic grammar and reading skills. Practice in reading and writing involving sentence structure, continuous and past modals, passive, adjective clauses and articles. Writing practice for grammar, mechanics and fluency. Practice on literal and critical reading, analyzing, making inferences and evaluating. May be taken for grades or on a credit-no credit basis. Nine hours. **Transfer Credit: CSU.**

**English as a Second Language 151AB—Listening and Speaking Skills 3 (3)**

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL 131AB. Also, qualifying score on the OCC ESL placement test for ESL 155AB or higher or completion of ESL 135AB.

Listening comprehension, oral communication and pronunciation for high-intermediate and advanced second language students. Practice on effective note-taking and listening for specific information. Interpersonal communication and oral presentation techniques. Pronunciation practice including reductions and grammar, hesitation and individual work. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**English as a Second Language 155AB—Grammar, Reading and Writing 4 (6)**

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL 135AB. Also, qualifying score on the OCC ESL placement test for ESL 151AB or completion of ESL 131AB.

Integrated intensive study of grammar, reading and writing for high-intermediate students who are non-native speakers of English. Review of basic and intermediate grammar and reading skills and work on advanced grammatical structures. Introduction to the writing process with emphasis on writing paragraphs in response to reading selections intended for a general audience. Students will write 3,000 teacher-evaluated words. May be taken for grades or on a credit-no credit basis. Eight hours. **Transfer Credit: CSU.**

**English as a Second Language 160AB—Composition and Reading 1 (3)**

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL 155AB. Also, qualifying score on the OCC ESL placement test for ESL 151AB or completion of ESL 131AB.

This course integrates college-level reading, writing, and critical thinking skills in response to college-level readings. Students will write 6,000 teacher-evaluated words. Individual attention given to structure and usage problems of ESL students through conferencing and computer applications. May be taken for grades or on a credit-no credit basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

## English as a Second Language 165AB—Advanced Sentence Analysis and Construction (3)

**Prerequisite:** Qualifying score on the OCC ESL placement test or completion of ESL 155AB. Also, qualifying score on the OCC ESL placement test for ESL 151AB or completion of ESL 131AB.

Advanced work on complex sentence analysis and construction. Analysis of college-level texts and the relation between grammatical structures and meaning. Application of a wide variety of sentence development strategies. Especially suited for the advanced nonnative speaker who already has skill in essay writing and who wants to develop English sentence structure style and accuracy. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## English as a Second Language 199AC—Composition and Reading 2 (3)

**Prerequisite:** ESL 160AB or 165AB. Also, qualifying score on the OCC ESL placement test for ESL 151AB or completion of ESL 131AB.

A continuation of skills covered in ESL 160AB. This course integrates college-level reading, writing, and critical thinking skills. Intensive practice in writing original compositions using various methods of development and organization. Students will write 6,000 teacher-evaluated words. Individual attention given to structure and usage problems. May be taken for grades or on a credit-no credit basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

## ETHNIC STUDIES

### Ethnic Studies 100—Contemporary Ethnic America (3)

An examination of contemporary American dominant, ethnic and racial minority intergroup relations from historical, sociological and psychological perspectives. Addresses continuing issues of racism and discrimination in employment, education, politics and health care. Three hours. **Transfer Credit: CSU; UC.**

### Ethnic Studies 150—Ethnic Groups in the U.S.: Their Histories (3)

A survey of the history of the many ethnic groups originating in Europe, Asia (including the American Indian), the Americas, the Pacific Islands, Africa, and the Middle East that make up the population of the United States. Same as History 150. Students completing Ethnic Studies 150 may not receive credit for History 150. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Ethnic Studies 190—The Ethnic Family (3)

Ethnic and minority families in the United States today. Emphasis on family interaction, child training patterns, the family's relationship to society and community helping agencies. Same as Sociology 190. Students completing Ethnic Studies 190 may not receive credit for Sociology 190. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## FAMILY AND CONSUMER SCIENCES

### Family and Consumer Sciences 180—Life Management (3)

This course develops skills in using resources for effective functioning now and in the future. Explores theories of management, including systems thinking, time, energy, money, stress, and conflict. Topics include steps in goal setting, problem solving, value clarifications, and the effect of cultural forces and future trends on the individual. Three hours. **Transfer Credit: CSU.**

## FASHION

### Fashion N050AD—Sewing Lab (.5-2)

A laboratory-based course to improve clothing construction skills. Students work independently according to a study plan they devise and complete under the supervision of the course instructor. Includes periodic student-teacher conferences, completion of individualized lab assignments, and a final self-assessment report. Enrollment is open all semester. Offered on a credit-no credit basis only. One and one-half to six hours arranged laboratory. Not applicable to AA degree.

### Fashion 100—Beginning Clothing Techniques (3)

This course is basic clothing construction using the latest methods. Students will learn fifty basic clothing construction techniques and complete two easy-to-sew projects. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

### Fashion 101AB—Intermediate Clothing Techniques (3)

**Prerequisite:** Fashion 100 or concurrent enrollment. Intermediate techniques to increase skill level in garment construction. The student will complete a minimum of two projects. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

### Fashion 102—Industrial Sewing Techniques (2)

**Prerequisite:** Fashion 100 or concurrent enrollment. Advanced clothing construction techniques with emphasis on industrial equipment, techniques, use, and care. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

### Fashion 105—Sewing Skills Assessment (3)

**Recommended preparation:** Fashion 100 or 101AB. Assessment of sewing skills and performance of specified clothing techniques required for Fashion 100 and 101AB. Offered on a credit-no credit basis only. One hour lecture, five hours laboratory. **Transfer Credit: CSU.**

### Fashion 108—Introduction to Fashion Design on the Computer (2)

An introductory course using computer-assisted fashion design software, SnapFashion, on the Macintosh. Proper usage and maintenance of computers, utilization of fashion design software, creation of flat sketches, hang tags and labels, development of textile prints, assembling storyboards, and exploration of Internet resources will be covered. One and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

### Fashion 110—Applied Textiles and Design (3) (CAN FCS 6)

Selection, use, care, and performance standards for textile products for fashion apparel and interior textiles. Three hours. **Transfer Credit: CSU; UC.**

### Fashion 115—Careers in Fashion (3)

An overview and introduction to employment opportunities and careers related to fashion design, apparel construction, fashion merchandising, and costume. The course will profile jobs and job qualifications in the fashion industry. Three hours. **Transfer Credit: CSU.**

### Fashion 118—Trend Forecasting (1.5) (8 week course)

This course studies the techniques and procedures for identifying and forecasting fashion trends and evaluates current trends found in lifestyles, business, ready-to-wear, and home fashion. Students will learn to recognize and analyze predictive lifestyle and business trends that affect retail merchandising and marketing decisions. Three hours. **Transfer Credit: CSU.**

### Fashion 120—History of Fashion (1.5) (8 week course)

A chronological study of costume designs from ancient times to the present. Emphasis is placed on the identification of apparel design details, the relation of recurring style trends to contemporary fashions, sociological, economic, and political factors affecting clothing through the centuries. Three hours. **Transfer Credit: CSU.**

### Fashion 121—Street Style (1.5) (8 week course)

This course explores the significant and dynamic role street style plays in the 20th Century and surveys how youth defies and influences the fashion establishment. The street's ascent as a fashion force will be traced from its historical inception to how it makes history. Three hours. **Transfer Credit: CSU.**

### Fashion 125—Cultural Textiles and Apparel Design (3)

A survey of the role textiles has played in the social, economic, religious, aesthetic, and technological developments of society which affect contemporary textiles and fashion. Three hours. **Transfer Credit: CSU.**

### Fashion 130AB—Tailoring (2)

**Prerequisite:** Fashion 100.

The student will construct a lined, tailored jacket using traditional and speed tailoring techniques. Forty-eight basic clothing construction techniques will be featured. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

**Fashion 135—Design in Everyday Life (1.0) (8 week course)**

Design as it relates to everyday life. The study of the design process to include inspiration, design boards, tools and techniques, completed projects and evaluation. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Fashion 137—Alterations (2)**

**Prerequisite:** Fashion 100.

Basic analysis and techniques related to fitting and altering ready-to-wear garments and commercial patterns. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

**Fashion 140—Evaluation of Apparel Quality (1.5) (8 week course)**

The study and evaluation of garment structure, quality, and care. Three hours. **Transfer Credit: CSU.**

**Fashion 150—Flat Pattern Techniques (3)**

Interpretation of clothing design through the use of flat pattern techniques. Basic principles involved in designing and manipulating patterns. Creating a basic sloper and muslin garment for the individual. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Fashion 155—Pattern Tech (2.5)**

**Prerequisite:** Fashion 150.

The development of offshore technical packages. To include: garment knock-offs, pattern adjustments, appropriate fit, fabric qualities and package specifications. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Fashion 170—Clothing Design and Selection (3)**

The psychology of clothing. Study of design, line, and color as they relate to dress and personal appearance. Fashion vocabulary, recognition and description of styles, fashion cycles and trends are emphasized. Three hours. **Transfer Credit: CSU.**

**Fashion 175—Applied Color and Design Theory (4)**

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. Same as Interior Design 175. Students completing Fashion 175 may not receive credit for Interior Design 175. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Fashion 176—Image Consulting (3)**

Designed to assist in image development through an individualized working wardrobe, familiarizing students with the techniques of wardrobe planning, figure analysis, effective use of accessories and color. The study also includes consulting as a profession, meeting the needs of your client, establishing financial relations, store and client relationships, and marketing. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Fashion 177—Fashion Merchandising Concepts (3)**

An introduction to the fashion merchandising industry will include vendors and products sold, as well as various types of retail venues and the methods of merchandising apparel in each. The presentation of a product line, the packaging and marketing of a product, an industry-based merchandise presentation, and the tracking of a fashion trend in several venues will also be included. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Fashion 180AB—Fundamental Principles of Clothing Construction (3)**

Fundamental principles of clothing construction are studied and applied to selected problems with an emphasis on expanding knowledge in a variety of techniques. Fulfills the lower division college transfer requirement in clothing for the family and consumer sciences major. One hour lecture, five hours laboratory. **Transfer Credit: CSU.**

**Fashion 181—Fashion Internship (4)**

**Recommended preparation:** Fashion 110, 115, 120, 170.

A supervised internship related to classroom-based learning at a fashion-related work site. Course will include resume writing, interviewing skills, and portfolio development. Two hours lecture, eight hours arranged. **Transfer Credit: CSU.**

**Fashion 199AD—Current Issues in Fashion (.5-1.5) (3-8 week course)**

Current issues in the field of fashion, rotating through a variety of topics, such as fashion design/production, apparel construction, fashion merchandising, and costume. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Fashion 225—Special Events Coordination and Promotion (3)**

Principles of fashion promotion and coordination. Studies the functions of special events coordinator. The course will include techniques and procedures for presenting fashion according to retail venue, target customer, type of merchandise, and type of theme or event. Three hours. **Transfer Credit: CSU.**

**Fashion 233—Couture Techniques (2)**

**Prerequisite:** Fashion 101AB.

Instruction and practice in techniques used to create couture and custom garments. Techniques of handling special and difficult fabrics, leather and furs. Features fine finishing details. Requires construction of one couture garment. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

**Fashion 235—Draping (2)**

**Prerequisite:** Fashion 110 and 150.

The creative design of garments through draping techniques emphasizing fabric manipulation and design creation. May be taken for grades or on a credit-no credit basis. One hour lecture/demonstration, two hours laboratory arranged in open laboratory. **Transfer Credit: CSU.**

**Fashion 245—Pattern Drafting and Design (1.5) (8 week course)**

**Recommended preparation:** Fashion 150.

Introduction to pattern drafting and advanced pattern design. Techniques for developing basic slopers and sportswear patterns for men, women, and children. Basics of developing pattern instruction sheets and writing pattern directions. May be taken for grades or on a credit-no credit basis. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Fashion 251—Pattern Grading (1.5)**

**Recommended preparation:** Fashion 150.

The process of proportionally increasing or decreasing master patterns according to a prescribed set of measurements to create size ranges for the ready-to-wear market. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

**Fashion 255—Fashion Illustrating Techniques (2)**

Presentation or promotion of fashion and garment design through elementary trade sketching and the use of the 'croqui', or undressed fashion figure, as used in the fashion trade or industry. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

**Fashion 260—Fashion Design/Production Concepts and Applications (3)**

**Recommended preparation:** Fashion 110 and 150.

An overview of the steps involved in fashion design/production, research & development. To include inspiration design boards, equipment, labeling, cost analysis, and assembly steps. The course will include the application of these concepts in producing a project. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Fashion 265—Introduction to Digitizing and Marker Making (1) (8 week course)**

**Recommended preparation:** Fashion 150.

An introductory course on the operation of a computer-assisted fashion industry software package Accumark by Gerber Garment Technology. System management, digitizing, plotting, and marker making will be covered. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Fashion 266—Computerized Pattern System (2)**

**Recommended preparation:** Fashion 150.

An introductory course on the operation of a computer-assisted pattern making Gerber software package (Accumark & PDS). System management, digitizing, plotting, marker making pattern development, library structures of pattern data, development of pattern blocks, pattern design, grading, and drafting system features/functions will be covered. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

## FILM/VIDEO

### Film/Video 100—History and Appreciation of the Cinema (3)

Review of cinema history with viewing and analysis of landmark films, directors, actors and technical achievements. Consideration of the film as an art form. Suggested for art, drama and film/video majors. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

### Film/Video 103—Contemporary Films (1.5-3) (8-16 week course)

View and analyze contemporary films from the point of view of social impact, psychological meaning, and how these films both reflect and affect society. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

### Film/Video 104—The Great Directors of the Cinema (3)

Topics delving into aspects of film history, criticism and aesthetics which can be described as extensions of the film directors' point of view. The course is intended for film/video majors and other students with an interest in film/video. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Film/Video 110—Video Workshop (3)

An introduction to the video/filmmaking process using single camera theory, lighting, audio, and editing techniques. Designed to be used as a foundation on which to build for advancement through the Film/Video Program or as a stand-alone course to create professional video productions. Each student will be assigned projects to produce. Two and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

### Film/Video 112—Home Video Marketing and Distribution (3)

Students will learn how to make and distribute a video production. Topics will include development, marketing, packaging, release strategies, financing, publicity and advertising. Three hours. **Transfer Credit: CSU.**

### Film/Video 150—Introduction to Radio, TV and Film (3)

Overview and analysis of the radio, TV, and film industries in the U.S. with emphasis on the historical, cultural, and technical functions of each medium. Broadcast advertising, and audience ratings, media law, and regulations are also explored in addition to the impact of global broadcasting, cable TV, the internet, and satellite technologies. Three hours. **Transfer Credit: CSU.**

### Film/Video 155—Television Production (3)

Introduction and orientation to the use of digital television studio equipment and other basic tools in television production. The course will focus on theory, terminology, the operation of all television equipment, and the responsibilities of television personnel. Students will be assigned projects to produce and will experience all major functions of the production team. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Film/Video 193—Film/Video Sound (3)

Explores uses of equipment and techniques used in the production of sound tracks for film, video, and television programs. Fundamentals of sound acquisition and manipulation will be discussed as the basis for completing assignments in sound track production. Topics covered will include on-location recording, signal processing, sound effects, sound design, music, and procedures for sound track editing and mixing. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

### Film/Video 194—Digital Film and Video Editing (3)

**Prerequisite:** Film/Video 110.

Explore the principles, theory, and mechanics of digital film and video editing using Macintosh computers with emphasis on techniques, effects, audio, graphics, and titling. This course is designed for those interested in entering the field of digital editing, those currently in the industry, and independent producers in the broadcast, education, corporate, and consumer markets. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

### Film/Video 240—Film Production (4)

**Prerequisite:** Film/Video 110 and Photography 120.

Production of short 16mm films, music videos, animation, and dramatic. Production techniques including writing, producing, directing, camera operation, sound and editing will be emphasized. There will be extensive development of fictional story-telling structure. Three hours lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

### Film/Video 255AC—Advanced Television Production (3)

**Prerequisite:** Film/Video 155.

An advanced television studio production class emphasizing the role of the writer, producer, and director. Students will produce programs designed for live and live to tape television formats in the Film/Video Department's digital television studio, utilizing 16 x 9 widescreen cameras, switchers, lighting, and sound recording equipment. Each student will be assigned projects to produce and will experience all major functions of the production team. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

### Film/Video 260AB—Special Projects (2)

Assists students in developing specialized film/video related projects. Expanded focus in specific study areas enhancing knowledge and technical skills. Designed for advanced film/video majors. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

### Film/Video 261AD—Television Lab (2)

**Prerequisite:** Film/Video 155.

Participation in the production and technical support of special television programs for students interested in gaining further experience with television. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

### Film/Video 264AB—Advanced Digital Film and Video Editing (3)

**Prerequisite:** Film/Video 194.

An advanced course in digital film and video editing techniques and styles using an industry standard non-linear editing interface. The course will cover the importing of editing material, compositing, effects, graphics, and exporting to a variety of sources. This course is designed for students interested in a career as a film/video editor. Two hours lecture, two and one-half hours non-lecture. **Transfer Credit: CSU.**

### Film/Video 265AD—Electronic Field Production (4)

**Prerequisite:** Film/Video 110.

Techniques of on-location video production including lighting, sound, videography, and post-production editing. Students will function as producers, directors, talent, and crew. Productions will include news, documentary, drama, industrials, and music videos. Three hours lecture, five hours non-lecture. **Transfer Credit: CSU.**

### Film/Video 270AB—Digital Cinema (4)

**Prerequisite:** Film/Video 240 and 265AD.

A production course in which traditional film based systems are compared against digital technologies. Topics include film vs. video, aspect ratios, formats, high definition cameras, post-production options, distribution and delivery systems. Students will produce a short digital movie after extensive pre-production and story development. Three hours lecture, five hours laboratory. **Transfer Credit: CSU.**

## FOOD AND NUTRITION

### Food and Nutrition 100—Careers in Dietetics and Food Science (1) (8 week course)

Career opportunities and requirements in the fields of dietetics and food science are explored. Discussion will include current and projected trends which relate to career opportunities. Course covers scope and responsibilities of professional members in various food-related careers. Same as Nutrition Care 100. Students completing Food and Nutrition 100 may not receive credit for Nutrition Care 100. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

### Food and Nutrition 120—Cooking Essentials (1) (8 week course)

Principles of meal planning and the scientific and aesthetic principles of food selection and preparation. Includes equipment usage, food preparation methods, meal planning, the serving of food, as well as effective management of time, energy, and money. One and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

**Food and Nutrition 125—Vegetarian Cuisine (1) (8 week course)**

Vegetarian diets are explored, including information on healthy food choices, nutritional implications, and cooking techniques. Each class includes demonstrations and preparation of a wide variety of vegetarian foods. Vegetarian foods from different cultures are also included. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Food and Nutrition 136—Nutrition, Fitness and Performance (3)**

An applied nutrition course for individuals interested in health, fitness, and athletics. Principles of nutrition are studied and applied to the physically active lifestyle. Designed for the active individual and for the Fitness Specialist certificate. Pre-event food and fluid selection, nutrient requirements during activity, various nutrition supplements, muscle mass and body fat related to physical performance. Same as Health Education 136. Students completing Food and Nutrition 136 may not receive credit for Health Education 136. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Food and Nutrition 136L—Cooking for Health, Fitness and Performance (1) (8 week course)**

**Recommended preparation:** Food and Nutrition 136 or 140 or 170.

Meets a need for those involved in demanding physical activity ranging from personal fitness to competitive sports, by bridging the gap between nutrition theory and food intake. Emphasis is placed on planning well-balanced meals, as well as on foods which are inexpensive to buy, easy to prepare, and a pleasure to eat. Food preparation experiences include time saving recipes for daily meals, in-training and pre-game event meals, and snacks for better health and an active lifestyle. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Food and Nutrition 140—Introduction to Nutrition Concepts (2)**

Nutrition concepts and their application to daily living: basic nutrition, food product evaluation, menu modification, food and health issues, nutrition controversies, and environmental concerns. This course may also be offered online. Two hours. **Transfer Credit: CSU.**

**Food and Nutrition 144—Life Cycle Nutrition: Mother and Infant (1) (6 week course)**

The importance of good nutrition for health and well-being of mothers and infants is emphasized. Community resources will be explored, including the WIC nutrition program. Three hours. **Transfer Credit: CSU.**

**Food and Nutrition 145—Life Cycle Nutrition: Children (1) (6 week course)**

Nutrient needs of children and appropriate feeding practices. Three hours. **Transfer Credit: CSU.**

**Food and Nutrition 146—Life Cycle Nutrition: Later Years (1) (6 week course)**

Factors affecting the nutritional status of the mature and aging adult will be addressed. Nutritional needs, disease intervention, and tips on handling feeding problems of the frail elderly are included. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Food and Nutrition 170—Nutrition (3) (CAN FCS 2)**

Scientific concepts of nutrition relating to the functioning of nutrients in the basic life processes. Emphasis on individual needs, food sources of nutrients, current nutrition issues, and diet analysis. Three hours. **Transfer Credit: CSU; UC.**

**Food and Nutrition 171—Applied Nutrition (2)**

**Prerequisite:** Food and Nutrition 170 or 140 or 136 or concurrent enrollment.

The preparation of foods for maximum nutrient retention. Calories, grams of protein, fat, carbohydrate, and nutrient density will be calculated, and the specific nutrients in foods identified. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

**Food and Nutrition 173—Cooking Lite (1) (8 week course)**

Practical information for establishing a lifelong eating plan for maintaining optimum health. Laboratory experience in preparing healthy foods. The emphasis is on applying nutrition tools to create a healthy diet. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Food and Nutrition 180—Principles of Foods (3) (CAN FCS 8)**

Basic knowledge of food science principles and food preparation techniques. Emphasis on ingredient interaction, technique and production standards, food safety, sanitation, nutrient values, and food presentations. Five hours. **Transfer Credit: CSU.**

**Food and Nutrition 185—Cultural Foods (2)**

Cuisines of the world are compared. America's diverse microcultures are explained through their traditional food ways. Origins of food, customs, psychological acceptance and nutrition information are included. Emphasis is placed on food preparation techniques, utensils, food service, and creation of an authentic atmosphere. Effects of changes on food habits and nutrition of ethnic groups are assessed. May be taken for grades or on a credit-no credit basis. One and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

**Food and Nutrition 195—Food Science (4)**

**Prerequisite:** Food Service Management 160 or Food Service Management 161 or ServSafe Certification. This prerequisite will be validated in class during the first week of the course.

The scientific study of basic constituents of foods (carbohydrates, lipids, protein, and water) and the chemical, microbial, and physical actions and reactions that cause nutritional, sensory, and other changes before, during, and after processing. Includes hands-on experimentation and guest speakers. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Food and Nutrition 199AD—Current Issues in Food, Nutrition, and Food Science (.5) (1-8 week course)**

The study and review of current issues in the field of food, nutrition, food science, and dietetics including a variety of topics, such as general nutrition, food research and technology, cook/chill, and nutrition related to health and disease, wellness, the life cycle, and fraud. May be taken for grades or on a credit-no credit basis. One to nine hours lecture. **Transfer Credit: CSU.**

**FOOD SERVICE MANAGEMENT**

**Food Service Management 100—Introduction to the Hospitality Industry (3)**

Overview of the hospitality industry, its history and interrelationships of hotel, restaurant, travel and leisure industries. Economic and social influences of leisure. Emphasis on attitude required of a person seeking a position in the industry. Same as Hotel 100 and Culinary Arts 100. Students completing Food Service Management 100 may not receive credit for Hotel 100 or Culinary Arts 100. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Food Service Management 145—Child Nutrition Program Management (2)**

Role and responsibilities of unit school food service managers, child care administrators, or family day care sponsors in providing meals to children and youth which comply with legislative and budgetary parameters, which meet their nutritional, social, psychological and cultural needs, and the integration of food service programs with classroom nutrition education activities. Includes current sanitation standards for food services facilities. Two hours. **Transfer Credit: CSU.**

**Food Service Management 151—Food Production Management (2)**

**Prerequisite:** Culinary Arts 150 or any two of the following: Culinary Arts 120, 122, 124, 149.

Techniques and practice in how to manage individuals responsible for producing food. The role of the supervisor in planning, organizing, supervising, and controlling food production is discussed. Students will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

**Food Service Management 160—Sanitation and Safety (3)**

The basic principles of microbiology, sanitation, safety, equipment selection, and facility layout for a food service operation. Includes the environmental control application through the prevention of food-borne illnesses, cleaning materials and procedures, general safety regulations, food processing methods, first aid, and fire prevention. Prepares student for national food handler certification examination. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Food Service Management 161—Basic Concepts in Sanitation (.5) (4 week course)**

A short course in sanitation applied to the flow of food. The course is designed to meet current professional organization certification requirements and prepares the student for the national food handler certification examination (ServSafe). This course may also be offered online. Offered on a credit-no credit basis only. Two and one-half hours. **Transfer Credit: CSU.**

## Food Service Management 190—Dining Room Service (2)

**Prerequisite:** Food Service Management 160.

Orientation to all functions of restaurant dining room operations, including dishwashing, pot and pan washing, floor care, equipment maintenance, and line preparation techniques. Emphasis on dining room service techniques of table waiting and accompanying dining room skills. Students will be required to follow hospitality department dress standards. TB clearance required. One hour lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Food Service Management 210—Dining Room Management (3)

**Prerequisite:** Food Service Management 190.

Management of a restaurant dining room, including efficient service techniques, safe and sanitary housekeeping, and the presentation of fine food. Emphasis on staff scheduling, controls, and skills required to effectively supervise a dining room operation. Dining service will include French, Russian, American, and English waited service, as well as limited service techniques. Students will be required to follow hospitality department dress standards. TB clearance required. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## Food Service Management 240—Food Service Math/Accounting (4)

Mathematical and accounting concepts applied to food service problems such as food costing, payroll computations, recipe adjusting, gross profit analysis, guest check mechanics, and metric conversions. Mathematical skills will be applied in completing accounting control forms to include cost reports, financial statements, budgets, break-even analysis, and general financial decision making problems. Four hours. **Transfer Credit: CSU.**

## Food Service Management 250—Menu Planning and Purchasing (3)

The basic principles of menu planning, purchasing, writing specifications for food and supplies, and proper receiving/storage techniques. Planning interesting and satisfying meals for restaurants and institutions. Emphasis on type of operation, psychological needs, available equipment, skill of the personnel, merchandising, menu pricing, and operating budget. Three hours. **Transfer Credit: CSU.**

## Food Service Management 260—Supervision and Training Techniques (3)

Procedures and problems met by hospitality operations in developing responsibility of selection, placement, orientation, training, counseling, evaluation, promotion, and disciplining of employees. Special emphasis on leadership skills of motivation, communication, decision making, work simplification, and enhancing morale. Same as Hotel 260. Students completing Food Service Management 260 may not receive credit for Hotel 260. Three hours. **Transfer Credit: CSU.**

## Food Service Management 284—Catering (3)

**Prerequisite:** Food Service Management 160, 250 or concurrent enrollment.

The theory and practice of managing a catering operation. Students will be required to follow hospitality department dress standards. TB clearance required. Three hours lecture, one-half hour laboratory. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Food Service Management 285—Restaurant Management (3)

The principles of operating a food service facility. Characteristics unique to different segments are explored, including fast food operations, full service restaurants, and institutional operations. Management principles, marketing, financial management, site location, space allocations, legal considerations, and customer relations will be covered. Three hours. **Transfer Credit: CSU.**

## Food Service Management 286AB—Directed Practice in Food Service Management (2)

**Prerequisite:** Food Service Management 160.

A directed opportunity for students in food service or culinary arts to gain on-the-job training in the area in which the student expects to graduate. This directed practice is repeated for each option the student elects in order to earn a certificate of achievement. Students will be required to follow dress standards set by the facility in which they are working. TB clearance required. Ten hours paid, eight hours unpaid, plus six hours seminar. **Transfer Credit: CSU.**

## FRENCH

### French 180—Elementary French (5) (CAN FREN 2)

The focus is on beginning competence in listening and speaking, then writing and reading through competency-based instruction and communication and communicative activities. Many aspects of everyday French culture are discussed. This course is designed for students who need to fulfill a foreign language requirement and for those who wish a thorough introduction to the more important aspects of the language and culture. This course is equivalent to two years of high school French. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

### French 185—Elementary French (5) (CAN FREN 4)

**Prerequisite:** French 180 or completion of two years of high school French with a grade of 'C' or better.

Continuation of French 180. Emphasis on correct use of French through basic conversations describing one's immediate environment. Comprehension is expanded through discussions on school activities, professions, health matters, travels, family life, social activities, and customs. French literature and culture will also be presented. Comprehension, speaking, reading, and writing are the basics of the course. This course is equivalent to three years of high school French. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## French 280—Intermediate French (4) (CAN FREN 8)

**Prerequisite:** French 185.

Continuation of French 185. Further study and review of French grammar and idioms. Reading of contemporary French materials. Written composition of current topics and oral work at an intermediate level. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

## French 285—Intermediate French (4) (CAN FREN 10)

**Prerequisite:** French 280.

Continuation of French 280 with concentration on oral and written expression based on grammar review and readings on literature and culture. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

## GENDER STUDIES

### Gender Studies 100—Introduction to Gender Studies (3)

An interdisciplinary approach to understanding the role of gender in influencing experiences in society. Focus is on the role of gender in all levels of society and in all social institutions, including family, business, education, health, and religion. The perspective will be both historical and cross-cultural. Three hours. **Transfer Credit: CSU; UC.**

### Gender Studies 120—Men, Women, Work, and Family (3)

Explores the role of gender in paid and unpaid labor in the household and the market. Interdisciplinary perspectives and historical changes are considered in relation to wages, harassment, class and race differences, and social policy affecting work and family life. Three hours. **Transfer Credit: CSU.**

### Gender Studies 130—Women, Power, and Politics (3)

Perspectives on women, power, and politics in both national and international contexts. Topics include women's movements and political participation in the US and abroad, representation of women in congress and legislatures worldwide, as heads of government and state, and as influences in public policy, the law, human rights, and economic development. Three hours. **Transfer Credit: CSU.**

### Gender Studies 150—Women, Careers, and Leadership (3)

An exploration of the unique roles played by women in settings that have traditionally been male-dominated. This course offers an historical and sociological overview along with in-depth examination of current issues and trends. Students will also develop strategies for reducing the barriers to women in their work and leadership roles. Three hours. **Transfer Credit: CSU.**

**Gender Studies 165—Men, Women, and Communication (3)**

Major issues regarding communication behaviors between men and women in various environments will be discussed. Focus is on problem analysis and decision making specific to gender conflict and how gender is communicated and constructed in our daily lives. Same as Speech Communication 165. Students completing Gender Studies 165 may not receive credit for Speech Communication 165. Three hours. **Transfer Credit: CSU.**

**Gender Studies 187—Women in History (3)**

This course provides a broad overview of the experiences of women in world history from hunter-gatherer societies to the present. It examines how women's political, economic, social, and cultural experiences have been shaped by gender and affected by place, time, class, and race. Same as History 187. Student completing Gender Studies 187 may not receive credit for History 187. Three hours. **Transfer Credit: CSU; UC.**

**GEOGRAPHY**

**Geography 100—World Regional Geography (3)**

An introduction to the regions and nations of the world. The major countries including their population, resources, general development and physical setting will be investigated. Three hours. **Transfer Credit: CSU; UC.**

**Geography 100H—Honors World Regional Geography (3)**

An introduction to the regions and nations of the world. The major countries, including their population, resources, general development, and physical setting will be investigated. Three hours. **Transfer Credit: CSU; UC.**

**Geography 160—Economic Geography (3)**

A systematic investigation into the distribution of the world's resources and their use in an emerging global economy. Includes a study of the environmental impact of industrialization, agriculture, mining, forestry, manufacturing, pollution, depletion of resources, multinational commerce, and their geographical implication. Three hours. **Transfer Credit: CSU; UC.**

**Geography 180—Physical Geography (3) (CAN GEOG 2)**

A study of the basic physical elements of geography and their integrated patterns of world distribution. Particular emphasis is given to climate, land forms, soils and natural vegetation. Three hours. **Transfer Credit: CSU; UC.**

**Geography 180H—Honors Physical Geography (3)**

A study of the basic physical elements of geography and their integrated patterns of world distribution. Particular emphasis is given to climate, land forms, soils, and natural vegetation. Three hours. **Transfer Credit: CSU; UC.**

**Geography 180L—Physical Geography Lab (1)**

**Prerequisite:** Geography 180 or concurrent enrollment. **Recommended preparation:** Math 010.

This course is design to provide supplemental exercises in topics covered in Geography 180. Lab experience will include map analysis and interpretation, weather prognostication, landform processes and evolution, tectonics, bio-

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

geography, and habitat analysis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Geography 185—Cultural Elements (3) (CAN GEOG 4)**

A study of the basic cultural elements of geography and their correlation with the physical elements. Particular emphasis is given to population distribution, land-use patterns and trade. Three hours. **Transfer Credit: CSU; UC.**

**Geography 190—Introduction to Geographic Information Systems (2.0)**

**Recommended preparation:** Computer Information Systems 100.

This course provides a theoretical basis for understanding the use of Geographic Information Systems (GIS) in spatial analysis and decision making for a variety of applications. Students learn fundamental concepts of cartographic presentation and the skills for working with spatial data, database design, data conversion, information retrieval, and spatial analysis. Laboratory exercises provide students with applications from various fields including business, environmental, geography, geology, marketing, and planning. One and one-half hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**GEOLOGY**

*(Credit in Geology courses means 'C' performance or better.)*

**Geology 100—General Geology (3)**

Composition and structure of the earth and the processes which modify the crust and the surface and their effect on man. Not open to students who are taking or have successfully completed Geology 180. One field trip required during semester. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Geology 100H—Honors General Geology (3)**

Composition and structure of the earth and the processes which modify the crust and the surface and their effect on man. Not open to students who are taking or have successfully completed Geology 180. One field trip required. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Geology 100L—General Geology Laboratory (1)**

**Prerequisite:** Geology 100 or concurrent enrollment. A laboratory study of materials and processes in the earth. A beginning laboratory course for the non-science major. May be taken for grades or on a credit-no credit basis. Three hours laboratory. Same as Natural Science 100LG. **Transfer Credit: CSU; UC.**

**Geology 100LH—Honors General Geology Lab (1)**

**Prerequisite:** Geology 100 or 100H or concurrent enrollment.

A laboratory study of materials and processes in the earth. A beginning laboratory course for the non-science major. May be taken for grades or on a credit-no credit basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Geology 106—Earth Science for Teachers (4)**

A broad-based study of earth science, including geology, oceanography, meteorology, and solar system astronomy. Topics are aligned with the California State Science Standards for K-12 and will prepare future teachers to teach these subjects. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Geology 140—California Geology (3)**

The study of a geologic showcase—California. The geologic framework of our state and its corresponding geologic provinces and geologic factors which have influenced California's human history. The intimate inter-relationships of geology with our agriculture, transportation, construction, mining, oil and gas industry, recreation and public welfare. May be taken for grades or on a credit-no credit basis. Field trip required. Three hours. **Transfer Credit: CSU; UC.**

**Geology 160—Environmental Geology (4)**

**Prerequisite:** English 100 or concurrent enrollment.

This course is the study of natural environments and the impact of humans on geologic systems and will focus on studies of environmental problems associated with soils, water resources and pollution, energy and mineral utilization, coastal erosion, natural geologic hazards, and global atmospheric changes. Principles of sound management of the geologic environment will be emphasized. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

**Geology 180—Physical Geology (4) (CAN GEOL 2)**

A study of materials and processes in the earth. A beginning course in physical geology for science and engineering majors and students desiring a science emphasis. One extended field trip required during the semester. May be taken for grades or on a credit-no credit basis. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

**Geology 185—Evolution of the Earth (3) (CAN GEOL 4)**

**Recommended preparation:** Geology 100 or 180.

Geologic evolution of the earth as shown by the changing patterns of land and sea and by the succession of fauna and flora. A second course in geology for science majors. May be taken for grades or on a credit-no credit basis. One field trip required during semester. Three hours lecture. **Transfer Credit: CSU; UC.**

**Geology 185L—Evolution of the Earth Lab (1) (CAN GEOL 4)**

**Prerequisite:** Geology 185 or concurrent enrollment.

Laboratory and field exercises to learn how the geologic history of the earth may be determined. Extended weekend field trip required. May be taken for grades or on a credit-no credit basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**GERMAN**

**German 180—Elementary German (5) (CAN GERM 2)**

Fundamentals of German language and culture with practice in reading, speaking, writing, and comprehension of German at the beginning level. An introduction of selected literary works by leading German authors and an awareness of German culture. Designed for students needing to fulfill foreign language requirements and for those who wish an introduction to the German language and culture. This course is equivalent to two years of high school German. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**German 185—Elementary German (5) (CAN GERM 4)**

**Prerequisite:** German 180 or completion of two years of high school German with a grade of 'C' or better.

Emphasis on language competency at a high novice/low intermediate level, writing, and mastery of real life situations including basic conversation and German customs and lifestyles. This course is equivalent to three years of high school German. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**German 280—Intermediate German (4) (CAN GERM 8)**

**Prerequisite:** German 185.

Emphasis on control of basic content areas and language functions, comprehension of main ideas and facts, and development of writing skills. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

**German 285—Intermediate German (4) (CAN GERM 10)**

**Prerequisite:** German 280.

Emphasis on the continuing development of conversational skills ranging from every day topics to certain abstract ideas from literary works. Writing and comprehension provide enhanced communication skills. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

**HEALTH EDUCATION**

**Health Education 100—Health Education (3)**

Provides basic knowledge of healthful living. Emphasis is on positive health behavior and personal responsibility. Topics include personal health, such as stress, drugs, disease, sexuality, and nutrition; community health, such as safety, consumer health and environmental health. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Health Education 111—Cardiopulmonary Resuscitation (.5) (3 week course)**

Techniques and theory of cardiopulmonary resuscitation. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Health Education 112—First Aid and CPR (2)**

The course emphasizes injury prevention, early medical care, first aid for common injuries and life saving skills. Successful completion qualifies a student for the Standard First Aid Card and CPR Certification. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU; UC.**

**Health Education 120—Women's Health Issues (3)**

Provides knowledge in health problems and considerations unique to women. Topics will include fitness, nutrition, anatomy and physiology, biological and psychological disorders, birth control, abortion, pregnancy and related subjects. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Health Education 122—Drugs, Health and Society (3)**

Examination of trends, philosophies, behavioral practices, and health issues associated with drug use, misuse, and abuse. Includes psychosocial, legal, historical, political and health related aspects; drug action, treatment, rehabilitation and prevention education. Focuses on the impact of psychoactive drugs on the individual and society. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Health Education 134—Fitness and Health (3)**

Theory and benefits of physical activity to fitness-related health. The study of human adaptation to exercise including such topics as cardiovascular conditioning, neuromuscular training, body composition, nutrition for performance, stretching, sports injuries and aging. Same as P E 134. Students completing Health Education 134 may not receive credit for P E 134. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Health Education 136—Nutrition, Fitness and Performance (3)**

An applied nutrition course for individuals interested in health, fitness, and athletics. Principles of nutrition are studied and applied to the physically active lifestyle. Designed for the active individual and the Fitness Specialist certificate. Pre-event food and fluid selection, nutrient requirements during activity, various nutrition supplements, muscle mass and body fat related to physical performance. Same as Food and Nutrition 136. Students completing Health Education 136 may not receive credit for Food and Nutrition 136. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Health Education 138—Drugs and Sports (2) (8 week course)**

An in-depth look at substance abuse among athletes. The focus will be on the athletic environment, drug effects, reasons for drug usage, the impact on the team, and positive alternatives. Same as P E 138. Students completing Health Education 138 may not receive credit for P E 138. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Health Education 199AD—Current Health Issues (.5-3) (1-16 week course)**

Study and discussion of topics and issues of current interest in health. Units vary according to topic selected, semester offered and number of meetings scheduled. Of interest to students majoring in health related fields or general. May be repeated with different topics. May be taken for grades or on a credit-no credit basis. One to three hours. **Transfer Credit: CSU.**

**HEATING AND AIR CONDITIONING**

**Heating and A/C 100—Refrigeration Principles (3)**

Basic refrigeration theory for those with no experience in the field. Course covers heat principles, refrigeration cycle, cycle components, refrigerant properties, system operation, trouble shooting and servicing. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 101—Air Conditioning Principles (3)**

**Prerequisite:** Heating and A/C 100.

Study of the properties of air, air movement, air requirements, control, comfort zone, heat loads, psychometric chart and air measuring instruments. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 102—Absorption Air Conditioning Systems (3)**

**Prerequisite:** Heating and A/C 101.

Theory, operation, maintenance and trouble-shooting of the lithium bromide absorption system. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 103—Air Conditioning Service (3)**

**Prerequisite:** Heating and A/C 100.

Operation, maintenance and repair of refrigeration and air conditioning. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 104—Air Conditioning—Air Balance (3)**

**Prerequisite:** Heating and A/C 101.

Operation and maintenance of air conditioning and heating ducts and their controls. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 105—Air Conditioning Controls (3)**

Heating, ventilating, refrigeration and air conditioning controls, control systems. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 106—Centrifugal Refrigeration (3)**

**Recommended preparation:** Heating and A/C 100 or 101.

Fundamentals of centrifugal refrigeration, operations, maintenance of equipment and systems and trouble shooting. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 107—Steam Plant Operation and Maintenance 1 (3)**

Basic steam cycle, boilers and accessories, water and water treatment, turbines, heat balance and performance monitoring, nuclear powered steam plants. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 108—Steam Plant Operation and Maintenance 2 (3)**

**Prerequisite:** Heating and A/C 107.  
Electricity, instrumentation, control systems, water chemistry and water treatment, motors, generators, boiler start-up and shut-down. Stationary Engineering License exam preparation. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 109—Building Energy Systems (3)**

**Prerequisite:** Heating and A/C 100.  
A practical introduction to air conditioning systems and their application in commercial, industrial and residential buildings. The primary emphasis will be on conservation from an engineering viewpoint. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 110—Pneumatic Controls (3)**

Operation and maintenance of pneumatic controls in building HVAC systems with emphasis on energy conservation practice. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 120—Applied Electricity (3)**

Application, use, and trouble-shooting of electricity in institutional or commercial buildings with emphasis on code compliance. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Heating and A/C 140—Building Automation/EMS (3)**

Fundamental applications and design of building automation systems including, but not limited to, HVAC control, lighting control, fire and security systems. Three hours. **Transfer Credit: CSU.**

**HEBREW**

**Hebrew 180—Elementary Hebrew (5)**

An intensive study of the Hebrew language. The course introduces the essentials of grammar and vocabulary necessary for basic oral and written communication in Hebrew. It also provides an insight into Jewish and Israeli culture and civilization. Designed for students seeking to fulfill foreign language requirements and for those who wish an introduction to Hebrew language and culture. This course is equivalent to two years of high school Hebrew. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**HISTORY**

**History 100—Survey of American History (3)**

A survey of the national, international, political, economic and social growth of the United States from its discovery to the present utilizing a topical and chronological approach. Designed to meet the state requirements in American History. Not designed for history majors. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 101—Afro-American History (3)**

Political, legal, economic and social themes of blacks in the United States. Emphasis is given to the Afro-American experience from African origins, through slavery, into the 20th Century. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 102—World Civilizations to the 17th Century (3) (CAN HIST 14)**

The history of world civilizations from the earliest beginnings to the 17th century, giving a general outline of political, social, economic, and cultural institutions. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 102H—Honors World Civilizations to the 17th Century (3)**

The history of world civilizations from the earliest beginnings to the 17th Century, giving a general outline of political, social, economic, and cultural institutions. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 103—World Civilizations Since the 17th Century (3) (CAN HIST 16)**

The history of world civilizations since the 17th century, giving a general outline of political, social, economic, and cultural institutions. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 103H—Honors World Civilizations Since the 17th Century (3)**

The history of world civilizations since the 17th Century, giving a general outline of political, social, economic, and cultural institutions. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 105—Family History and Genealogy (3)**

Principles, procedures, and materials for developing family genealogy and history. Emphasizes practical aspects of historical research. Relates personal family history to general social, economic, and political history. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**History 110—Mexican-American Heritage (3)**

A study of the cultural development of the Mexican-American from the Pre-Columbian period to the present. Emphasis will be placed on Mexican-American contributions to the development of the American southwest. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 115—The Other Americas (3)**

A survey of Latin American civilizations with emphasis on the economic, social, and political development since independence. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 128—History of Modern China (3)**

A survey of political, economic, social and cultural developments in Chinese civilization since the 17th century emphasizing problems and personalities associated with modernization and revolution. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 140—The California Experience (3)**

This introductory course surveys the uniqueness of the California experience. It explains the state's history with emphasis on the Indians, Spanish missions, Mexican ranchos, Gold Rush, transcontinental railroads, global population, colorful figures, 20th Century contributions to atomic and space developments and multinational corporations. Recommended for elementary education majors. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 145—History of Mexico (3)**

Mexican history from the Pre-Columbian period to the present. Social, political, economic, and cultural growth of the Mexican nation. Emphasis on Indian, Spanish, and European contributions. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 150—Ethnic Groups of the United States: Their Histories (3)**

A survey of the history of the many ethnic groups originating in Europe, Asia (including the American Indian), the Americas, the Pacific Islands, Africa, and the Middle East that make up the population of the United States. Same as Ethnic Studies 150. Students completing History 150 may not receive credit for Ethnic Studies 150. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**History 170—History of the United States to 1876 (3) (CAN HIST 8)**

A survey of American historical development from the founding of the English colonies to 1876. Emphasis is placed on the evolution of the nation's political and economic institutions, social and intellectual history, and foreign policy. Satisfies the state university requirement in American History. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 170H—Honors History of the United States to 1876 (3)

A survey of American historical development from the founding of the English colonies to 1876. Emphasis is placed on the evolution of the nation's political and economic institutions, social, and intellectual history, and foreign policy. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 175—History of the United States Since 1876 (3) (CAN HIST 10)

A continuation of the survey of American history development since 1876. Satisfies the state university requirement in American History. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 175H—Honors History of the United States Since 1876 (3)

A continuation of the survey of American history development since 1876. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 177—Economic History of the United States (3)

The economic history of the United States from the colonial period to the present. Emphasis is placed on factors and forces contributing to American economic development and attempted solutions to economic problems. Satisfies the CSU requirement in American History. Same as Economics 177. Students completing History 177 may not receive credit for Economics 177. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 179—History of the United States Since 1945 (3)

Political, economic, social and cultural development of the United States from the end of World War II (1945) to the present with special emphasis on the emergence of general trends and themes which condition and characterize the contemporary American way of life. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 180—History of Western Civilization (3) (CAN HIST 2)

The development of present day western culture from the earliest beginnings to 1715, giving a general outline of the development of social, economic, political and cultural institutions that have had a major impact on our civilization. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 180H—Honors History of Western Civilization (3)

The development of present day Western culture from the earliest beginnings to 1715, giving a general outline of the development of social, economic, political, and cultural institutions that have had a major impact upon our civilization. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## History 185—History of Western Civilization (3) (CAN HIST 4)

A study of western culture from 1715 to the present with particular emphasis on the persons, ideas, movements, and institutions which help to interpret our present day civilization. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 185H—Honors History of Western Civilization (3)

A study of western culture from 1715 to the present with particular emphasis on the persons, ideas, movements, and institutions which help to interpret our present day civilization. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 187—Women in History (3)

This course provides a broad overview of the experiences of women in world history from hunter-gatherer societies to the present. It examines how women's political, economic, social, and cultural experiences have been shaped by gender and affected by place, time, class, and race. Same as Gender Studies 187. Student completing History 187 may not receive credit for Gender Studies 187. Three hours. **Transfer Credit: CSU; UC.**

## History 190—History of Russia (3)

A survey of the political, economic, social, and cultural history of Russia from the earliest times to the present with an emphasis on Russian institutional development. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 195—History of England and Greater Britain (3)

Survey of British history with an emphasis on the development of Anglo-American institutions. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 197—Vietnam War (3)

A survey of the struggle for control of Indochina since 1946 in its military, diplomatic, political, and economic aspects. Emphasis is placed on the role of the United States in the war, as well as the war's impact on the United States. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## History 198—The World at War (3)

Political, military, diplomatic, economic, social, and cultural developments of World War II. Emphasis on the role of the United States. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## HOME ECONOMICS

(See Family and Consumer Sciences)

## HOTEL MANAGEMENT

### Hotel Management 100—Introduction to the Hospitality Industry (3)

Overview of the hospitality industry, its history and interrelationships of hotel, restaurant, travel and leisure industries. Economic and social influences of leisure. Emphasis on attitude required of a person seeking a position in the industry. Same as Food Service Management 100 and Culinary Arts 100. Students completing Hotel 100 may not receive credit for Food Service Management 100 or Culinary Arts 100. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

### Hotel Management 110—Front Office Operations (3)

This course presents a systematic approach to front office operations by detailing the flow of business through a hotel, from the reservations process to check-out and account settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations, guest service, and human resource management. Front office procedures and management are placed within the context of the overall operation of a hotel. Three hours. **Transfer Credit: CSU.**

### Hotel Management 115—Hotel Accounting (3)

Provides a basis for understanding hospitality accounting concepts and procedures, the processing of hospitality financial data, and the flow of financial information in the accounting cycle that result in the production of financial statements. Three hours. **Transfer Credit: CSU.**

### Hotel Management 116—Internship 1 (2)

**Recommended preparation:** Hotel Management 100.

An internship opportunity for students completing the core of the Hotel Management program. Students will complete a job shadow/career exploration in four different areas of hotel management. The seminar portion of the course will focus on employability skills required in the hotel industry. One hour lecture, eight hours field experience. **Transfer Credit: CSU.**

### Hotel Management 120—Housekeeping and Rooms Management (3)

This course examines the technical functions and coordination between hotel housekeeping and maintenance departments. The fundamentals of management are emphasized through proper communication skills, appropriate training, detailed work methods, quality assurance, and management techniques. Three hours. **Transfer Credit: CSU.**

### Hotel Management 180—Quality Assurance and Managing Guest Relations (3)

**Recommended preparation:** Hotel Management 110 or concurrent enrollment.

This course is designed to convey the importance of guest relation skills in a competitive market. Students will develop the skills expected of each employee, supervisor, and manager based on wants, needs, and expectations of the guest, service, and teamwork. Three hours. **Transfer Credit: CSU.**

**Hotel Management 240—Hospitality Sales and Marketing (3)**

The organization and function of the sales and marketing departments with emphasis on planning and analysis of product competition and markets. Sales tools and techniques, advertising, community relations, and the importance of guest contact are researched, analyzed, and applied. Three hours. **Transfer Credit: CSU.**

**Hotel Management 260—Supervision and Training Techniques (3)**

Procedures and problems met by hospitality operations in developing responsibility of selection, placement, orientation, training, counseling, evaluation, promotion, and disciplining of employees. Special emphasis on leadership skills of motivation, communication, decision making, work simplification, and enhancing morale. Same as Food Service Management 260. Students completing Hotel Management 260 may not receive credit for Food Service Management 260. Three hours. **Transfer Credit: CSU.**

**Hotel Management 265—Principles of Event and Meeting Management (1.5) (8 week course)**

This course addresses trends and successful business practices in event and meeting management providing the knowledge and tools necessary to improve effectiveness and profitability as an event or meeting manager. It is strongly recommended that all students enroll in this course first as it provides a thorough foundation for all future coursework. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Hotel Management 266—Organize and Manage Events and Meetings (1.5) (8 week course)**

**Recommended preparation:** Hotel Management 265 or concurrent enrollment.

A comprehensive, fast-paced, hands-on course in managing a professional event/meeting, including the practical skills and tools needed for successful planning. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Hotel Management 267—Managing Business Risks (1.5) (8 week course)**

**Recommended preparation:** Hotel Management 265 and 266 or concurrent enrollment.

This course provides a thorough and systematic approach to risk management that ensures the understanding and use of every possible safeguard to produce safe and successful events/meetings. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Hotel Management 270—Meeting and Event Marketing and Sales (1.5) (8 week course)**

**Prerequisite:** Hotel Management 265 or 266 or concurrent enrollment.

This course examines the organization, function, and techniques necessary to establish and operate a hospitality marketing plan. Emphasis on the hotel, meeting, and/or event environment, including people, product, packaging, pricing, and promotion. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Hotel Management 271—Corporate Meetings and Events (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

Review of the most successful techniques for managing trade shows, sales promotion events, staff meetings, and other corporate events. Produce meetings/events with creative flair while staying within a budget. One hour. **Transfer Credit: CSU.**

**Hotel Management 272—Meeting and Conference Practices (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

This course provides the tools necessary to successfully plan and manage local, national, and international meetings and conferences. Prepares students to take the nationally recognized International Special Event Society (ISES), Certified Special Events Professional (CSEP) and Certified Meeting Professional (CMP) exams. One hour. **Transfer Credit: CSU.**

**Hotel Management 273—Sport Event Management (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

Promoting and managing large and small sporting events, including event logistics, sponsorship, successful marketing strategies, and professional management skills. One hour. **Transfer Credit: CSU.**

**Hotel Management 274—Establish and Operate an Event Business (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

This course covers the practical skills necessary to launch, operate, and grow a successful event management business. Develop a business plan, manage finances, market, and approach event management as a small profit-making business. One hour. **Transfer Credit: CSU.**

**Hotel Management 275—Event Fund-Raising and Sponsorship (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

This course provides a comprehensive plan for identifying, evaluating, soliciting, selling, managing, and coordinating long-term fund-raising and/or sponsorship deals. Develop the skills to manage events and work successfully as a staff professional or volunteer. One hour. **Transfer Credit: CSU.**

**Hotel Management 276—Expo and Trade Show Management and Promotion (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

Practical information for designing and managing projects from a trade show exhibit to planning and coordinating an entire exposition. The growing role of expositions and trade shows in the marketing and sales processes both nationally and internationally will be discussed. One hour. **Transfer Credit: CSU.**

**Hotel Management 277—Wedding Planning as a Business (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

This course will assist in developing elements of design, coordination, and execution in preparing and planning weddings. Explore career opportunities in the lucrative bridal industry. One hour. **Transfer Credit: CSU.**

**Hotel Management 278—Catering Design and Management (1)**

**Recommended preparation:** Hotel Management 265, 266, 267, and 270.

Prepares students to understand how successful catering operations work. Explore the catering industry and learn how to work with catering professionals to improve quality while reducing costs. One hour. **Transfer Credit: CSU.**

**Hotel Management 279AD—Internship 2 (3)**

**Prerequisite:** Hotel Management 116.

Supervised internship in areas of specialization within the hotel industry. Industry related experience will enhance academic learning. Students will be required to follow dress standards set by the facility in which they are working. One hour lecture, eight unpaid non-lecture or one hour lecture, twelve hours paid non-lecture. **Transfer Credit: CSU.**

**Hotel Management 280AD—Meeting and Event Management Practicum (1) (4 week course)**

**Prerequisite:** Hotel Management 265, 266, 267, and 270.

A directed internship opportunity for students completing their practicum experience for the Meeting and Event Management certificate of completion. May be repeated for each certificate. Students who desire to acquire additional certificates in additional areas of specialization must choose another set of electives. Students will be required to follow dress standards set by the facility in which they are working. Fourteen hours internship, one hour seminar. **Transfer Credit: CSU.**

**Hotel Management 281—Hospitality Management Skills Builder (3)**

**Recommended preparation:** Hotel Management 285 or concurrent enrollment.

An in-depth study of the skills required to be an effective manager. This course covers the roles, responsibilities, situations, and personal styles of decision-making in the hotel industry, and how to put quality management tools into action to enhance service and boost business. Three hours. **Transfer Credit: CSU.**

## Hotel Management 282—Hospitality Supervisory Skills Builder (3)

**Recommended preparation:** Hotel Management 288 or 110 or concurrent enrollment.

Designed to provide supervisory principles and skills to individuals wishing to advance into or hold a supervisory or management position within the hospitality industry. Three hours. **Transfer Credit:** CSU.

## Hotel Management 285—Hotel Operations (3)

This course is designed to acquaint students with leadership, management, and quality issues facing today's hospitality industry. Focus is placed on the Malcolm Baldrige National Quality Award, continuous improvement, quality service, power and empowerment, communication skills, goal setting, high-performance teams, diversity, managing organizational change, and strategic career planning. Three hours. **Transfer Credit:** CSU.

## Hotel Management 286—Hospitality Law (3)

This course provides an awareness of the rights and responsibilities the law grants to or imposes upon hospitality businesses. Illustrations of possible consequences for failure to satisfy legal obligations are used. Legal issues raised by the Internet and the hospitality industry are discussed. Three hours. **Transfer Credit:** CSU.

## Hotel Management 288—Human Resource Management (3)

As employers continue to struggle with filling positions in a tight labor market, the role of the human resources manager becomes even more critical. This course uses case studies, Internet exhibits, and Web links that provide essential information for future HR professionals. There is a greater emphasis on legal issues including ADA and OSHA regulations, and a new focus on corporate/organizational culture. Three hours. **Transfer Credit:** CSU.

## HUMAN DEVELOPMENT

### Human Development 180—Child Development (3) (CAN FCS 14)

A study of growth and development from conception through adolescence. Emphasis on theories of physical, cognitive and psychosocial development. Observations directed to further insight into change during childhood years. This course may also be offered online. Three hours. **Transfer Credit:** CSU; UC.

### Human Development 182—Middle Childhood Development and Guidance (3)

Growth and development of the child from 5-12 years of age including characteristics of physical, cognitive, and psychosocial development, as well as techniques for guidance of the school-age child. Focus is on learning to identify common developmental qualities of children 5-12 years of age and find positive approaches to individual, group, and environmental management. Three hours. **Transfer Credit:** CSU.

### Human Development 184—Infant Development and Relationships (3)

Growth and development of the child from birth to 2 years: current theories and adult-infant relationships along with practical applications for relating to and caring for infants. Three hours. **Transfer Credit:** CSU.

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Human Development 190—Family, School, and Community Partnerships (3)

Examines the connections between the homes, schools, and communities in which children live. Explores historical, legal, social, political, and cultural influences affecting the development of children, pre-school through high school, educational access and equity. Introduces the various models and approaches for building meaningful partnerships with culturally and linguistically diverse families and communities. Three hours. **Transfer Credit:** CSU; UC.

### Human Development 210—Introduction to the Exceptional Child (3)

**Prerequisite:** Human Development 180.

Introduction to the exceptional child including the gifted, developmentally delayed, emotionally disturbed, speech and hearing impaired, visually impaired, orthopedically and neurologically impaired. The role of the teacher in supporting these children and their families and vocational opportunities are discussed. Three hours. **Transfer Credit:** CSU.

### Human Development 280—Language and Literacy Development (3)

**Prerequisite:** Human Development 180 or 182.

Comprehension and production of language. Emphasis on literacy and language development birth through age 8. Course covers theories of language, reading, and writing acquisition, as well as steps involved in the development of programs for infants, toddlers, preschool, and early primary age children. Three hours. **Transfer Credit:** CSU.

## HUMANITIES

### Humanities 100—Introduction to the Humanities (3)

A survey of the European humanities (history, philosophy, literature, and the fine arts) and their contribution to artistic, cultural, and social expression in Western civilization. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit:** CSU; UC.

### Humanities 101—Themes in Humanities (3)

An examination of how literature, philosophy, history and the arts intersect to explore the problems of man; how the humanities have viewed significant aspects of the human and his culture over widely separated points of time. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit:** CSU; UC.

### Humanities 101H—Honors Themes in Humanities (3)

An examination of how literature, philosophy, history, and the arts intersect to explore the problems of man; how the humanities have viewed significant aspects of the human and his culture over widely separated points of time. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit:** CSU; UC.

## INTERIOR DESIGN

### Interior Design N050AD—Interior Design Lab (.5-2)

A laboratory-based course to improve interior design skills. Students work independently according to a self-designed study plan they complete under the supervision of the course instructor. Periodic student-teacher conferences and a final self-assessment report are part of the course. Enrollment is open all semester. Students should be enrolled in an interior design course. Offered on a credit-no credit basis only. One and one-half hours to six hours arranged. Not applicable to AA degree.

### Interior Design 100—Fundamentals of Interior Design (3)

Application of design principles and elements in planning of total interior environments that meet individual, functional, legal, and environmental needs. Selection of all materials and products used in interior environments will be emphasized for the functional aesthetic quality. Three hours. **Transfer Credit:** CSU.

### Interior Design 105—Interior Design Studio 1 (2)

**Recommended preparation:** Interior Design 100 or concurrent enrollment.

This studio course will apply concepts and theories presented in the lecture course, Interior Design 100. Therefore, it is recommended that both courses be taken concurrently. Emphasis is placed on the design process in developing solutions for design projects. One hour lecture, three hours studio. **Transfer Credit:** CSU.

### Interior Design 120—Interior Design Careers (2)

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. Two hours. **Transfer Credit:** CSU.

### Interior Design 150—Interior Materials and Products (4)

Analysis, application and evaluation of products and materials used in interior design. Includes interior textiles, furnishings, and finish materials and products. Four hours. **Transfer Credit:** CSU.

### Interior Design 170—Space Planning (3)

**Recommended preparation:** Interior Design 100 and Architectural Technology 105.

The application of programming, theory, and techniques in residential and commercial space planning. Drafting and presentation techniques are emphasized in the studio. Two hours lecture, three hours non-lecture. **Transfer Credit:** CSU.

**Interior Design 175—Applied Color and Design Theory (4)**

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. Same as Fashion 175. Students completing Interior Design 175 may not receive credit for Fashion 175. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Interior Design 180—History of Interior Architecture and Furnishings 1 (3)**

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 on style development as it relates to social, economic, and political influences. Three hours. **Transfer Credit: CSU.**

**Interior Design 190—History of Interior Architecture and Furnishings 2 (3)**

The historical relationship between the decorative arts, period furniture, and interior architecture is illustrated in this overview of design heritage. This course begins with 16th century England and America and analyzes the influences and changes in design to the present. Style development as it relates to social, economic, and political forces is emphasized. Three hours. **Transfer Credit: CSU.**

**Interior Design 200—Interior Illustration (2)**

**Recommended preparation:** Architectural Technology 105.  
Application of the methods, techniques, and tools used for illustrating interior spaces and products. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Interior Design 210—Fundamentals of Lighting (3)**

**Recommended preparation:** Interior Design 100 and Architectural Technology 105.  
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. Three hours. **Transfer Credit: CSU.**

**Interior Design 215—Interior Design Studio 2 (2)**

**Recommended preparation:** Fashion 175 and Interior Design 170.  
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. One hour lecture, three hours studio. **Transfer Credit: CSU.**

**Interior Design 230—Business and Professional Practice (3)**

**Recommended preparation:** Interior Design 100 and 120.  
The business and professional management of an interior design practice including legal issues, project management, and business practices. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively. Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Interior Design 240—Interior Design Internship (4)**

**Recommended preparation:** Architectural Technology 180 and Interior Design 170.  
A supervised internship related to classroom-based learning at a fashion-related work site. Course will include resume writing, interviewing skills, and portfolio development. Two hours lecture, eight hours arranged. **Transfer Credit: CSU.**

**Interior Design 250—Codes and Specifications for Interior Design (2)**

This course explores federal regulations, codes and specifications concerning life-safety issues, barrier-free access (ADA and universal design requirements relative to residential and contract design). Special attention is given to performance, health-safety, and universal design when estimating and preparing specifications for interior materials and products. Two hours. **Transfer Credit: CSU.**

**Interior Design 260—Interior Design Rendering and Rapid Visualization (2)**

**Recommended preparation:** Architectural Technology 105 and Interior Design 200.  
Application of the methods, techniques, and tools used for illustrating interior spaces and products with an emphasis on rapid production. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Interior Design 265—Interior Design Studio 3 (2)**

**Recommended preparation:** Interior Design 215 and 260.  
Analysis and application of the design process to the space planning, materials and finish choices, codes application, and selection of specialized equipment unique to planning office spaces. Design solutions for offices will be developed in the studio. One hour lecture, three hours studio. **Transfer Credit: CSU.**

**Interior Design 275—Interior Design Studio 4 (2)**

**Recommended preparation:** Interior Design 215 and 260.  
Analysis and application of the design process to space planning, materials and finish choices, codes application, and selection of specialized equipment unique to planning hospitality spaces. Design solutions for hospitality to be developed in the studio. One hour lecture, three hours studio. **Transfer Credit: CSU.**

**INTERNSHIP ACADEMY**

**Internship 392AB—Internship Academy-Level 2 (1-4)**

**Prerequisite:** Concurrent enrollment in a course related to the student's identified major.  
Supervised internship for the student who has identified a major area of study. Job site experience will train the student in additional job skills that will enhance academic learning. Courses in the career field will be taken concurrently with the student's job site experience. May be either a paid or unpaid position. Three and one-half to sixteen and one-half hours. **Transfer Credit: CSU.**

**Internship 393AB—Internship Academy-Level 3 (1-4)**

**Prerequisite:** Advanced standing in career program.  
Supervised internship related to classroom-based learning at an on-the-job learning site related to student's career goal. This is an advanced internship course. May be either a paid or unpaid position. Three and one-half to sixteen and one-half hours. **Transfer Credit: CSU.**

**ITALIAN**

**Italian 180—Elementary Italian (5)**

Fundamentals of Italian language and culture with practice in reading, writing, speaking, and comprehension of Italian at the beginning, first semester level. An introduction of selected literary works by leading Italian authors and an awareness of Italian culture. Designed for students needing to fulfill foreign language requirements and for those who wish an introduction to the Italian language and culture. This course is equivalent to two years of high school Italian. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Italian 185—Elementary Italian (5)**

**Prerequisite:** Italian 180 or completion of two years of high school Italian with a grade of 'C' or better.  
Continuation of Italian 180. Emphasis on developing effective and correct skills in conversation, reading, writing, and comprehension in the Italian language at a second semester level, and a broader scope to selected literary works and cultural awareness. This course is equivalent to three years of high school Italian. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Italian 199—Current Topics in Italian (1-5)**

**Prerequisite:** One semester of college-level Italian.  
Group participation by level to develop skills in using Italian in oral and written form. Study and discussion of major current social, economical and political issues in Italy and their impact on Italian traditions through a historical perspective. Students will be assigned to groups according to their existing levels of Italian. May be taken for grades or on a credit-no credit basis. One to five hours. **Transfer Credit: CSU.**

## Italian 280—Intermediate Italian (4)

**Prerequisite:** Italian 185.

Continuation of Italian 185. Includes further study of Italian language, culture and literature with practice in reading, writing, speaking and comprehension of Italian at the third semester level. A broader scope to selected literary work and cultural awareness. May be taken for grades or on a credit no-credit basis. Four hours. **Transfer Credit: CSU; UC.**

## Italian 285—Intermediate Italian (4)

**Prerequisite:** Italian 280.

Continuation of Italian 280. A review of grammar with concentration on original oral and written expression based on selected readings and lectures on Italian literature and culture. May be taken for grades or on a credit no-credit basis. Four hours. **Transfer Credit: CSU; UC.**

## JAPANESE

### Japanese 180—Elementary Japanese (5)

This first course in elementary Japanese emphasizes all four basic language skills in modern Japanese: listening, speaking, reading, and writing. Also, studying the differences and similarities between cultures will help develop an appreciation of cultural diversity. This course is equivalent to two years of high school Japanese. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

### Japanese 185—Elementary Japanese (5)

**Prerequisite:** Japanese 180 or completion of two years of high school Japanese with a grade of 'C' or better.

Continuation of Japanese 180. Emphasis on the continued development of elementary proficiency in reading, writing, speaking, and listening. Further study of differences and similarities between cultures. This course is equivalent to three years of high school Japanese. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

### Japanese 280—Intermediate Japanese (5)

**Prerequisite:** Japanese 185.

Continuation of Japanese 185. Includes further study of the Japanese language and cultures with practice in speaking, listening, reading, and writing at the intermediate level. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

### Japanese 285—Intermediate Japanese (5)

**Prerequisite:** Japanese 280.

Continuation of Japanese 280. Includes further study of the Japanese language and cultures with practice in speaking, listening, reading, and writing at the intermediate level. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## JOURNALISM

### Journalism 110—News Writing and Reporting (3)

**Prerequisite:** English 100, or concurrent enrollment.

Beginning journalists will acquire the skills to write practical news stories under deadline pressure with a focus on accuracy, balance, and style. Writing assignments will include police stories, obituaries, speech coverage, round-ups, and feature stories. Also covered: basic interviewing techniques, journalistic style, editing, the importance of a free press, and the media's responsibilities in reporting the news. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Journalism 111—Editing and Production Skills (1) (8 week course)

**Prerequisite:** Eligibility for English N098 or ESL 155AB or qualifying OCC placement.

Beginning journalists will acquire skills in accurate copy editing and newspaper production. Students will use the Associated Press Stylebook and learn various editing marks, beginning page layout, and paste-up skills. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

### Journalism 115AD—Newspaper Production (3-7)

**Prerequisite:** Journalism 110 or concurrent enrollment.

Students will assist in all aspects of newspaper planning, writing, design, and production. Requires writing news and feature stories on deadline, commentary, writing headlines, designing pages, editing, and layout techniques. Students will use state-of-the-art computer design, graphics, and word processing software in a professional setting. May be taken for grades or on a credit-no credit basis. Two hours lecture, five to seventeen hours non-lecture. **Transfer Credit: CSU.**

### Journalism 117AD—Feature Writing (3)

**Prerequisite:** Journalism 110 and English 100 or concurrent enrollment.

A writing workshop focusing on student writing and marketing in-depth non-fiction feature articles. Emphasis will be on guiding students and developing interesting non-fiction stories from the idea stage through publication and finding suitable markets for publication. The course is designed for beginning, intermediate, and advanced writers seeking practice and input in producing lengthy feature articles. Same as English 117AD. Students completing Journalism 117AD may not receive credit for English 117AD. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Journalism 185AB—Photojournalism (3)

**Prerequisite:** Digital Media Arts 181.

This course covers the fundamentals of photojournalism with students gaining practical experience in the creative process and techniques of making photographs for publication. Work will be assigned for publication in the campus newspaper, Coast Report. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

### Journalism 186AB—Advanced Photojournalism (3)

**Prerequisite:** Journalism 185AB.

This course is a continuation of Journalism 185AB. Instruction is offered at intermediate/advanced and advanced levels. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

### Journalism 215AD—Coast Report Editorial Board (1)

**Prerequisite:** Must be editor on Coast Report staff.

This course is for the editorial board of the student newspaper. The editors will meet once per week to discuss policy matters, the upcoming issue and the instructor's critique of the past one. The editors will also spend time supervising the paste-up of the paper. May be taken for grades or on a credit-no credit basis. One hour. **Transfer Credit: CSU.**

**LEADERSHIP STUDIES**

**Leadership Studies 140—Peer Mentoring and Student Leadership (1)**

An introductory course designed for all students interested or presently serving in leadership roles which may include clubs and organizational positions on campus or within the community. Emphasis on training to be a general leadership mentor to new students on campus, theory, governing structure, policies and operations of the Associated Students. Basic parliamentary procedure through development of leadership and organizational skills. May be taken for grades or on a credit-no credit basis. One hour. **Transfer Credit: CSU.**

**Leadership Studies 150AD—Student Leadership and Governance (3)**

**Recommended preparation:** Leadership Studies 140 or concurrent enrollment.

A service learning course designed for continued development of leadership skills in a hands-on workshop environment. Class members will serve as student board of trustees, president, vice president, ASOCC staff members, or in clubs or organizational positions. Emphasis will be on team participation in governing operation and policy making. May be taken for grades or on a credit-no credit basis. Two hours non-lecture, seven hours arranged. **Transfer Credit: CSU.**

**Leadership Studies 180—Personal Leadership (3)**

An introduction to the concepts and personal skills related to leadership on campus, in the community, and in business. The course progresses from a study of leadership traits and models to assessment and analysis of personal skills and attitudes and ends with the development of individual student plans for leadership development. Three hours. **Transfer Credit: CSU.**

**Leadership Studies 200—Organizational Leadership (3)**

Explore advanced topics in leadership and apply them to personal lives and careers in private or public sector organizations. Topics include the crisis in leadership, change and chaos theory, conflict resolution, power and influence, diversity and leadership, and leading teams. Students develop and implement a plan to apply new skills and knowledge to an organization to which they belong. Three hours. **Transfer Credit: CSU.**

**LEARNING SKILLS**

**Learning Skills N001AD—Basic Skills Remediation (1-3)**

**Prerequisite:** Completion of the California Community College Learning Disabilities Assessment.

Provides individualized remedial instruction to students with learning disabilities. The program is designed to help a student improve the basic academic skills of reading, spelling and arithmetic. Offered on a credit-no credit basis only. Three-nine hours non-lecture. Not applicable to AA degree.

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively. Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**MACHINE TECHNOLOGY**

**Machine Technology 100AB—Introduction to Machine Shop (3)**

This course familiarizes the student with the basics of machine shop safety practices, common non-precision and basic precision measuring tools, hand tools, simple blueprint reading, simple lathe, mill, and drill press operations. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Machine Technology 105—Lathe (5)**

**Recommended preparation:** Machine Technology 100AB and 120 and Technology 040.

A basic course in engine lathe operation to include ID and OD threading, knurling, boring, turning, facing, and cutting tapers. This course also includes exposure to the chucker lathe, tracer lathe, and the turret lathe. Safety and measurement are also emphasized. Three hours lecture, five hours laboratory. **Transfer Credit: CSU.**

**Machine Technology 110—Milling Machine (5)**

**Recommended preparation:** Machine Technology 100AB and 120 and Technology 040.

A basic course in milling machine operation to include both the vertical and horizontal milling usage, theory and usage of tools and accessories. Safety is also emphasized. Three hours lecture, five hours laboratory. **Transfer Credit: CSU.**

**Machine Technology 115—Production Machining Techniques (2.5)**

**Recommended preparation:** Machine Technology 100AB and 105 and 110.

This course emphasizes production machining. Set up and running of more than one part on the following machines: chucker lathe, ID and OD grinder, vertical mill, horizontal mill, and bench model CNC lathe and mill. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**Machine Technology 120—Measurement and Blueprint Reading (3)**

A study of blueprint reading and measuring systems used in manufacturing, including an in-depth study of the basic and advanced measuring tools used by machinists. Common blueprint formats and dimension practices will be explored. Geometric dimensioning and tolerancing will be discussed. Three hours. **Transfer Credit: CSU.**

**Machine Technology 121—Computations for Machinists (3)**

A course in applied technical computations for students in machine technology and CNC studies. Topics include basic computations, shop formulas and equations, and applied trigonometry used in the machining industries. Three hours. **Transfer Credit: CSU.**

**Machine Technology 125—Computerized Numerical Control Machine Operation (3)**

**Recommended preparation:** Machine Technology 105 and 110.

A basic course in the operation of a computerized numerically controlled lathes and mills, including machine functions, tooling setup, reading machine language, part setup, and machine manipulation. Includes production of parts on both lathes and mills. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Machine Technology 126—Advanced CNC Machine Operation (2)**

**Recommended preparation:** Machine Technology 125.

Designed to fine tune the skills of CNC machine setup. Students will learn advanced features of state-of-the-art CNC lathes and mills, make their own fixtures, write the necessary programs, and produce the parts on CNC machines. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Machine Technology 130—Introduction to Computerized Numerical Control and Manual Programming (4)**

**Recommended preparation:** Machine Technology 105 and 110.

A basic course in computerized numerical control of machine tools. Types of control systems, capabilities, and the different machine languages are examined. Elementary parts programming in two-axis systems, including all steps necessary to complete a part on both CNC lathes and mills. Four hours. **Transfer Credit: CSU.**

**Machine Technology 133AB—CNC Programming-Mastercam (3)**

**Recommended preparation:** Computer and High Technology 100 or Computer Information Systems 100 or Machine Technology 130.

Students will receive hands-on training in the use of Mastercam CNC programming software. The basics of two-dimensional part programming, including geometry development, milling, drilling, tapping, pocketing, and more will be explored. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Machine Technology 134AB—Advanced CNC Programming-Mastercam (3)**

**Prerequisite:** Machine Technology 133AB.

Students will receive hands-on training in advanced concepts of computer-assisted parts programming using Mastercam. Students will develop relatively complex part programs to include surfacing and cutter movement. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Machine Technology 141AB—Mastercam Lathe (1.5)**

**Prerequisite:** Machine Technology 133AB.

A course designed for the student who has completed the basic Mastercam course, Machine Technology 133, and wishes to have concentrated instruction on CNC lathe programming on lathe only. One hour lecture, one hour laboratory. **Transfer Credit: CSU.**

## Machine Technology 142AB—Mastercam Solids (2)

**Prerequisite:** Machine Technology 133AB.

An intermediate course in CNC programming using the solids feature of Mastercam. This course will introduce the student to solid modeling creation, Boolean addition and subtraction, as well as filleting, chamfering, and the machining of solids models. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

## Machine Technology 150—Tool and Cutter Grinding (2.5)

**Recommended preparation:** Machine Technology 100AB.

A basic course in the sharpening of common cutting tools such as drills, reamers, countersinks, counter bores, and end mills. Emphasis is on the tool and cutter grinder, but several other types of sharpening machines will be included. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

## Machine Technology 175—Dimensioning and Tolerancing (3)

**Recommended preparation:** Technology 040.

A course in reading and using the latest ANSI standards for geometric dimensioning and tolerancing. Three hours. **Transfer Credit: CSU.**

## Machine Technology 190—Elementary Metallurgy (2)

An elementary course describing the relationship between microstructure, composition, heat and mechanical treatment, and the physical properties of metals and alloys and their relationship to design and machining. Two hours. **Transfer Credit: CSU.**

## Machine Technology 195—Manufacturing Processes (3)

A study of engineering materials and manufacturing processes from the viewpoint of the machinist, draftsman, and designer. Course discusses the problems of material selection coupled with economical manufacturing methods. Three hours. **Transfer Credit: CSU.**

## Machine Technology 200—Tooling (2.5)

**Recommended preparation:** Machine Technology 100AB, 105, 110, and 120.

A basic course in the making of jigs, fixtures, and molds. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

## MANAGEMENT

### Management 100—Applied Management for Public and Private Organizations (3)

An introduction to the tools, practices, policies, and concepts of management in modern organizations. Emphasis will be on management, the functions of planning, organizing, leading, and controlling, communication, decision-making, and the manager's role as a leader in organizational change. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Management 115—Human Relations and Supervision (3)

A behavioral science approach to human relations in business with special emphasis on developing a student's leadership qualities, understanding, personal characteristics, and attitudes desirable for advancement to greater responsibilities in business management. The course is designed for on-the-job trainees, or mid-management trainees who are seeking further insights in dealing with co-workers and management. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

### Management 239—Professional Communication (3)

Designed for persons wanting communication skills for professional positions, including marketing, supervisory, and management. Study of communication functions, choices, and roles within work settings. Practice in routine information exchange, oral reporting, negotiating conflict, persuasive speaking, and E-communication. Focuses on verbal, nonverbal, and writing skills necessary to communicate successfully in one-on-one, small- and large-group settings. Same as Business 239. Students completing Management 239 may not receive credit for Business 239. Three hours. **Transfer Credit: CSU.**

## MARINE ACTIVITIES

### Marine Activities 147AB—Introduction to Sailing (1) (8 week course)

**Prerequisite:** Ability to swim 50 yards and tread water for five minutes. This prerequisite will be validated in class during the first week of the course.

Introduces the novice to the fundamentals of sailing through dockside lectures and hands-on experience in Lido 14 dinghies. Points of sail, basic terminology, tacking, jibing, theory, and safety are emphasized. Same as Physical Education 147AB. Students completing Marine Activities 147AB may not receive credit for Physical Education 147AB. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

### Marine Activities 148AB—Introduction to Keel Boats (1) (8 week course)

**Prerequisite:** Ability to swim 50 yards and tread water for five minutes. Basic sailing ability. This prerequisite will be validated in class during the first week of the course.

This course introduces the intermediate sailor to the fundamentals of sailing through dockside lectures and hands-on experience in Shields 30 sloops. Points of sail, basic terminology, tacking, jibing, theory, and safety are emphasized. Same as Physical Education 148AB. Students completing Marine Activities 148AB may not receive credit for Physical Education 148AB. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

### Marine Activities 149AB—Introduction to Ocean Sailing (1) (8 week course)

**Prerequisite:** Ability to swim 50 yards and tread water for five minutes. Knowledge of basic sailing principles. This prerequisite will be validated in class during the first week of the course.

This course introduces the fundamentals of ocean sailing through dockside lectures and hands-on experience aboard large sailing vessels. Sail handling, winch operation, steering, reefing, and line handling are emphasized. Same as Physical Education 149AB. Students completing Marine Activities 149AB may not receive credit for Physical Education 149AB. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

### Marine Activities 150AB—Coastal Navigation (3)

Starting with the basics of navigation, students will be able to interpret charts, plot positions and courses, utilize navigational publications, and determine the effects of tides and currents relating to coastal piloting. Passage planning and boating safety legal requirements will be included in this course. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

### Marine Activities 159AD—Outrigger Canoeing (.5-1.5) (8-16 week course)

**Prerequisite:** Ability to swim 100 yards and tread water for five minutes. This prerequisite will be validated in class during the first week of the course.

This course is designed to teach the fundamental outrigger canoeing techniques needed to become a safe and effective paddler. There will be a fee for use of equipment and use of the off-campus facility. Same as Physical Education 159AD. Students completing Marine Activities 159AD may not receive credit for Physical Education 159AD. May be taken for grades or on a credit-no credit basis. .5-.75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

**Marine Activities 160AD—Kayaking (.5-1.5) (8-16 week course)**

**Prerequisite:** Students must be able to swim 100 yards and tread water for five minutes. This prerequisite will be validated in class during the first week of the course.

This course is designed to teach fundamental kayaking techniques needed to become a safe and effective kayaker. There will be a fee for use of equipment and use of the off-campus facility. Same as Physical Education 160AD. Students completing Marine Activities 160AD may not receive credit for Physical Education 160AD. May be taken for grades or on a credit-no credit basis. .5-.75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

**MARINE SCIENCE**

**Marine Science 100—Oceanography (3)**

An orientation to the marine sciences including considerations of physical and chemical properties of the sea, the sea-air interface, the biology of the sea, the geology of the ocean basins, the sea as a physical, chemical, biological and recreational resource, and the obligation of mankind to control further contamination of the environment. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

**Marine Science 100H—Honors Oceanography (3)**

An orientation to the marine sciences, including considerations of physical and chemical properties of the sea, the sea-air interface, the biology of the sea, the geology of the ocean basins, the sea as a physical, chemical, biological and recreational resource, and the obligations of mankind to control further contamination of the environment. Three hours. **Transfer Credit: CSU; UC.**

**Marine Science 100L—Oceanography Laboratory (1)**

**Prerequisite:** Marine Science 100 with a grade of 'C' or better, or concurrent enrollment. (If student drops from Marine Science 100, the student must also drop Marine Science 100L.)

An orientation to marine science research process, techniques, equipment, institutions, and training/education centers. Investigations of physical and chemical properties of the sea, conditions of the air/sea/land interface, review of biological taxonomy and classification, study of longitude, latitude, ocean basin geography and geology. Evaluation of the sea as a physical, chemical, biological and recreational resource. Analysis of human efforts to control pollution, manage fisheries and monitor the ocean world. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Marine Science 100LH—Honors Oceanography Laboratory (1)**

**Prerequisite:** Marine Science 100 or 100H, or concurrent enrollment.

An orientation to marine science research process, techniques, equipment, institutions, and training/education centers. Investigations of physical and chemical properties of the sea, conditions of the air/sea/land interface, review of biological taxonomy and classification, study of longitude, latitude, ocean basin geography and geology. Evaluation of the sea as a physical, chemical, biological, and recreational resource. Analysis of human efforts to control pollution, manage fisheries, and monitor the ocean world. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Marine Science 120—Marine Aquarium Science (1)**

**Recommended preparation:** Marine Science 100 or concurrent enrollment.

This course introduces students to the science of aquarimology and provides experience working in a small public aquarium. Students will learn animal husbandry, disease control, aquarium water chemistry, and methods of filtration and cleaning. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Marine Science 180—Marine Biology (3)**

**Prerequisite:** Marine Science 100.

The life of the world's oceans including principles of cell biology as it relates to the marine situation, energy flow through living systems, the evolution of marine life, the taxonomy of marine plants and animals, an overview of marine habitats and their organisms, intertidal zonation, plankton biology, marine mammals, pollution and its relations to marine biology, and discussion of currently applicable topics. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Marine Science 180L—Marine Biology Lab (1)**

**Prerequisite:** Marine Science 180, or concurrent enrollment.

An exploration of the principles of marine biology using, whenever possible, living organisms in natural surroundings. Included will be plankton biology, the taxonomy and habits of common eastern Pacific marine plants and animals, aspects of intertidal zonation, analysis of fouling communities, and field trips to sea to observe marine birds and mammals. May be taken for grades or on a credit-no credit basis. Three hours non-lecture. **Transfer Credit: CSU; UC.**

**Marine Science 185—Coastal Oceanography (3)**

**Prerequisite:** Marine Science 100.

Study of the physical, chemical, geological, and biological oceanography of the coastal ocean of Southern California and northeast Pacific Ocean. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Marine Science 185L—Coastal Oceanography Lab (1)**

**Prerequisite:** Marine Science 185, or concurrent enrollment.

Scientific laboratory and field investigation of physical, geological and chemical oceanography related to the Southern California coastal ocean. May be taken for grades or on a credit-no credit basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Marine Science 187—Marine Mammals (3)**

**Prerequisite:** Marine Science 100.

**Recommended preparation:** Marine Science 180 and 185.

The natural history, ecology population dynamics, communications and intelligence of marine mammals including whales, dolphins, seals and sea lions, sea otters, sea cows and polar bears. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**MARKETING**

**Marketing 100—Introduction to Marketing (3)**

A survey of the major marketing topics of interest to marketing students and practitioners. Studies include: major institutions involved in the marketing process, major tools used by marketers, and environmental forces affecting the marketing process. Emphasis is placed on effective marketing strategy planning. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Marketing 110—Professional Selling (3)**

An introductory course in personal selling that covers the basic steps in organizing, developing, and preparing a professional sales presentation. Emphasizes the relational selling process by focusing on sales communication skills that are used to build effective buyer and seller relationships. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Marketing 115—Sales Management (3)**

This course explores the function of sales and the relationship to the overall marketing program. Topics include setting sales objectives, formulation of sales strategy, development of a sales organization, selecting and working with distributors and dealers, control of sales operations, and the functions of management. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Marketing 130—Principles of Advertising (3)**

This course examines the major components of modern advertising and promotion. Key areas explored include the social and economic role of advertising, controls over advertising, planning of the campaign, the role of research, media playing, advertising strategy, and coordination with other elements of marketing. Three hours. **Transfer Credit: CSU.**

## Marketing 142—Direct Mail and Marketing (1.5) (8 week course)

Selling to consumers by mail, catalogs, telemarketing, consumer publications, broadcast media, and business-to-business direct marketing. Includes planning, segmentation, budgeting, creating the message, and the legal environment. Three hours. **Transfer Credit: CSU.**

## Marketing 150—International Marketing (3)

Theoretical and practical concepts of international marketing, market surveys, distribution, advertising, and pricing policies are discussed relative to the cultural, political, legal, and economic conditions found overseas. Changing international marketing conditions will be studied in conjunction with the total global business environment. Three hours. **Transfer Credit: CSU.**

## Marketing 152—Export-Import Procedures (3)

An overview of documentation practices and procedures used in international trade and an introduction to government laws and regulations affecting the flow of foreign commerce. Changing international market conditions will be studied in conjunction with the total global business environment. Three hours. **Transfer Credit: CSU.**

## Marketing 200—Retail Store Management (3)

Studies dealing with the operations of an established retail business. Problems of merchandising include buying, pricing, stock control, credit control, public and personnel relations. Emphasis upon solution of actual retail problems using the case study method. Three hours. **Transfer Credit: CSU.**

## Marketing 210—Professional Selling, Advanced (3)

**Prerequisite:** Marketing 110.

Intensive skill building and sales training in the following areas: building, buyer rapport, prospecting, time and territory management, determining buyer's needs, effective product presentation, managing buying resistance, active listening, recognizing buying signals, closing, taking leave and servicing the account. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Marketing 220—Retail Buying (3)

**Recommended preparation:** Math 010 or Business 125.

A study of the principles and techniques of buying for retail organizations, including merchandise selection, planning, control, and use and interpretation of merchandise management reports. Three hours. **Transfer Credit: CSU.**

## Marketing 221AB—Retail Business Training (2-3)

Practical experience in operating a retail fashion store. Students perform the buying, accounting, advertising, visual display, merchandising, management training, and sales at Windjammer Fashions, an on-campus store. One hour lecture, five to ten hours on the job. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## MASS COMMUNICATIONS

### Mass Communications 100—Introduction to Mass Communications (3) (CAN JOUR 4)

A survey of the major forms of mass media and their influence on the artistic, cultural, and social expression of contemporary society. Students will develop greater sensitivity to the aesthetics and evaluation of radio, television, film, print media, and the internet. Public relations, advertising, media law, and ethics will also be covered. Students will learn analytical skills to help them become critical consumers and developers of the media. Three hours. **Transfer Credit: CSU; UC.**

### Mass Communications 140—Public Relations (3)

**Recommended preparation:** English 100.

Introduction to the basic principles, components, and techniques of effective public relations. Topics include publicity and promotion, advertising, media and community relations, and approaches to problem solving. Same as Business 140. Students completing Mass Communications 140 may not receive credit for Business 140. Three hours. **Transfer Credit: CSU.**

## MATHEMATICS

*Competence in arithmetic is expected for students enrolling in all mathematics courses. The passing of a placement test is required in most mathematics courses. A grade of 'C' or better is required in prerequisite courses.*

*Students who have had a lapse in the mathematics sequence of two years or more are strongly advised to retake the previous mathematics course (excluding plane geometry) before continuing in the mathematics sequence.*

*In all mathematics courses except Mathematics 021 and Business 125, students other than majors in mathematics, engineering and physical sciences will have the option of credit-no credit or grade. Credit in mathematics courses means 'C' performance or better.*

*Courses marked with an \* are offered in both conventional and self-paced sections. In self-paced sections, students may start anytime and complete at their own rate.*

### \*Mathematics N005—Practical Math (3)

**Prerequisite:** Math placement test required.

Practical math involves the fundamental operations of arithmetic on integers, fractions, decimals and percents (without calculators), and consumer applications. The course includes introductions to ratio and proportion, measurement, geometry, and statistics. Applied problems will be emphasized throughout the course. May be taken for grades or on a credit-no credit basis. Three hours. Not applicable to AA degree.

### \*Mathematics N008—Pre-Algebra (3)

**Prerequisite:** Math N005 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Pre-algebra will introduce basic operations of algebra including signed numbers, exponents, first degree equations, special products, applied problems, factoring, rational expressions, radicals, proportions, and the rectangular coordinate system. These topics will utilize the student's working knowledge of decimals, fractions, and percents. May be taken for grades or on a credit-no credit basis. Three hours. Not applicable to AA degree.

### \*Mathematics 010—Elementary Algebra (4)

**Prerequisite:** Math N008 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Operations of algebra including first degree equations and inequalities, exponents, special products and factoring, rational expressions, graphing, radicals, and quadratic equations will be presented. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours.

### \*Mathematics 020—Plane Geometry (3)

**Prerequisite:** Math 010 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Definition of basic geometry terms: point, line, plane, angle. Postulates and theorems involving angles, congruence, lines, circles, general polygons, triangles, inequalities, and solid geometry will be covered. May be taken for grades or on a credit-no credit basis. Three hours.

### \*Mathematics N021—Topics in Geometry (Self-paced only) (1)

**Prerequisite:** Math 010 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Basic terminology and facts of geometry including angles, triangles, polygons, congruence, similarity, area, circles, and constructions presented informally. Offered on a credit-no credit basis only. (Credit at 75 percent mastery.) One hour non-lecture. Not applicable to AA degree.

**\*Mathematics 030—Intermediate Algebra (4)**

**Prerequisite:** Math 010 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Topics covered will be functions, linear and quadratic equations, curve sketching, exponents, rational expressions, rational exponents, logarithms, variations, systems of equations, determinants, Cramer's Rule, and conic sections. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours.

**Mathematics 070—Intermediate Algebra and Trigonometry (5)**

**Prerequisite:** Math 010 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

**Recommended preparation:** Math 020.

Topics covered will be functions, linear and quadratic equations, curve sketching, exponents, rational expressions, rational exponents, logarithms, systems of equations, determinants, Cramer's Rule, conic sections, trigonometric and inverse trigonometric functions, graphs of trigonometric functions, identities and trigonometric equations, solutions for triangles, and complex numbers. This is an intense and fast-paced course designed for students intending to continue into precalculus. May be taken for grades or on a credit-no credit basis. Five hours.

**Mathematics 100—Liberal Arts Mathematics (3) (CAN MATH 2)**

**Prerequisite:** Math 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Designed for students whose majors do not require calculus, this applications-oriented course emphasizes management science optimization techniques, introductory descriptive and inferential statistics, weighted voting systems analysis, game theory principles, decision-making strategies, growth trends, and pattern analysis. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Mathematics 103—Activity-Based Statistics for Teachers (3)**

**Prerequisite:** Math 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Designed for prospective teachers, this course is an activity-based exploration of statistics aligned with the California State Mathematics Standards for K-12. Topics include data representation and analysis, randomization and sampling, measures of central tendency and variability, hypothesizing and statistical inference. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Mathematics 104—Mathematics for Elementary Teachers 1 (3) (CAN MATH 4)**

**Prerequisite:** Math 020 and 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Designed for prospective elementary school teachers, the course emphasizes mathematical structure and problem solving techniques associated with the real number system, elementary number theory, ratio and proportion, set theory, elementary logic, and percent. Instructional delivery design techniques and technological applications will be explored. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

**Mathematics 106—Mathematics for Elementary Teachers 2 (3)**

**Prerequisite:** Math 104 with grade of 'C' or better.

Designed for prospective teachers, the course emphasizes elementary school applications of geometric shapes, tessellations, measurement, congruence and similarity, coordinate and transformational geometry. Instructional delivery design techniques and technological applications will be explored. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

**\*Mathematics 120—Trigonometry (3) (CAN MATH 8)**

**Prerequisite:** Math 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

**Recommended preparation:** Mathematics 020.

Topics covered will be trigonometric (circular) and inverse trigonometric functions, graphs of trigonometric functions, identities and conditional equations, solutions for triangles, vectors, complex numbers and applications. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Mathematics 130—College Algebra (4) (CAN MATH 10)**

**Prerequisite:** Math 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Topics include linear, quadratic, rational, logarithmic, and exponential functions and their graphs, systems of equations, matrices, sequences, series, and basic combinations. This course prepares students to enter Math 157 but does not provide sufficient preparation to enter Math 180. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

**Mathematics 154—Finite Mathematics with Applications (4) (CAN MATH 12)**

**Prerequisite:** Math 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Mathematical models, properties of sets, functions, elementary curve fitting, finance, matrix operations, linear programming by the graphic and simplex methods, Markov matrices, elementary probability, and game theory. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

**Mathematics 157—Calculus for Biological, Management and Social Sciences (4) (CAN MATH 34)**

**Prerequisite:** Math 130 or 154 or 170 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Analytic geometry and limits; introduction to differential and integral calculus with applications to include polynomial, rational, exponential and logarithmic functions and their graphs. Multivariate calculus to include partial differentiation and multiple integration. Introduction to the calculus of probability with applications. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Mathematics 160—Introduction to Statistics (3) (CAN STAT 2)**

**Prerequisite:** Math 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

A general education course covering descriptive statistics, probability, binomial and normal distributions, variation, linear regression, correlation and hypothesis testing. Applications taken from natural sciences, social sciences, business, and everyday life. Students completing Mathematics 160 may petition for credit for Psychology 160. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Mathematics 160H—Honors Introduction to Statistics (3)**

**Prerequisite:** Math 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

A general education course. Topics include descriptive statistics, probability, binomial and normal distributions, variation, linear regression, correlation and hypothesis testing. Applications taken from natural sciences, social sciences, business, and everyday life. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Mathematics 170—Precalculus Mathematics (4) (CAN MATH 16)**

**Prerequisite:** Math 070 or 120 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

The course includes structure and properties of number systems; applications, solution and graphs of polynomials, rational, exponential, logarithmic and trigonometric functions; matrices, sequences and series; analytic geometry. Prepares students for Mathematics 180. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 180—Calculus 1 (4) (CAN MATH 18)

**Prerequisite:** Math 170 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

This is the first course in the calculus sequence. It satisfies the sequence for majors in mathematics, science, or engineering. Topics include limits, derivatives of algebraic and transcendental functions, applications of derivatives, indefinite integrals, definite integrals, the Fundamental Theorem of Calculus, and applications of integration. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 180H—Honors Calculus 1 (4)

**Prerequisite:** Math 170 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

This is the first course in the calculus sequence. It satisfies the sequence for majors in mathematics, science, or engineering. Topics include limits, derivatives of algebraic and transcendental functions, applications of derivatives, indefinite integrals, definite integrals, the Fundamental Theorem of Calculus, and applications of integration. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 182H—Honors Calculus 1 and 2 (5)

**Prerequisite:** Math 170 with grade of 'C' or better and either advanced placement calculus in high school or Mathematics 157 or 180 with grade of 'C' or better.

An in-depth honors level study of elementary differential and integral calculus which includes exponential, logarithmic and trigonometric functions, techniques of integrations, sequences and series, and applications. Combines contents of Math 180 and 185 with emphasis on theory and challenging problems in a fast-paced course for well-prepared students with previous calculus experience. May be taken for grades or on a credit-no-credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 185—Calculus 2 (4) (CAN MATH 20)

**Prerequisite:** Math 180 or 180H with grade of 'C' or better.

This is the second course in the calculus sequence. It satisfies the sequence for majors in mathematics, science, or engineering. Topics include techniques and some applications of integration, calculus applied to parametric curves and polar curves, analytic geometry, sequences, series, and an introduction to differential equations. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 185H—Honors Calculus 2 (4)

**Prerequisite:** Math 180 or 180H with grade of 'C' or better.

This is the second course in the calculus sequence. It satisfies the sequence for majors in mathematics, science, or engineering. Topics include techniques and some applications of integration, calculus applied to parametric curves and polar curves, analytic geometry, sequences, series, and an introduction to differential equations. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Mathematics 220—Introduction to Symbolic Logic (3) (CAN PHIL 6)

Translate simple, quantified, and multiple quantified English sentences to symbolic form. Determine the validity of arguments containing simple sentences and sentences involving single quantification. Prove arguments composed of simple sentences, sentences involving single and multiple quantification. Same as Philosophy 220. Students completing Math 220 may not receive credit for Philosophy 220. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Mathematics 230—Discrete Mathematics (5) (CAN CSCI 26)

**Prerequisite:** Math 182H or 185 or 185H with grade of 'C' or better.

Introduction to logic, sets, relations, algorithms, number theory, combinatorics, graphs, trees, and Boolean algebra. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 235—Applied Linear Algebra (3) (CAN MATH 26)

**Prerequisite:** Math 185 or 185H or 182H with grade of 'C' or better.

Introduction to linear algebra, classical linear algebra problems, and applications to computer science and related technologies including matrices, determinants, linear spaces, linear transformations, and eigenvalues. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU; UC.**

## Mathematics 260—Probability (3)

**Prerequisite:** Math 182H or 180 or 157 with grade of 'C' or better.

Calculus based probability with practical applications. For science majors and students expecting to do advanced work in biological, management or social sciences. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Mathematics 280—Calculus 3 (4) (CAN MATH 22)

**Prerequisite:** Math 182H, 185 or 185H with grade of 'C' or better.

Multivariable calculus including vectors, vector-valued functions, functions of several variables, partial derivatives, multiple integrals, calculus of vector fields, Green's Theorem, Stokes' Theorem, and the Divergence Theorem. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 280H—Honors Calculus 3 (5)

**Prerequisite:** Math 182H or 185 or 185H with grade of 'C' or better.

Mathematics 280 in a regular section with an additional one hour per week of honors material. Multivariable calculus including vectors, vector-valued functions, functions of several variables, partial derivatives, multiple integrals, calculus of vector fields, Green's Theorem, Stokes' Theorem, and the Divergence Theorem. Selected introductory topics in differential geometry will be discussed in the honors-specific portion of this course. May be taken for grades or on a credit no-credit basis. Six hours. **Transfer Credit: CSU; UC.**

## Mathematics 285—Introduction to Linear Algebra and Differential Equations (4) (CAN MATH 24)

**Prerequisite:** Math 182H or 185 or 185H with grade of 'C' or better.

Introduction to linear algebra and differential equations. Topics include matrices, determinants, vector spaces, linear systems of equations, inner product spaces, first and second order differential equations, systems of differential equations, and Laplace transforms. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

## Mathematics 285H—Honors Introduction to Linear Algebra and Differential Equations (5)

**Prerequisite:** Math 182H or 185 or 185H with grade of 'C' or better.

Introduction to linear algebra and differential equations. Topics include matrices, determinants, vector spaces, linear systems of equations, linear product spaces, first and second order differential equations, systems of differential equations, and Laplace transforms. Additional honors topics include Jacobian matrices, properties of  $\mathbb{R}^3$  and simple abstract topological spaces, and some exterior algebra. May be taken for grades or on a credit-no credit basis. Six hours. **Transfer Credit: CSU; UC.**

## Mathematics 290H—Honors Introduction to Tensors and Calculus on Manifolds (5)

**Prerequisite:** Math 280 or 280H AND 285 or 285H with grade of 'C' or better.

Introductory study of elementary tensor algebra and calculus, differential and integral calculus in higher dimensions, differential forms, and calculus on manifolds. May be taken for grades or on a credit-no-credit basis. Five hours. **Transfer Credit: CSU; UC.**

## MEDICAL ASSISTING

### Medical Assisting 115—Medical Bookkeeping (4)

Terminology, techniques, application, hands-on training of accounts receivable and accounts payable systems, and payroll as it pertains to the medical office. Course includes computerized procedures. Same as Accounting 115. Students completing Medical Assisting 115 may not receive credit for Accounting 115. Four hours. **Transfer Credit: CSU.**

**Medical Assisting 135—Clinical Lab Procedures (2)**

**Prerequisite:** Allied Health 115.

Basic microbiology and methods of collecting and conducting routine tests on blood and urine as performed in a medical office. The use and care of clinical laboratory equipment. Other laboratory tests will be discussed. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Medical Assisting 175—Introduction to Medical Assisting and Transcription (3)**

**Prerequisite:** Allied Health 111 or concurrent enrollment.

The role of medical assisting and transcription in health care delivery, medical ethics/law, communication, records management and the study of structures and functions of the body. Three hours. **Transfer Credit: CSU.**

**Medical Assisting 180—Administrative Assisting Medical Procedures (2)**

**Prerequisite:** Medical Assisting 175 and keyboarding skill of 40 wpm.

Prepares student to function as an administrative medical assistant to the physician in an office group practice, medical clinic, hospital or allied health facility. Two hours. **Transfer Credit: CSU.**

**Medical Assisting 185—Medical Insurance Billing (3)**

**Prerequisite:** Allied Health 111 or concurrent enrollment.

Manual and computer assisted medical insurance claims processing including utilization of ICD and CPT codes. Special emphasis on out-patient claims. Three hours. **Transfer Credit: CSU.**

**Medical Assisting 186—Administrative Experience (2) (8 week course)**

**Prerequisite:** Medical Assisting 115, 180 and 185.

Administrative medical assisting experience in a medical office, clinic, hospital or allied health facility. Discussion of experiences and problems encountered. One hour lecture, sixteen hours non-lecture. **Transfer Credit: CSU.**

**Medical Assisting 281—Clinical Experience (2) (8 week course)**

**Prerequisite:** Medical Assisting 135, 286, 287, 288 and 289.

Provides supervised clinical experience in a medical office or clinic, hospital or allied health facility. Class sessions include discussion of experiences and problems encountered by the student in the administrative and clinical situation. One hour lecture, sixteen hours clinical. **Transfer Credit: CSU.**

**Medical Assisting 286—Medications and Injections (1) (8 week course)**

**Prerequisite:** Allied Health 115 and Medical Assisting 175.

Methods of handling medications and instruction in techniques of intramuscular, subcutaneous and intradermal injections. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Medical Assisting 287—General Physical and Specialty Exams (1.5) (8 week course)**

**Prerequisite:** Allied Health 115 and Medical Assisting 175.

Theory and techniques in preparation of patients for general physical examinations, pediatric exams, obstetrical exams, gynecological exams, EENT exams, urological exams, and proctological exams. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Medical Assisting 288—Sterile Techniques and Minor Surgery (1) (8 week course)**

**Prerequisite:** Allied Health 115 and Medical Assisting 175.

Sterilization techniques and methods of assisting a physician with common medical office minor surgery. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Medical Assisting 289—Medical Assisting Specialty Procedures (1) (8 week course)**

**Prerequisite:** Allied Health 111 and 115 or concurrent enrollment in both.

Basic concepts of preparing patients for special diagnostic tests and techniques in the medical office including pulmonary function, electrocardiography and physical therapy. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**MEDICAL TRANSCRIPTION**

**Medical Transcription 190—Beginning Medical Transcription (3)**

**Prerequisite:** Medical Assisting 175 and Allied Health 111, or concurrent enrollment.

**Recommended preparation:** Proficiency in word processing and keyboarding speed of 40 wpm.

Instruction and experience in beginning medical transcribing procedures. Special emphasis on medical terminology and techniques of preparing discharge summaries, operative reports, histories and physicals and consults. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**Medical Transcription 195—Advanced Medical Transcription (2)**

**Prerequisite:** Medical Transcription 190.

Instruction and experience in advanced medical transcription procedures. Special emphasis on transcription of history and physicals, consultations, operative reports, progress notes, discharge summaries, and various reports relating to laboratory/special procedures. One hour seminar, three hours laboratory. **Transfer Credit: CSU.**

**METEOROLOGY**

(See Aviation Pilot Training 133)

**MUSIC**

**Music 100—History and Appreciation of Music (3)**

A survey of music, the universal language and social cohesion in Western Civilization. Antiquity through the Contemporary periods with emphasis on the paradigm shift in music as it reflects the cultural reaction to the human condition. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Music 101AB—Rhythm Study 1 (2)**

**Prerequisite:** Minimal musical experience.

Reading rhythm. Open to all levels of instrumental and vocal performers. Instruments will be used in learning a wide variety of patterns including jazz and rock. Various note values and their subdivisions will be used. Two hours. **Transfer Credit: CSU; UC.**

**Music 102AD—Computers in Music (3)**

Designed to introduce the layman or computer professional to the rapidly evolving use of computers and related digital technology in music. Emphasis will be given to professional music software, dedicated music systems, MIDI (Musical Instrument Digital Interface), and digital audio. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

**Music 104AB—Ear Training (3)**

A study of scales and musical interval recognition. Students will learn to identify, sing and notate musical intervals including access to computer assisted learning. Basic piano skills or concurrent enrollment in Music 141 recommended. May be taken for grades or on a credit-no credit basis. Four hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

**Music 105—Music from Bach Up to Rock (3)**

History and appreciation of Western music from the birth of opera to modern times. Listen to and discuss the development of classical masterworks including Handel's Messiah, Beethoven's symphonies, the operas of Mozart, Verdi, and Wagner, and Tchaikovsky's Nutcracker. Overview of modern music from Stravinsky and Schoenberg to the diverse multicultural origins of jazz and rock. Distinguish between various musical styles and develop aural skills that enhance personal listening enjoyment. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Music 109—History of Rock Music (3)**

The study of social and musical influences on rock music and the influence of rock music on society and the music industry. 1950's through modern rock. CD's, videos, DVD's, computer-generated multimedia presentations, and live performances. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Music 115—Fundamentals of Music (3)

For those with no previous musical theory background. Fundamentals of music including key signatures, intervals, chords, 7th chords, and functional harmony. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

## Music 116—Basic Guitar (2)

Fundamentals of guitar, music, and musicianship using classical, folk, and popular guitar literature at the beginning level. Emphasis on music notation, terminology, scales, key signatures, time signatures, basic guitar chords, rhythms, and fingering techniques. Students provide their own acoustic nylon or steel-string guitar. May be taken for grades or on a credit-no credit basis. One and one-half hours lecture, one and one-half hours studio. **Transfer Credit: CSU; UC.**

## Music 120AD—College Choir (1)

Open to all students interested in singing in a college choir. In addition to public performances of standard choral literature, this course includes basic vocal techniques, basic music theory, improvement of sight reading, musicianship skills, music fundamentals, and music history and appreciation as it relates to choral literature. Prerequisite training is not necessary. Three hours. **Transfer Credit: CSU; UC.**

## Music 122AD—Chamber Singers (2)

**Prerequisite:** Successful audition; this prerequisite will be validated in class during the first week of the course.

A select vocal ensemble which performs suitable music from all historical periods. Extensive participation in concerts on and off campus. Occasional brief section rehearsals. Schedule of performances announced at the beginning of each semester. One and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

## Music 127AD—Swing Band (1)

**Prerequisite:** Eligibility based on successful audition.

Study and performance of swing era music. Special emphasis on swing music for dancing and concerts. Performances are scheduled in local hotel ballrooms and lounges. Three hours non-lecture, one hour arranged. **Transfer Credit: CSU; UC.**

## Music 129AD—Guitar Ensemble (.5-1) (8-16 week course)

**Prerequisite:** Eligibility based on successful audition.

Designed for performers who read musical notation on guitar. Rehearsal and performance of guitar ensemble literature from Renaissance to present. Styles include Renaissance, Baroque, Classical, Romantic, and modern music. New transcriptions, arrangements, compositions, and concertos for guitar ensemble will be encouraged. Public performance on a concert program with guest artists. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU; UC.**

## Music 132AD—Wind Ensemble (1)

**Prerequisite:** Eligibility based on successful audition.

Open to advanced performers on brass, woodwind and percussion instruments. Rehearsal and performance of music from standard symphonic and wind ensemble literature. Regularly scheduled public concerts. May be taken for grades or on a credit-no credit basis. Three hours non-lecture, one hour arranged. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Music 133AD—Orchestra (1)

**Prerequisite:** Eligibility based on successful audition.

Open to advanced performers of string, brass, woodwind and percussion instruments. Rehearsal and performance of music from the standard symphonic orchestral literature. Regularly scheduled public concerts during the school year. Three hours non-lecture. **Transfer Credit: CSU; UC.**

## Music 140AB—Beginning Instruments (2)

Elementary instruction on a selected band or orchestra instrument. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 141—Piano 1 (2) (CAN MUS 22)

Group instruction for the beginner that develops musicianship and basic piano technique. Recommended for elementary teachers, required of music majors in many transfer schools. One-half to one hour minimum daily practice. Practice pianos available on campus. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 142—Piano 2 (2)

**Prerequisite:** Music 141.

Continuation of Piano 1 toward improvement of playing skills. Major scales for both hands, rhythms through sixteenth notes, harmonizing of folk tunes and pieces by contemporary masters will be studied. One-half to one hour daily practice. Practice pianos available on campus. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 144AB—Popular Vocal Techniques (2)

Popular solo and group singing styles and interpretation. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours studio. **Transfer Credit: CSU.**

## Music 145—Voice 1 (1)

Beginning voice production for singers and speakers toward developing a free, equal, flexible vocal scale, and bel canto (beautiful singing) and performance skills. Class and individual singing opportunities. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 146—Voice 2 (1)

**Prerequisite:** Music 145 or audition.

A continuation of Voice 1. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 148—Classical Guitar 1 (2)

**Prerequisite:** Music 116 or audition.

Continuation of fundamentals relating to the classical guitar, music notation, note and rest values, key and time signatures, dynamics, chromatic scales, music which is applicable to the classical guitar, and basic instruction on correct posture for the left and right hand. Student must furnish own soft string classical guitar and foot stool. Student will receive instruction on classical guitar performance. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 149—Classical Guitar 2 (2)

**Prerequisite:** Music 148 or audition.

Note: Students must provide their own classical guitar and music stand.

Continuation of Classical Guitar 1 with emphasis on advanced classical guitar performance techniques and literature. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 150AB—Intermediate Band/Orchestra (2)

**Prerequisite:** Music 140AB or audition.

Intermediate instruction on a selected band or orchestra instrument. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 151—Studio Guitar 1 (1.5)

**Prerequisite:** Music 116 or audition.

Studio guitar techniques for playing guitar in styles such as jazz, rock and other popular styles. Students must provide their own guitar. May be taken for grades or on a credit-no credit basis. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 152—Studio Guitar 2 (1.5)

**Prerequisite:** Music 151.

Continuation of Studio Guitar 1. Emphasis on picking techniques, note reading in positions, scales, chords, music theory, sight reading, solo and ensemble performance. May be taken for grades or on a credit-no credit basis. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

## Music 155—Music Industry Studies (3)

A survey of musical careers and related professions. Emphasis on creative, business and performance aspects. Includes recording, songwriting, management, copyright and other aspects of the music industry. Guest industry lecturers and field trips. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Music 170—Music in America (3)

A survey of American music and musicians from early colonial days to current times. A historical overview with an emphasis upon contributions to the world of music considered to be uniquely 'American.' Includes study of America's growing period, religious music, folk songs, nationalistic elements and composers, jazz, musical theatre, and contemporary developments. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Music 173—History of Jazz (3)**

The roots of jazz in African and western music. Development of jazz in the United States including evolving styles and important musicians. Influence of pre-1900 popular music: ragtime, blues and Dixieland. Recognition of playing styles. Merging of other musical forms with the jazz idiom. Jazz as an art form. The composer/improviser in jazz today. Taped and live performances including student participation. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Music 180—Harmony and Sightsinging 1 (5) (CAN MUS 2)**

**Recommended preparation:** Ability to locate treble and bass clef pitches on a keyboard and name the notes.

Includes the study of notation, terminology, scales, key signatures, intervals, triads, rhythms and form. Correlation of music theory with aural, keyboard, history/literature and performance applications. For transferring music major. Five hours. **Transfer Credit: CSU; UC.**

**Music 185—Harmony and Sightsinging 2 (5) (CAN MUS 4)**

**Prerequisite:** Completion of Music 180. Concurrent enrollment in a selected music performing group (choose from Music 120AD, 129AD, 133AD). Evidence by student of development of a music performing medium.

Continuation of Harmony and Sightsinging 1. Includes the study of inversions of triads and sevenths, non-harmonic tones, chord connections to secondary chords and use of dominant ninths. A development of performing skills in aural dictation, sight singing, keyboard and rhythm performance. Correlation of harmony and solfege with history/literature, performance and listening applications for the transferring music major and minor. Five hours. **Transfer Credit: CSU; UC.**

**Music 230AD—Jazz Improvisation (1)**

**Prerequisite:** Eligibility based on successful audition.

Development of the individual musician's technical tools and performing skills in jazz music improvisation. Includes usage of appropriate idiomatic forms, harmonies, scales, stylistic articulations. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours studio. **Transfer Credit: CSU; UC.**

**Music 233AD—Symphonic Chamber Orchestra (1)**

**Prerequisite:** Eligibility based on successful audition.

Open to advanced performers of string, brass, woodwind and percussion instruments. Rehearsal and performance of music from the standard symphonic and chamber orchestra literature. Regularly scheduled public concerts during the school year. May be taken for grades or on a credit-no credit basis. Three hours non-lecture, one hour arranged. **Transfer Credit: CSU; UC.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Music 234AD—Jazz Workshop (1)**

**Prerequisite:** Eligibility based on successful audition.

A group of advanced instrumentalists that will discuss, write, rehearse and perform jazz music. Emphasis on a laboratory environment that will stress articulation, phrasing, improvisation and style for the professional performer. Students will have the opportunity to write, rehearse and conduct their own jazz oriented compositions. Guest jazz artists will meet and work with the group periodically. Public performances will be scheduled during the semester. May be taken for grades or on a credit-no credit basis. Three hours studio. **Transfer Credit: CSU; UC.**

**Music 236AB—Introduction to Sound Reinforcement (3)**

Designed to introduce the student to business and skills of concert sound reinforcement. State-of-the-art electronic equipment is used with hands-on experience for the student. There will be an opportunity for the student to engineer rehearsals and a concert performance. May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

**Music 237AB—Concert Sound Engineering (3)**

**Prerequisite:** Music 236AB.

A continuation of Music 236AB. Advanced concepts and usage of state-of-the-art electronic sound equipment. Hands-on experience with concert sound equipment and real-life concert situations. Mandatory off-campus concerts where students must set up, mix, and tear down. May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

**Music 241—Piano 3 (2)**

**Prerequisite:** Music 142.

Early intermediate classical piano literature. Emphasis on development of technical proficiency and stylistically appropriate interpretation. One and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU; UC.**

**Music 242—Piano 4 (2)**

**Prerequisite:** Music 241.

Intermediate/advanced classical piano literature in master class performance. Emphasis on artistic development of student performers. One and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU; UC.**

**Music 244AB—Voice 3-4 (1)**

**Prerequisite:** Music 146.

Emphasizes the continual development of individual vocal skills. Frequent class performance opportunities. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

**Music 247AB—Advanced Pop Vocal Techniques (2)**

**Prerequisite:** Music 144AB.

A class for the serious student/performer of popular vocal music. Stylistic development, showmanship, stage presence and image. Solo and background studio techniques in student projects. Guest artists/lecturers. Requires outside preparation. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Music 248—Classical Guitar 3 (2)**

**Prerequisite:** Music 149 or audition.

Designed for the serious music student who seeks more extensive awareness in technical facility, musical literature, musicianship and self discipline. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

**Music 249—Classical Guitar 4 (2)**

**Prerequisite:** Music 248 or audition.

Designed for the serious music student who seeks more extensive awareness in technical facility, musical literature, musicianship and self discipline. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

**Music 261AB—Recording Techniques Workshop (2)**

An introductory workshop for musicians and sound engineers who will devise and develop recorded performances in a studio environment. Emphasis on analyzing studio acoustics, vocal and instrumental recording techniques, mixing board characteristics, and the total recording studio process. Particular emphasis on studio techniques and demeanor, and creating a finished and marketable product. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours studio. **Transfer Credit: CSU.**

**Music 262—Music as a Business (2)**

For students planning a career in the music industry including contracts, negotiations, taxes, agents, producers, club owners, contractors and managers. Guest lecturers from the industry. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

**Music 265AD—Advanced Recording Techniques (2)**

**Prerequisite:** Music 261AB.

An advanced workshop for students and performers. Pre- and post-production planning to create a marketable product. Requires basic knowledge of studio acoustics, vocal and instrumental mic techniques, control board and off-board effects units and general studio activity. Students will develop their own recorded material including support musicians and production staff. May be taken for grades or on a credit-no credit basis. One hour lecture, five hours studio. **Transfer Credit: CSU.**

**Music 271—Studio Guitar 3 (1.5)**

**Prerequisite:** Music 152.

Continuation of Studio Guitar 1 and 2. Emphasis on linear note reading across the guitar fretboard, chord substitutions, altered chords, chordal progressions, turn arounds, music theory, chordal analysis, sight reading, ensemble and solo performance, arranging for solo guitar. May be taken for grades or on a credit-no credit basis. Three hours lecture-studio. **Transfer Credit: CSU; UC.**

**Music 272—Studio Guitar 4 (1.5)**

**Prerequisite:** Music 271.

**Corequisite:** Music 129AD.

Continuation of Studio Guitar 1, 2 and 3. Emphasis on intermediate and advanced picking techniques, analysis of styles, history and appreciation, improvisation, arranging and performance of chordal solos for the guitar. May be taken for grades or on a credit-no credit basis. Three hours lecture-studio. **Transfer Credit: CSU; UC.**

**Music 280—Harmony and Sightsinging 3 (5)**

**Prerequisite:** Completion of Music 185. Concurrent enrollment in a selected music performing group (choose from Music 120AD, 129AD, 132AD, 133AD, 233AD). Evidence by student of development of a music performing medium.

Study of advanced harmonic, rhythmic and melodic materials. This includes church modes, ninth-eleventh-thirteenth chords, neapolitan sixths, augmented sixths, modulation to remote keys. Correlation of theory with creative, keyboard, history, literature and performing applications. For the transferring music major. Five hours. **Transfer Credit: CSU; UC.**

**Music 285—Harmony and Sightsinging 4 (5)**

**Prerequisite:** Completion of Music 280. Concurrent enrollment in a selected music performance group (choose from Music 120AD, 129AD, 233AD). Evidence by student of development of a music performing medium.

Continuation of Harmony and Sightsinging 3. Includes the study of augmented sixth chords, diminished seventh chords, modulation of remote keys, embellishment chords. A development of performing skills in aural dictation, sight singing, keyboard and rhythm performance. Correlation of harmony and solfege with history/literature, performance and listening applications for the transferring music major and music minor. Five hours. **Transfer Credit: CSU; UC.**

**Music 287AB—Jazz/Rock Theory (3)**

**Prerequisite:** Music 185.

For students with a goal of writing or playing as studio musicians. Includes the practical use of traditional theory and the harmonic, melodic, and rhythmic devices used by performing groups in today's market. Strong emphasis on ear training and acquiring advanced songwriting skills. Four hours. **Transfer Credit: CSU; UC.**

**Music 290AD—Applied Music (2 or 4)**

**Prerequisite:** Demonstrated ability in the area of study; concurrent enrollment in a music performing group.

Students will arrange for and take private lessons in applied music, composition, theory, orchestration, arranging or computer music. Student performances. One hour lecture, five or ten hours non-lecture. **Transfer Credit: CSU; UC.**

**NATURAL SCIENCE**

**Natural Science 100—Evolution of the Cosmos (6)**

An overview of the full breadth of natural history encompassing the origin and evolution of the universe, the solar system, the earth with its atmosphere, oceans and geologic features, and earth life from primordial through prehistoric to contemporary, including humans. The philosophy and development of science and technology will also be discussed along with their impact on society and our future options regarding energy, the preservation of the environment and space exploration. May be taken for grades or on a credit-no credit basis. Six hours. **Transfer Credit: CSU; UC.**

**Natural Science 100LA—Natural Science Laboratory—Astronomy (1)**

**Prerequisite:** Natural Science 100 or 110 or concurrent enrollment.

**Recommended preparation:** Math 010.

A beginning laboratory experience for natural science students with emphasis on outdoor astronomical observations and indoor analysis of experimental astronomical data. Same as Astronomy 100L. Students completing Natural Science 100LA may not receive credit for Astronomy 100L. May be taken for grades or on a credit-no credit basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Natural Science 100LG—Natural Science Laboratory—Geology (1)**

**Prerequisite:** Natural Science 100 or concurrent enrollment.

Beginning laboratory experience for natural science students with emphasis on geology. May be taken for grades or on a credit-no credit basis. Three hours laboratory. Same as Geology 100L. **Transfer Credit: CSU; UC.**

**Natural Science 110—Cosmos—A Personal Voyage (3)**

The goal is to achieve a 'cosmic perspective' . . . an understanding of the kinship between the human race and the universe. Important discoveries by the earth, life and space sciences will be highlighted along with examples of the history and philosophy behind science and its love-hate relationship with society. The main viewpoint will be Carl Sagan's, whose 'Cosmos' book and television series (viewed during class), will be the core of the course with extensive class discussion of other views. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Natural Science 112—Introduction to Physical Science (4)**

An introduction to the basic physical principles that govern the universe. This course will present an overview of the following physics topics: mechanics, heat, sound, properties of matter, electricity, magnetism, light, atomic processes, nuclear processes, and special and general relativity. Included are examples that represent astronomical phenomena from the solar system, the stars, and cosmology. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**NEURODIAGNOSTIC TECHNOLOGY**

**Neurodiagnostic Technology 110—Basic Electroencephalography (4)**

**Prerequisite:** Allied Health 010 and Technology 040.

Fundamentals of EEG, including application of electrodes using the International 10/20 system, basic EEG wave forms, artifacts, and introduction to the EEG machine. Opportunity is given to perform EEG tests and to observe EEG labs in health care facilities. All enrollees must be accepted into either the Neurodiagnostic or Polysomnography program. Three hours lecture, six hours laboratory. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 115—Advanced Electroencephalography (4)**

**Prerequisite:** Neurodiagnostic Technology 110.

Introduction to the abnormal electroencephalogram, maturational changes, and the basic principles upon which successful electroencephalographic techniques are based. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 116—Clinical Experience 1 (3.5)**

**Prerequisite:** Neurodiagnostic Technology 110 and Allied Health 115.

Beginning clinical practice of electroencephalographic testing on patients at various affiliated neurodiagnostic labs. This will include observation, application of electrodes, performance of EEG testing on clinical patients, medical recordkeeping, and clinical history reporting. Students must purchase a uniform for this course. Offered on a credit/no credit basis only. One hour lecture, sixteen hours clinical. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 117—Clinical Experience 2 (3) (8 week course)**

**Prerequisite:** Neurodiagnostic Technology 115 and 116.

Continued clinical experience in electroencephalography at a selected neurodiagnostic lab in an affiliated health care facility under the direct supervision of a physician and/or EEG technologist. This clinical will build on skills attained in NDT 116 and will include performance of EEG testing on clinical patients, medical recordkeeping, and clinical history taking. Offered on a credit/no credit basis only. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 190—Introduction to Neuro Anatomy and Physiology (3)**

**Prerequisite:** Biology 221.

An introduction to the anatomy of the central and peripheral nervous system and its function with correlation to the related pathologies and symptomatology of these areas as needed by a neurodiagnostic and/or polysomnographic technologist. Provider approved by the California Board of Registered Nursing, Provider #CEP 12655 for 54 hours. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 191—EEG Record Review—Normal (1) (8 week course)**

**Corequisite:** Neurodiagnostic Technology 115.

Practice in electroencephalograph (EEG) record review of normal adult and pediatric patients. Interpretation and description of EEG test. Two and a quarter hours. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 200AC—  
Neurodiagnostic Lab Practice (.5) (4 week course)**

**Prerequisite:** Neurodiagnostic Technology 110.  
Application of basic technical skills to successfully record routine EEG, PSG, and EP procedures according to published ACNS guidelines. Six hours laboratory. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 280—Neurologic Disorders (3)**

**Prerequisite:** Neurodiagnostic Technology 115 and 190.  
Clinical and electroneurodiagnostic correlations to various physical conditions and disease state which are commonly dealt with in neurodiagnostic technology. Relationship of technician to various medical specialties: neurology, neurosurgery, pathology, radiology, internal medicine, and psychiatry. Three hours. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 284—  
Introduction to Transcranial Doppler (1) (8 week course)**

**Prerequisite:** Biology 221.  
An introduction to Transcranial Doppler (TCD) procedures and recording techniques. Two hours. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 285—  
Introduction to Nerve Conduction Velocity (1) (8 week course)**

**Prerequisite:** Neurodiagnostic Technology 117.  
An introduction to nerve conduction velocity (NCV) testing procedures and recording techniques. Two hours. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 286—Clinical Experience 3 (3.5)**

**Prerequisite:** Neurodiagnostic Technology 117.  
Continued clinical experience in electroencephalography at a selected neurodiagnostic lab in an affiliated health care facility under the direct supervision of an EEG technologist or physician. This clinical will build on skills attained in NDT 117 and will include performance of EEG testing on clinical patients, medical recordkeeping, and clinical history taking. There will also be opportunities to observe and possibly perform evoked potential studies. Offered on a credit/no credit basis only. Sixteen hours clinical. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 287—EEG Record Review—Abnormal (1.5) (12 week course)**

**Prerequisite:** Neurodiagnostic Technology 117.  
**Corequisite:** Neurodiagnostic Technology 280.  
Practice in electroencephalograph (EEG) record review of neurological subjects covered in Neurodiagnostic Technology 280. Classification of EEG activities with correlation to clinical disorders. Two hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Neurodiagnostic Technology 288—Basic Evoked Potentials (3)**

**Prerequisite:** Neurodiagnostic Technology 110 and 190.  
Concepts, terminology, and techniques of evoked potentials (EP) recording with testing modalities of visual, auditory, and somatosensory systems to be discussed individually. An overview of computers and EP instrumentation will be discussed, as well as the application of EP testing in neonates, the operating room, and the computation and collection of normative data. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 289—Clinical Experience 4 (2) (12 week course)**

**Prerequisite:** Neurodiagnostic Technology 286 and 288.  
Clinical practice in neurodiagnostic testing with an emphasis to include evoked potential testing in the auditory, visual, and somatosensory modalities. May include observation and performance of other more specialized neurodiagnostic testing such a surgical monitoring, quantitative analysis of EEG and evoked potentials, transcranial doppler, ambulatory or telemetry monitoring, and others. This clinical also further develops advanced skills in electroencephalographic recording and analysis. Offered on a credit/no credit basis only. Sixteen hours clinical. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 296—Advanced Evoked Potentials (2) (14 week course)**

**Prerequisite:** Neurodiagnostic Technology 288.  
This course will analyze the clinical correlations of evoked potential testing. Modalities of auditory, visual, and somatosensory testing will be analyzed separately. The course will focus on waveform analysis correlating to common neurological diseases. Additional recording strategies and analysis of evoked potentials in intraoperative monitoring, neonatal recordings, and advanced applications will be discussed. Intraoperative monitoring recording scenarios will be demonstrated and practiced in the classroom laboratory. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 297—Microcomputer Applications in Neurodiagnostics (2) (14 week course)**

**Prerequisite:** Computer Information Systems 100 and Neurodiagnostic Technology 115.  
Current application of microcomputers in neurodiagnostic technology. Testing modalities of electroencephalography, evoked potentials, epilepsy monitoring, and automated diagnostic techniques will be presented. Opportunities for hands-on use of digital equipment in the classroom will be integrated. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Neurodiagnostic Technology 298—Clinical Internship (1) (4 week course)**

**Prerequisite:** Neurodiagnostic Technology 289.  
Clinical internship to perform neurodiagnostic testing at affiliated hospital sites. Students will apply for a specialized training area in the field. Emphasizes cumulative application of knowledge and skills in clinical assessment, diagnostic testing, and analysis of test results. Specialized areas may include intraoperative monitoring, neonatal testing, epilepsy monitoring, pediatric testing, research applications, brain mapping, and others. Offered on a credit-no credit basis only. Thirty-two hours clinical. **Transfer Credit: CSU.**

**NUTRITION CARE**

**Nutrition Care 100—Careers in Dietetics and Food Science (1) (8 week course)**

Career opportunities and requirements in the fields of dietetics and food science are explored. Discussion will include current and projected trends which relate to career opportunities. Course covers scope and responsibilities of professional members in various food-related careers. Same as Food and Nutrition 100. Students completing Nutrition Care 100 may not receive credit for Food and Nutrition 100. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Nutrition Care 175—Health Care Field Experience (3)**

**Prerequisite:** Culinary Arts 150 and Food and Nutrition 170  
**Corequisite:** Nutrition Care 180.  
Importance and scope of providing food and nutritional services in health care or community facilities to include clinical experience. Team concept approach and public relations will be emphasized. Students will be required to follow dress standards set by the facility in which they are working. TB clearance required. One and one-half hours lecture, eight hours field experience (lab). **Transfer Credit: CSU.**

**Nutrition Care 180—Introduction to Medical Nutrition Therapy (3)**

**Prerequisite:** Food and Nutrition 170.  
The principles of nutrition as they relate to special and abnormal physical conditions. Includes the effect of proper nutrition upon the human body, the medical or surgical problems which can arise and the dietary modifications necessary as a result. Routine hospital diets are studied and planned. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**Nutrition Care 280—Intermediate Nutrition Care (2)**

**Prerequisite:** Nutrition Care 180.  
Nutrition education principles and techniques for individual, family, and small group instruction in normal and preventive nutrition care. Consideration is given to community and cultural influences on nutrition. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

## Nutrition Care 281—Supervised Practice 1 (3)

**Prerequisite:** Nutrition Care 280.

Supervised practice in community facilities/agencies dealing with the nutritional health of people. Rotation through agencies or experiences in public health, community agencies, and schools. Students will be required to follow dress standards set by the facility in which they will work. Includes dietary evaluation and nutrition counseling. One-half hour lecture, ten hours clinical. **Transfer Credit: CSU.**

## Nutrition Care 285—Advanced Nutrition Care (2)

**Prerequisite:** Nutrition Care 281.

Planning nutrition care through menu writing, liquid nutrition evaluation, and case studies. Application of menu planning principles to people in various stages of the life cycle, of different cultures, and with varying diet modifications. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

## Nutrition Care 286—Supervised Practice 2 (3)

**Prerequisite:** Nutrition Care 285.

Supervised experience in an acute care medical facility. Rotation through the various job responsibilities of the dietetic technician. Students will be required to follow dress standards set by the facility in which they will work. One-half hour lecture, ten hours clinical. **Transfer Credit: CSU.**

## ORNAMENTAL HORTICULTURE

### Ornamental Horticulture 090—Orientation to Horticulture (.5) (6 week course)

Educational opportunities at Orange Coast, further education, careers in horticulture, professional organizations and licensing. Job finding. Offered on a credit-no credit basis only. May be taken for grades or on a credit-no credit basis. Two hours.

### Ornamental Horticulture 100—Horticulture Science (3)

The science and culture of plants upon which man's very existence depends. The principles and practices used to grow plants for food and environmental enhancement will be emphasized. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Ornamental Horticulture 101AB—Current Topics in Horticulture (.5-1) (8-16 week course)

Study of topics of current importance in Ornamental Horticulture. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Ornamental Horticulture 109—Knowing Your Soils (3)

A nontechnical study of the fundamental concepts of soil science. Methods of investigations for the management of soils and soil substitutes. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Ornamental Horticulture 111—Landscape Drafting Technique (1) (8 week course)

Basic landscape drafting practices, lettering, line work, symbols, sheet composition and dimensioning. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

### Ornamental Horticulture 150—Landscape Maintenance (3)

Maintenance of residential and small commercial landscapes to include: small tree and shrub trimming, all aspects of lawn care, soil amending, fertilizing, sprinkler adjustments, watering, pest inspections, and scheduling. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Ornamental Horticulture 170—Pest Control Applicators and Gardeners P.C.O. Certification (1) (8 week course)

Preparation for California Certification Exam as Pesticide Applicator and Gardeners Maintenance Pest Control Operators. Emphasis on safe use of pesticides, alternative pest management. Ornamental, turf grass, industrial, right-of-way and seed treatment control. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

### Ornamental Horticulture 181—Ornamental Trees (3)

Identification, habits of growth, culture, propagation and use in landscape design for Southern California. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

### Ornamental Horticulture 182—Ornamental Shrubs (3)

Habits of growth, culture, propagation and use in landscape design for Southern California. Identification will be emphasized. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

### Ornamental Horticulture 183—Plant Propagation (3)

Principles and practice of propagation of horticultural plants. Propagation from seed, cuttings, layering, budding, grafting. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

### Ornamental Horticulture 184—Nursery Practices and Management (3)

A survey of the nursery industry. Nursery structures and equipment, construction, operation and use in the production of commercial nursery crops. Cultural aspects of crop production. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Ornamental Horticulture 185—Plant Diseases (1.5) (8 week course)

Common diseases of plants, emphasis on ornamentals grown in Southern California. Their symptoms and control of salinity, air pollutants, fungi, bacteria, virus, nematodes and other causal agents of plant diseases. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

### Ornamental Horticulture 186—Pests of Ornamentals (1.5) (8 week course)

Common mite, insect and other animal pests and common weeds of Southern California. Their economic importance, control, and their recognition and typical damage to ornamental plants and to agriculture will be emphasized with a section on structural pests and insects of medical importance. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Ornamental Horticulture 187—Interior Plantscaping (2)

Identification, selection, installation, care and maintenance of plants for interior situations. May be taken for grades or on a credit-no credit basis. Two hours. **Transfer Credit: CSU.**

### Ornamental Horticulture 188—Turf Culture and Management (3)

Maintenance and management of turf including such areas as golf courses, parks, playing fields and home lawns. Identification of turf grasses. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Ornamental Horticulture 189—Weeds and Their Control (1.5) (8 week course)

Recognition and control of weeds in the landscape and in nurseries with emphasis on practical application. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Ornamental Horticulture 190—Xeriscape (2) (8 week course)

A course dealing with ways of reducing water application to existing landscapes and planning new landscapes with low water use as a major concern. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Ornamental Horticulture 285—Introduction to Landscape Design (3)**

**Prerequisite:** Ornamental Horticulture 111, or concurrent enrollment.

Landscape design, circulation, form, materials, scale. Preparation of landscape design plans. May be taken for grades or on a credit-no credit basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

**Ornamental Horticulture 286—Landscape Design Elements (2) (8 week course)**

Design of basic garden elements (i.e. walls, arbors, pools, steps, fences). Reviews construction materials and their inherent qualities. Preparation of construction drawings. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Ornamental Horticulture 287—Planting Design (2) (8 week course)**

**Prerequisite:** Ornamental Horticulture 181, 182, or concurrent enrollment.

Design and preparation of landscape planting plans. Emphasis on ecological and aesthetic considerations. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Ornamental Horticulture 288—Sprinkler Irrigation Systems Design (2) (8 week course)**

How to design irrigation sprinkler systems for small areas such as residential properties and small industrial sites. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

**Ornamental Horticulture 289—Installation of Residential Irrigation Systems (1) (8 week course)**

A hands-on experience with the installation of a residential irrigation system to include: materials lists, layout, trenching, gluing and fitting lines, sprinklers and nozzles, valve manifolds, and clocks. Emphasis on planning, layout, and time saving practical methods. To include one Saturday installation. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

**PHILOSOPHY**

**Philosophy 100—Introduction to Philosophy (3) (CAN PHIL 2)**

A survey of the fundamental problems of philosophy: ethics and aesthetics, logic, philosophy of religion, metaphysics, persons and personal identity, freedom and/or determinism, theory of knowledge, society, and political issues. Basic questions asked about the universe and our place in it. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 110—World Religion (3)**

An identification of the nature of religious thinking and belief. The variety of patterns developed in both the West and the East are explored with a special emphasis on the relevance to the contemporary intellectual world. May be taken for grades or on a credit-no credit basis. Same as Religious Studies 110. Students completing Philosophy 110 may not receive credit for Religious Studies 110. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 115—Philosophy of Religion (3)**

An examination of key issues and problems of religion, including the nature and significance of religion and religious experience, arguments for and against the existence of God, the nature of God, the problem of evil, and the relation between science and religion. May be taken for grades or on a credit-no credit basis. Same as Religious Studies 115. Students completing Philosophy 115 may not receive credit for Religious Studies 115. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 118—Aesthetics/Philosophy of Art (3)**

A philosophical approach to a critical evaluation of works of art (literary, musical, visual). May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 120—Ethics (3) (CAN PHIL 4)**

An introduction to ethical theories and problems. An analysis of the theories and principles on which moral judgments are based and the way these judgments are used in moral problems such as abortion, euthanasia, capital punishment, sexual equality, discrimination, censorship and economic justice. Special attention will be given to the kinds of arguments used in ethical discussion. May be taken for grades or on a credit-no credit basis. Same as Religious Studies 120. Students completing Philosophy 120 may not receive credit for Religious Studies 120. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 125—History of Ancient Philosophy (3) (CAN PHIL 8)**

This introductory course surveys ancient philosophy. It explains the philosophical positions of the ancients, their religious attitudes, and the cultural milieu out of which ancient philosophical thought arose. This course is recommended for philosophy majors, historians, and those interested in the roots of modern civilization. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 150—Logic and Critical Thinking (3)**

**Prerequisite:** English 100 with grade of 'C' or better.

An introduction to the critical analysis and rational evaluation of argument and other forms of expression. Course content covers the uses of language, distinctions between deductive and inductive reasoning, and practice in detecting formal and informal fallacies. The student will develop tools for distinguishing between and evaluating beliefs, opinions, claims, explanations and arguments. A strong emphasis is instruction in writing which models the critical thinking knowledge and skills examined in the course. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 165—The Theory of Knowledge (3)**

A critical survey of theories of truth, knowledge and belief, perception, and related problems. An evaluation of the limits and extent of human reasoning. The survey includes the mathematic-deductive method, the problem of induction, and an assessment of the conditions of the possibility of experience. The course assesses how evidence is assembled, interpreted, evaluated, and addresses what counts as a good reason to believe, i.e., the problems of justifying evidence. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 185—Contemporary Philosophy (3)**

Methods and problems of contemporary philosophy. Continental European and Anglo-American philosophy since 1900: problems of the self, freedom, time, choice and action, language, thought and interpretation, science, evidence, and justification. Three hours. **Transfer Credit: CSU; UC.**

**Philosophy 220—Introduction to Symbolic Logic (3) (CAN PHIL 6)**

Translate simple, quantified and multiple quantified English sentences to symbolic form. Determine the validity of arguments containing simple sentences and sentences involving single quantification. Prove arguments composed of simple sentences, sentences involving single and multiple quantification. May be taken for grades or on a credit-no credit basis. Same as Mathematics 220. Students completing Mathematics 220 may not receive credit for Philosophy 220. Three hours. **Transfer Credit: CSU; UC.**

**PHOTOGRAPHY**

**Photography 101—Photography and Society (3)**

A lecture and discussion class which considers the total photographic visual environment of contemporary life. Magazines, news, art, advertising, snapshots, family albums, political posters, billboards, postcards, fashion, etc. These types of photography will be analyzed to understand their function in contemporary society and to determine how society, in turn, determines our visual environment. Fulfills '100' elective course requirement for photography majors. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Photography 120—Basic Photography (3) (CAN ART 18)**

Discussion and demonstration of basic black/white 35mm photography. Instruction in the theory and technique of camera use, processing film to negatives, and making contact prints and enlargements. Discussion of aesthetics and history of photography, including an international and intercultural perspective. Emphasis on photography as a means of communication and personal expression, and on the critical evaluation of student work in terms of those goals. Required for film/video majors. Also required for photography majors entering the program without prior training in photography. May be taken for grades or on a credit-no credit basis. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU; UC.**

## Photography 121—View Camera (2) (8 week course)

**Prerequisite:** Photography 120.

A basic introduction to view camera techniques. Topics will include: camera movements, film handling, developing and printing methods, and working applications of view cameras. Required in combination with Photography 120, for Photography majors entering the program with a solid instructional background in 35mm photography. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Photography 122AB—Personal Expression (3)

**Prerequisite:** Photography 120.

Creative photography exploring the possibilities of the use of visual language in relation to ideas. Discussion of aesthetics and history of photography, including an international and intercultural perspective. Advanced techniques of camera use and printing will be included, but the emphasis will be placed on the personal expression of ideas. Instruction is offered at beginning and intermediate levels. Fulfills '100' level optional course requirement for photography majors. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## Photography 125—Introduction to Digital Photography (3)

**Prerequisite:** Photography 120.

Designed to introduce the student to the field of digital photographic imaging and image processing with computers. Course will expose student to basic computer retouching methods, as well as simple image manipulation. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Photography 130—History and Aesthetics of Still Photography (3)

This course provides an overview of the history of photography from 1800 to the present. The work of major practitioners is discussed, as well as lesser known figures, and the trends, movements, and artist groups that have shaped the course of the medium. Three hours. **Transfer Credit: CSU; UC.**

## Photography 151AD—Photography, Non-Lab (1.0-2.0) (8 week course)

Photography for producing better pictures with an emphasis on personal expression. Topics cover a wide range including: use of equipment, lighting techniques, digital imaging, travel, scenic, and documentary photography. May be taken for grades or on a credit-no credit basis. 1.0-2.0 hour lecture, 2.0-4.0 laboratory. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Photography 152AD—Photo Gallery (2)

This course aids the student in the appreciation and critical analysis of fine art photography. Presentations and discussions provide a background for the viewing of work on weekly field-trips to most of the major museums and galleries in the Los Angeles area. This course addresses contemporary issues in photography and course content differs each semester since the exhibitions are of different photographers and different periods. Counts towards '100' level optional course requirement for photography majors. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Photography 153—Portraiture (2)

**Prerequisite:** Photography 120.

Covers a wide variety of techniques and approaches to portraiture. Includes making informal, formal, environmental and group portraits, as well as viewing portraits made by other photographers. Fulfills '100' level elective course requirement for photography majors. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

## Photography 160AD—Black and White Photography Laboratory (1-2)

**Prerequisite:** Photography 120.

Assistance with advanced black & white laboratory, studio and camera projects. This is a workshop course intended as, but not limited to, an augmentative laboratory course for those enrolled in certificate studio/production photography classes. Students determine their own projects. Instruction is offered at beginning, intermediate, and advanced levels. Counts toward '100' level elective course requirement for photography majors. May be taken for grades or on a credit-no credit basis. Three to six hours laboratory. **Transfer Credit: CSU.**

## Photography 161AD—Digital Photography Laboratory (1-2)

**Prerequisite:** Photography 125.

A course for students requiring additional digital laboratory experience. Assistance with negative and transparency scanning and printing projects. This is a workshop course intended as, but not limited to, an augmentative laboratory course for those enrolled in advanced digital photography courses. Students determine own projects. Instruction is offered at beginning, intermediate, and advanced levels. Counts toward '100' level elective course requirement for photography majors. May be taken for grades or on a credit-no credit basis. Three to six hours laboratory. **Transfer Credit: CSU.**

## Photography 180—Introduction to Professional Photography (4)

**Prerequisite:** Photography 120.

Instruction in the basic professional techniques of producing black and white photographs, including the use of professional cameras and darkroom procedures, stressing technical excellence in all phases. Required for photography majors entering the program with a solid instructional background in 35mm photography. Three hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## Photography 187—Laboratory Practices (3)

**Prerequisite:** Photography 120.

Study of professional black and white photographic techniques. Emphasis on the following areas: film selection and testing, developer selection and testing, exposure and exposure meters, contrast control (Zone System), paper selection and testing, advanced fine printing techniques, alteration of photographic materials through intensification and reduction, basic sensitometry, practical photochemistry, and health and safety in photography. Required for photography majors. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## Photography 188—Commercial Photography (5)

**Prerequisite:** Photography 120 and 121, or Photography 180.

Overview of the profession of photography. Study and application of the techniques of commercial black and white still photography. Emphasis in the following areas: incandescent, electronic flash and natural lighting; small and large products, copy, portrait and architectural photography; advertising illustration, special effects image techniques and basic business techniques. Required for photography majors. Five hours lecture, three hours laboratory. **Transfer Credit: CSU.**

## Photography 194AC—Photography and Computer Graphics 2 (4)

**Prerequisite:** Photography 125 or Digital Media Arts and Design 193.

Lectures and demonstrations to familiarize students with advanced techniques in digital photography with an emphasis on output. Both fine art and commercial applications are covered. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

## Photography 196AB—Photo Bookworks (3)

**Prerequisite:** Photography 120 or 180.

The use of photographs in artists' bookworks is discussed. Major course projects include the production of several unique photographic books. Layout, typography, editing of photos, and makeup of a book are additional topics covered. May be repeated with different subject matter and presentation style. Instruction is offered at intermediate and advanced levels. Recommended for photography majors. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Photography 200AB—Documentary Photography (3)

**Prerequisite:** Photography 120.

Photographic concepts, aesthetics and history of documentary photography. Strongly recommended for students interested in journalism, material culture, and social/political issues. Students may use black and white, color, or digital photography. Instruction is offered at intermediate and advanced levels. Counts toward '200' level elective course requirement for photography majors. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Photography 205AB—Professional Digital Capture (3)

**Prerequisite:** Photography 125.

Digital photography for the advanced student. Current techniques of professional level image capture using small and large format camera systems. Emphasis on current methodologies, studio lighting techniques, and advanced Adobe Photoshop techniques using Macintosh computers. Counts towards "200" level elective course requirement for photography majors. Strongly recommended for those with an interest in commercial, editorial, or fine art work. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Photography 220AD—Fashion Photography (3)

**Prerequisite:** Photography 120 and 121, or Photography 180.

Editorial and advertising fashion photography as it is practiced professionally. Knowledge of color materials is useful. Instruction is offered at beginning, intermediate, intermediate/advanced and advanced levels. For repeating students this becomes a contemporary issues course with course content and independent portfolio work varying according to evolutions in the field and selected area(s) of specialization. Counts toward '200' level optional course requirement for photography majors. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography 230—Photography Since 1945 (3)

**Prerequisite:** Photography 130.

A critical history of photography since 1945 to the present. Works will be considered from social, political, and art historical perspectives. The course will survey the work of major photographers, exhibitions, and critical writers, as well as the ever-increasing role of photography in contemporary cultural life. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Photography 240AB—Portfolio Evaluation and Development (3)

**Prerequisite:** Photography 188.

Instruction for students wishing to pursue a career in commercial photography on how to develop, present and sell their work. Topics range from image selection, sequencing and presentation to establishing of initial business contacts. May be repeated with different subject matter and presentation style. Instruction offered at intermediate and advanced levels. Strongly recommended for photography majors. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

## Photography 241—Business Practices for Photographers (3)

Presentation of basic business practices in photography including current pricing structures and marketing procedures. Emphasis is on establishing a photographic business, principles of accounting, calculating fixed and variable expenses, general small business practices, possible legal and ethical problems and a review of professional organizations. Helps students to identify and achieve professional photographic goals and objectives. Strongly recommended for Photography majors. Counts toward '200' level elective class requirement. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Photography 260AD—Special Projects (2)

**Prerequisite:** Minimum of ten (10) units of photography at Orange Coast College.

Faculty-directed in-depth study of a limited area of photographic concern. Topic(s) and faculty chosen by the student. Strongly recommended for photography majors. Instruction is offered at beginning, intermediate, intermediate/advanced and advanced levels. Counts toward '200' level optional course requirement. One hour conference with instructor, three hours laboratory. **Transfer Credit: CSU.**

## Photography 261AD—Non-Lab Special Projects (2)

**Prerequisite:** Minimum of ten (10) units of photography at Orange Coast College.

Faculty-directed study into the history, criticism, interpretation or literature of photography, not involving any lab work. Topic(s) and faculty chosen by the student. Recommended for photography majors. Instruction is offered at beginning, intermediate, intermediate/advanced and advanced levels. Counts toward '200' level optional course requirement. One hour conference with chosen instructor, three hours arranged. **Transfer Credit: CSU.**

## Photography 280—Introduction to Professional Color Photography (3)

**Prerequisite:** Photography 180.

An introduction to all aspects of color photography at the professional level. A strong theoretical basis will be introduced, but primary orientation will be toward solving practical problems in color photography. Areas covered will include: color theory, exposure, small and large format transparencies, color negatives, testing of color materials, camera filtration, color correction, and digital methodologies. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## Photography 282—Professional Portraiture (3)

**Prerequisite:** Photography 120 and 121, or Photography 180; Photography 188, 280.

Prepares for employment in professional portrait studio. Includes studio lighting techniques, camera room practices, laboratory techniques and the variety of specialized services offered by a portrait studio. Counts toward '200' level optional course requirement for photography majors. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography 283AB—Art Photography (4)

**Prerequisite:** Photography 130.

A critique based studio class focusing on photography as an art medium, concepts, aesthetics, and history of art photography in relation to contemporary practice. Students may use black and white, color or digital photography. Instruction is offered at intermediate and advanced levels. Required for photography majors. Three hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## Photography 287AB—Alternative Methods (3)

**Prerequisite:** Photography 120.

An intermediate to advanced course covering modern photographic techniques involved with manipulating the photographic medium. Technical and creative experimentation will be emphasized. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## Photography 288—Editorial and Advertising People Photography (3)

**Prerequisite:** Photography 188.

Addresses the topics and skills associated with the commercial photographing of people, usually on location, for the purpose of conveying a message, idea, or concept in advertising, editorial and annual report applications. Topics include location scouting and lighting, interaction with subject (sitter), and issues of style. Counts toward "200" level elective course requirement of photography majors. Strongly recommended for those with an interest in editorial or advertising work. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## Photography 289—Architectural Photography (3)

**Prerequisite:** Photography 280.

Commercial photography intended for advanced students. Projects in black and white and color negatives, and color transparency materials. Some field work with instructor. Counts toward '200' level optional course requirement for photography majors. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography 290—Advertising Illustration Photography (3)

**Prerequisite:** Photography 280.

For advanced photography students and professionals with specific interest in the commercial photography field of advertising illustration. Ability to work with black and white, color negative and color transparency materials required. Counts toward '200' level optional course requirement for photography majors. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

**PHYSICAL EDUCATION**

*(For dance courses see Dance section)*

*It is strongly recommended that students not repeat beginning physical education courses but acquire a variety of experiences through a wide selection of activities.*

**Fitness Activities**

**Physical Education 102AD—Stretch and Flex (.5-1.5) (8-16 week course)**

The course emphasizes proper techniques of movement, joint flexibility, breathing, and body alignment for postural integration. Flexibility as it relates to physical fitness, health, and stress reduction will be explored to improve and maintain a wellness lifestyle. May be taken for grades or on a credit-no credit basis. .25-.75 hours lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 107AD—Fitness Programs (.5-3) (8-16 week course)**

This course allows students to use college facilities and attend day time PE activity classes. As part of the course requirement, students make selections from a series of computer-analyzed fitness and lifestyle evaluations, as well as attend seminars on physical fitness and wellness. This course will explore the relationship of fitness and health related topics to improve, be part of, and maintain a wellness lifestyle. One hour orientations detailing how this program functions are given during the first week of classes. Students are required to attend one orientation. Refer to semester class schedule for lab hours and orientation times. Offered on a credit-no credit basis. .3 to 1.8 hours lecture, 0.7 to 4.2 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 108AD—Strength and Conditioning (.5-3)**

Individual strength and conditioning programs. May be taken for .5-3.0 units depending on the number of hours the student works out each week. Workouts must be done in the Strength Lab during the hours the lab is open. Student must first attend a one-hour session. Orientations will be held during the first two days of the semester. Offered on a credit-no credit basis only. .25-1.5 hours lecture, .75 to 4.5 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 109AD—Sports Conditioning (.5-2.5)**

This course is designed to develop fundamental skills and techniques specifically for athletic competition. Workouts and drills are held on athletic fields and in the fitness facilities. .25-1.5 hours lecture, .75-3.5 hours activity. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

**Physical Education 110AD—Cardiovascular Fitness (.5-2.5)**

Cardiovascular exercise program. Stretching, fast-walk, jogging, and running programs will be set up on an individual basis. Pulse monitoring, nutrition, and strength will also be emphasized. This course will explore the relationship between fitness and health related topics to improve, be part of, and maintain a wellness lifestyle. This course may also be offered online. May be taken for grades or on a credit-no credit basis. One to five hours lecture/activity. **Transfer Credit: CSU; UC.**

**Physical Education 111AD—Weight Training (.5-1.5) (8-16 week course)**

The student will learn the basic principles of weight training and exercises and be able to demonstrate proper biomechanics of weight training exercises. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 112AD—Step Aerobics (.5-1.5) (8-16 week course)**

This is a contemporary workout designed to improve each participant's strength and cardiovascular fitness level through steady-state stepping movements. The student will be exposed to a graduated continuous system of rhythmic stepping at various platform heights, emphasizing strength, flexibility, and endurance which are basic components of physical fitness. May be taken for grades or on a credit-no credit basis. .25-.75 hours lecture, .75-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 114AD—Aerobic Exercise (.5-1.5) (8-16 week course)**

A contemporary workout done to music designed to improve cardiovascular fitness, strength, flexibility, agility, balance, endurance, and coordination through exercise, general movement, and basic elements of dance. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 115AD—Cross Training (.5-1.5) (8-16 week course)**

A multi-dimensional approach to total body fitness. Cross training will encompass aerobics, running and weight training and provide the student the opportunity to develop and maintain a complete conditioning program which balances cardiovascular conditioning, strength, flexibility, and coordination. This course will explore, be part of, and maintain a wellness lifestyle. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 119AD—Athletic Team Training (.5-5) (8-16 week course)**

Course designed for students who are interested in improving their skills for competitive athletic performance. May be taken for grades or on a credit-no credit basis. .5-2.5 hours lecture, 1.5-7.5 hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 124AD—Strength and Balance (.5-2)**

The Second Half is a program designed to enhance the mind and body for the baby boomer generation. This course is designed to improve strength, balance and quality of life for men and women 50 years and older and to create a lifestyle of fitness through safe and enjoyable exercises that can be practiced daily. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

**Physical Education 125AD—Body Sculpting (.5-1.5) (8-16 week course)**

Body sculpting is a contemporary workout designed to improve each participant's muscular tone, strength, endurance, and flexibility. The student will be exposed to a graduated continuous system of sculpting the body through the use of various resistance techniques. May be taken for grades or on a credit-no credit basis. .25-.75 hours lecture, .75-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 127AD—Cardio and Stretch (.5-2)**

The Second Half is a program designed to enhance the mind and body for the baby boomer generation. This course is designed to improve cardiovascular endurance, flexibility and quality of life for men and women 50 years and older and is designed to create a lifestyle of fitness through safe and enjoyable exercises that can be practiced daily. May be taken for grades or on a credit-no credit basis. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

**Physical Education 129AD—Fitness for Performance (.5-2.5) (2-16 week course)**

This course is designed to enhance all components of physical fitness: muscular strength and endurance, cardio-respiratory endurance, flexibility, and reduction of body fat. Develop a variety of fitness regimens to improve performance and reduce the risk of injury. May be taken for grades or on a credit-no credit basis. .25-1.5 hours lecture, .75-3.5 hours non-lecture. **Transfer Credit: CSU; UC.**

**Eastern Movement Forms**

**Physical Education 104AD—Hatha Yoga (.5-1.5) (8-16 week course)**

Designed to teach a variety of beginning and intermediate yoga postures. Breathing, concentration/meditation, and relaxation techniques will be presented with an emphasis on Hatha Yoga as a method of personal development encompassing body, mind, and spirit. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 105AD—T'ai Chi Chih (.5)**

A newly developed system of Qigong discipline based upon ancient principles and consisting of 20 movement patterns designed to generate, circulate and harmonize internal energy flows for health enhancement. May be taken for grades or on a credit-no credit basis. .5 hour lecture, 1.5 hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 120AD—Aikido (.5-1.5) (8-16 week course)**

Aikido is a Japanese art of self-defense which is both non-aggressive and non-competitive. Besides offering students a method of self-defense and all-around physical conditioning, aikido contributes greatly to self-confidence. In addition, it teaches patience, self-discipline, awareness, and respect. This course may be taken four times, allowing students to progress from basic fundamentals to refined techniques. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 121AD—Qigong (Chi Kung) (.5-1.5)**

Ancient energetic discipline promoting health enhancement through cultivation of body, mind, and spirit harmony. May be taken for grades or on a credit-no credit basis. .5-.75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 122AD—Karate (.5-1.5) (8-16 week course)**

This course may be taken four times, giving the martial arts students an opportunity to progress from basic fundamentals to the refined techniques of karate. Skills in self-defense are included. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Performance and Health**

**Physical Education 134—Fitness and Health (3)**

Theory and benefits of physical activity to fitness-related health. The study of human adaptation to exercise including such topics as cardiovascular conditioning, neuromuscular training, body composition, nutrition for performance, stretching, sports injuries and aging. Same as Health Education 134. Students completing Physical Education 134 may not receive credit for Health Education 134. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Physical Education 138—Drugs and Sports (2) (8 week course)**

An in-depth look at substance abuse among athletes. The focus will be on the athletic environment, drug effects, reasons for drug usage, the impact on the team, and position alternatives. Same as Health Education 138. Students completing Physical Education 138 may not receive credit for Health Education 138. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Water Activities**

**Physical Education 143AD—Swimming (.5-1.5) (8-16 week course)**

Course teaches the basics of freestyle, breaststroke, as well as breathing skills while enhancing endurance. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 146AD—Swimming for Fitness (.5-2.5)**

**Prerequisite:** Ability to swim.

Explains the theories and teaches the skills necessary to achieve fitness through swimming. Swimming programs are designed to attain desired levels of cardiovascular efficiency. May be taken for grades or on a credit-no credit basis. 0.3 to 1.5 hours lecture, 0.7 to 3.5 hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 147AB—Introduction to Sailing (1) (8 week course)**

**Prerequisite:** Ability to swim 50 yards and tread water for five minutes.

This course introduces the novice to the fundamentals of sailing through dockside lectures and hands-on experience in Lido 14 dinghies. Points of sail, basic terminology, tacking, gybing, theory, and safety are emphasized. Same as Marine Activities 147AB. Students completing Physical Education 147AB may not receive credit for Marine Activities 147AB. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 148AB—Introduction to Keel Boats (1) (8 week course)**

**Prerequisite:** Ability to swim 50 yards and tread water for five minutes; basic sailing ability.

This course introduces the intermediate sailor to the fundamentals of sailing through dockside lectures and hands-on experience in Shields 30 sloops. Points of sail, basic terminology, tacking, gybing, theory, and safety are emphasized. Same as Marine Activities 148AB. Students completing Physical Education 148AB may not receive credit for Marine Activities 148AB. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 149AB—Introduction to Ocean Sailing (1) (8 week course)**

**Prerequisite:** Ability to swim 50 yards and tread water for five minutes. Knowledge of basic sailing principles.

This course introduces the fundamentals of ocean sailing through dockside lectures and hands-on experience aboard large sailing vessels. Sail handling, which operation, steering, reefing, line handling are emphasized. Same as Marine Activities 149AB. Students completing Physical Education 149AB may not receive credit for Marine Activities 149AB. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 159AD—Outrigger Canoeing (.5-1.5) (8-16 week course)**

**Prerequisite:** Students must be able to swim 100 yards and tread water for five minutes. This prerequisite will be validated in class during the first week of the course.

This course is designed to teach the fundamental outrigger canoeing techniques needed to become a safe and effective paddler. There will be a fee for use of equipment and use of the off-campus facility. Same as Marine Activities 159AD. Students completing Physical Education 159AD may not receive credit for Marine Activities 159AD. .5-.75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 160AD—Kayaking (.5-1.5) (8-16 week course)**

**Prerequisite:** Students must be able to swim 100 yards and tread water for five minutes. This prerequisite will be validated in class during the first week of the course.

This course is designed to teach fundamental kayaking techniques needed to become a safe and effective kayaker. There will be a fee for use of equipment and use of the off-campus facility. Same as Marine Activities 160AD. Students completing Physical Education 160AD may not receive credit for Marine Activities 160AD. May be taken for grades or on a credit-no credit basis. .5-.75 hour lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

**Physical Education 161AD—Surfing (2)**

**Prerequisite:** Students must be able to swim 100 yards non-stop and tread water for five minutes. This prerequisite will be validated in class during the first week of the course.

Designed to teach the fundamentals of board surfing and provide beginning, intermediate, and advanced surfers the opportunity to safely learn and improve the skills to ride waves. Examination and analysis of paddling, wave selection, water safety, equipment, tides, current, and surfing etiquette are emphasized. May be taken for grades or on a credit-no credit basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

## Racquet Activities

### Physical Education 150AD—Badminton (.5-1.0) (8-16 week course)

Develop skills necessary to participate in the game of badminton. Skill development will include instruction on: rules, grip, strokes, etiquette, and basic strategies to compete in singles and doubles. May be taken for grades or on a credit-no credit basis. .5-.75 hour lecture, 1.5-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 154AD—Table Tennis (.5-1) (8-16 week course)

Introduction and practice in the essential stroke skills, rules, etiquette and competition in singles and doubles. May be taken for grades or on a credit-no credit basis. .5 hour lecture, 1.5 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 155AD—Tennis (.5-1.5) (8-16 week course)

Instruction and practice in the essential stroke skills, rules, etiquette and competition in singles and doubles. May be taken for grades or on a credit-no credit basis. .25-.75 hours lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

## Individual and Team Activities

### Physical Education 167AD—Rock Climbing (.5-2) (8-16 week course)

Basic climbing techniques and safety fundamentals prepare the student for participation in rock climbing. Securing the climbing harness properly, properly tying to the harness, proper use of climbing commands, safely falling, and arresting falls will be covered. A fee for use of an off-campus facility will be required. .5-1.0 hours lecture, 1.5-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

### Physical Education 173AD—Basketball (.5-1.5) (8-16 week course)

May be taken for grades or on a credit-no credit basis. .5-.75 hour lecture, 1.5-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 174AD—Bowling (.5-1.5) (8-16 week course)

Development of skills necessary to participate in bowling. League fee is required to cover the use of lanes, bowling shoes and tournament trophies and will be collected by the bowling alley. Beginning: A regulation bowling league designed to provide an opportunity to develop the basic fundamentals and language of bowling, and an introduction to competition. Intermediate: A regulation bowling league designed to provide an opportunity for the more advanced bowler to improve skills and experience more intense competition. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Physical Education 177AD—Soccer (.5-2) (8-16 week course)

This course is designed for men and women with beginning, intermediate, and advanced soccer ability. Students will improve skills through application of rules, theory and study, improve flexibility and endurance, and participate in drills, scrimmages and games. The relationship between fitness and health-related topics to improve, be part of, and maintain a wellness lifestyle will be explored. May be taken for grades or on a credit-no credit basis. .5-1.0 hour lecture, 1.5-3.0 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 178AD—Volleyball (.5-1.5) (8-16 week course)

Development of skills necessary to participate in a game of volleyball at the beginning, intermediate and advanced levels. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 179AD—Golf (.5-1.5) (8-16 week course)

Novice through intermediate levels of instruction in putting, chipping, pitching, sand shots, and full swing fundamentals with emphasis placed on grip and stance. May be taken for grades or on a credit-no credit basis. .5-.75 hour lecture, 1.5-2.25 hours activity. **Transfer Credit: CSU; UC.**

## Adapted Activities

### Physical Education 190AD—Adapted Exercise for Back and Neck Disorders (.5-1.5) (8-16 week course)

This course is designed for ambulatory students with back and/or neck disorders who can benefit from an individualized exercise program. Instruction and practice will be given in stretching, resistive exercises, and relaxation techniques for improvement in strength, flexibility, and tension reduction. Pressure points and use of physioball is also included. Student must be able to stand and transfer to the floor independently. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 activity. **Transfer Credit: CSU; UC.**

### Physical Education 191AD—Adapted Strength Training (.5-1.5) (8-16 week course)

Course is designed for students with physical disabilities requiring an individualized exercise program. Instruction and practice in individualized weight training and resistive exercises will be given for improvement in muscular strength, endurance, flexibility, and postural remediation. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 192AD—Adapted Individual Sports (.5-1.5) (8-16 week course)

This course is designed for physically disabled students. Instruction and practice in the methods, techniques, and rules of bowling. Adapted bowling equipment is available for student use. Class will meet at a local bowling alley. A fee is required to cover use of lanes, shoes, and equipment. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 194AD—Adapted Aquatics (.5-1.5) (8-16 week course)

Designed for students with physical disabilities who can benefit from individualized exercises and swimming in the pool. Instruction and practice in swimming skill development and improvement, exercises in strength and flexibility, and gait training will be offered. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 196AD—Adapted Cardiovascular Fitness (.5-1.5) (8-16 week course)

Course is designed for students with physical disabilities who can benefit from an individualized cardiovascular exercise program. Instruction and practice in cardiovascular activities using a variety of ergometry equipment will be given. May be taken for grades or on a credit-no credit basis. .25-.75 hours lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 197AD—Adapted Aerobic Exercise (.5-1.5) (8-16 week course)

Course is designed for students with physical disabilities who can benefit from a sustained cardiovascular exercise program. A variety of upper and lower body cardiovascular equipment is available in the Adapted Lab, including treadmills, SciFits, arm cranks, recumbent bikes, step and Nordic track machines. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

### Physical Education 198AD—Adapted Stretching (.5-1.5) (8-16 week course)

Course is designed for physically disabled students who can benefit from individualized stretching and muscular endurance activities. Activities are conducted both from a sitting position and lying down on mats. Relaxation techniques, pressure points, passive and resistive stretching, and exercises will be demonstrated and performed. May be taken for grades or on a credit-no credit basis. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

**Intercollegiate Athletics-COED**

**Physical Education 222AD—Pep Squad (2)**

Cheer leaders and song leaders as members of the pep squad. May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU.**

**Physical Education 226AD—Sailing Team (2)**

**Prerequisite:** Ability to swim 50 yards and tread water for five minutes; competitive sailing experience. This prerequisite will be validated in class during the first week of the course.

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU;**

**Intercollegiate Athletics-Women**

**Physical Education 235AD—Basketball Team (1) (8 week course)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 236AD—Cross Country Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 237AD—Badminton Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 238AD—Crew Team (2)**

**Prerequisite:** Crew fundamentals.

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 239AD—Golf Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 240AD—Soccer Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 241AD—Softball Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 242AD—Swimming Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 243AD—Tennis Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Physical Education 244AD—Track and Field Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 245AD—Volleyball Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 246AD—Water Polo Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Intercollegiate Athletics-Men**

**Physical Education 221AD—Golf Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 250AD—Baseball Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 251AD—Basketball Team (1) (8 week course)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 252AD—Crew Team (2)**

Designed to hone skills for intercollegiate crew competition and to make a commitment for athletic excellence. May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 253AD—Cross Country Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 254AD—Football Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 257AD—Soccer Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 258AD—Swimming Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 259AD—Tennis Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 260AD—Track and Field Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 261AD—Volleyball Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Physical Education 263AD—Water Polo Team (2)**

May be taken for grades or on a credit-no credit basis. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Professional Physical Education**

Professional physical education courses are intended for physical education, recreation, and dance majors. Students should consult the Transfer Information section or their counselor for specific requirements.

**Physical Education 199AD—Current Issues in Physical Education (.5-3) (8-16 week course)**

Current issues in the field of physical education, rotating through a variety of topics, such as principles of coaching, mental aspects of sports, principles of fitness and performance, competition and the athlete, and careers in physical education and exercise science. May be taken for grades or on a credit-no credit basis. One to three hours. **Transfer Credit: CSU.**

**Physical Education 268—Introduction to Adapted Physical Education (2.5) (8-16 week course)**

Introduction to adapted physical education designed for majors in fitness specialist, physical education, physical therapy, sports medicine, nursing, and allied health fields. Theory and practice of strength, flexibility, cardiovascular, aquatics, gait and balance development, and assessment for persons with disabilities are topics covered. Instruction in specific disabilities, terminology, psychology, attitudes, and contraindicated and recommended exercises, posture evaluation and remediation, teaching methodologies, and individualizing exercise programs is provided. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

## Physical Education 274—Movement Analysis (3)

Introduction to the musculo-skeletal system and its function in human movement. Analysis of movements in sport skills and the muscles and bones involved. Three hours. **Transfer Credit: CSU; UC.**

## Physical Education 278—Sports Management (3)

Introduction to sports and fitness management programs—operation, procedures, facilities and equipment. Includes how to find a profession in the fitness field. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

## Physical Education 281—Sports Medicine (3)

Technique and theory of care and prevention of athletic injuries. Includes the use of various therapeutic modalities for therapy and prevention of injury through strength and flexibility exercise. Three hours. **Transfer Credit: CSU; UC.**

## Physical Education 284—Fitness and Exercise Testing (3)

Theory and techniques of physical fitness evaluation, exercise testing and exercise prescription. Three hours. **Transfer Credit: CSU.**

## Physical Education 285—Athletic Taping and Modalities (3)

The entry-level theory and technique of athletic strapping and physiological effects and the use of therapy modalities. Instruction in the use of ultrasound, electric stimulation, heat/cold, and whirlpool. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

## Physical Education 287AD—Sports Medicine Practicum (2-4)

Designed to provide clinical experience for students interested in sports-related injury care and prevention. Experiences will include taping for prevention of injury, use of modalities, and exercise programs in rehabilitation of injuries. One hour lecture, three to nine hours non-lecture. **Transfer Credit: CSU.**

## Physical Education 289—Strength and Conditioning Theory (3)

Theory and applications of strength development, muscular endurance, flexibility, neuromuscular coordination, nutrition and supplementation. Includes planning and setting up programs designed to achieve the desired goals in the most efficient way. Also includes introduction to fitness and exercise testing procedures. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

## PHYSICS

### Physics 110—Descriptive Introduction to Physics (3)

**Recommended preparation:** Math 010 and 020.

A brief, but complete, presentation of the fundamental phenomena and laws in physics with experimental illustrations enhancing the development of conceptual scientific thinking. Not open to those who hold credit for any other college physics. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated “UC”. Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Physics 111—Introductory Physics Laboratory (1)

**Prerequisite:** Physics 110 or concurrent enrollment.

Introductory physics laboratory for students to complement Physics 110. Not open to those who hold credit for any other college physics-laboratory course. May be taken for grades or on a credit-no credit basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

### Physics 120—General Physics: Mechanics, Waves, Thermodynamics (4) (CAN PHYS 2)

**Prerequisite:** Math 120 or concurrent enrollment.

Satisfies requirements for biological sciences and technical programs except physics, chemistry and engineering. May be taken for grades or on a credit-no credit basis. Four hours lecture and demonstration, two hours laboratory. **Transfer Credit: CSU; UC.**

### Physics 125—General Physics: Electricity, Magnetism, Light, Modern Physics (4) (CAN PHYS 4)

**Prerequisite:** Physics 120.

Continuation of Physics 120. May be taken for grades or on a credit-no-credit basis. Four hours lecture and demonstration, two hours laboratory. **Transfer Credit: CSU; UC.**

### Physics 130—General Mechanics/Waves/Thermodynamics (4)

**Prerequisite:** Math 180.

**Corequisite:** Math 185.

A study of general principles of mechanics, waves, and thermodynamics. Emphasis will be on Newton's three laws of motion, theory of gravity, conservation laws, laws of thermodynamics, generation and propagation of mechanical waves. Three hours lecture, one hour discussion, three hours laboratory. **Transfer Credit: CSU; UC.**

### Physics 135—General Electromagnetism/Light/Modern Physics (4)

**Prerequisite:** Physics 130 and Math 180 and 185.

A study of general principles of electricity, electromagnetism, optics, theory of relativity, and quantum theory with applications to atoms, nuclei and elementary particles. Three hours lecture, one hour discussion, three hours laboratory. **Transfer Credit: CSU; UC.**

### Physics 185—General Physics: Mechanics, Waves (4) (CAN PHYS 8)

**Prerequisite:** Math 180.

**Corequisite:** Math 185.

**Recommended preparation:** One year of high school physics or a semester of college physics.

The Physics 185, 280, 285 sequence is required for students planning to major in physics, chemistry or engineering. Four hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

### Physics 280—General Physics: Electricity and Magnetism (4) (CAN PHYS 12)

**Prerequisite:** Physics 185 and Math 180 and 185.

Continuation of Physics 185. Three hours lecture, one hour problem session, three hours laboratory. **Transfer Credit: CSU; UC.**

### Physics 285—General Physics: Thermodynamics, Light, Relativity, Quantum Physics (4) (CAN PHYS 14)

**Prerequisite:** Physics 280 or 185 with grade of ‘C’ or better.

Heat, light, modern physics. Three hours lecture, one hour problem session, three hours laboratory. **Transfer Credit: CSU; UC.**

## PHYSIOLOGY

(See *Biology 225*)

## POLITICAL SCIENCE

### Political Science 101—Survey of Current Issues (3)

Survey of current issues and events in American and world politics. Focus will be on issues and problems of political significance, opposing viewpoints in the political realm, analysis and evaluation of arguments, and ideological and political conflict. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Political Science 110—Introduction to International Relations (3)

Introduction to international politics. Study of the relations of nation-states including the functions of power, ideology, diplomacy, international law, and organization, as well as military and economic factors. Consideration of United States, Russian, and Chinese foreign policy and prominent cold war and post-cold war problems as they illustrate concepts of international politics. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Political Science 180—Introduction to Government (U.S.) (3) (CAN GOVT 2)

An introduction to the principles and problems of government with particular emphasis on the American political system at all levels. This course satisfies the state college requirements in the Constitution of the United States, state and local governments. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Political Science 180H—Honors Introduction to Government (U.S.) (3)**

An introduction to the principles and problems of government with particular emphasis on the American political system at all levels. This course satisfies the state college requirements in the Constitution of the United States, state and local governments. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Political Science 185—Introduction to Comparative Government (3)**

A comparative study of constitutional principles, governmental institutions, and political problems of selected governments abroad. Particular attention is given to Great Britain, Soviet Union, France, and Germany. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Political Science 188—Introduction to Political Theory (3)**

Introduction to political theorists and concepts from Plato to the present. Philosophers Plato, Aristotle, Machiavelli, Hobbes, Locke, Madison, Marx, Mill, Nietzsche, Burke, and Rawls will be discussed. Concepts include freedom, democracy, virtue, justice, and feminism. Three hours. **Transfer Credit: CSU; UC.**

**Political Science 190—Introduction to American Legal System (3)**

The American legal system focusing on contemporary problems and controversies. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**POLYSOMNOGRAPHY**

**Polysomnography 100—Polysomnography Basics (1) (8 week course)**

**Prerequisite:** Allied Health 115.

An introduction to the pathological condition of a variety of sleep related disorders, including basic set-up of the polysomnogram, types of disorders, and treatment modalities for advanced respiratory care and neurodiagnostic technology students. Two hours. **Transfer Credit: CSU.**

**Polysomnography 150—Introduction to Polysomnography (3)**

**Corequisite:** Polysomnography 160.

Beginning polysomnography includes a fundamental and detailed study of the various sleep disorders, their symptoms, consequences, treatments, and polysomnographic manifestations. Sleep stage scoring, pattern recognition, and data computation are covered. Instruction in patient examination and history taking for sleep disorders. Three hours. **Transfer Credit: CSU.**

**Polysomnography 155—Cardiac Rhythm Analysis (0.5) (6 week course)**

**Prerequisite:** Respiratory Care 185.

**Corequisite:** Polysomnography 170.

Electrocardiogram analysis for the assessment and care of patients in a sleep lab. Two hours lecture. **Transfer Credit: CSU.**

**Polysomnography 160—Polysomnography Testing (2)**

**Prerequisite:** Neurodiagnostic Technology 110 or concurrent enrollment.

**Corequisite:** Polysomnography 150.

Hands-on experience and instrumentation theory of various polysomnographic recording equipment utilized for recording polysomnographic studies and includes patient hookup, calibration, and simulated testing in the lab. Continuous Positive Airway Pressure and oxygen titration demonstration. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Polysomnography 165—Polysomnography Clinical 1 (.5) (8 week course)**

**Prerequisite:** Allied Health 115.

**Corequisite:** Polysomnography 150 and 160.

Clinical application of polysomnographic testing at an affiliated sleep disorder center to include patient interaction, application of testing equipment, and monitoring sleep behavior. Offered on a credit-no credit basis only. Five hours non-lecture. **Transfer Credit: CSU.**

**Polysomnography 170—Polysomnographic Practice (1)**

**Corequisite:** Polysomnography 150 and 165.

Preparatory course for polysomnography clinical experience. Topics will include medical ethics, clinical emergencies, behavioral and performance objectives, and employability skills. One hour. **Transfer Credit: CSU.**

**Polysomnography 175—Polysomnography Clinical 2 (1) (4 week course)**

**Prerequisite:** Allied Health 115 and Polysomnography 160 and 165.

Clinical application of polysomnographic testing at an affiliated sleep disorder center to include patient interaction, application of testing equipment, and monitoring sleep behavior. Offered on a credit-no credit basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

**Polysomnography 250—Polysomnography Record Review (2.5) (14 week course)**

**Prerequisite:** Polysomnography 150, 160, and 165.

Review of normal and abnormal polysomnographic recordings. Learn to recognize normal and abnormal sleep and breathing patterns and behaviors, artifacts, titration of CPAP, BIPAP, and oxygen. Scoring and calculation of polysomnographic recordings. Three hours. **Transfer Credit: CSU.**

**Polysomnography 260—Advanced Polysomnography (2) (14 week course)**

**Prerequisite:** Polysomnography 160.

Advanced aspects of polysomnographic technology, testing, instrumentation, ancillary testing, basic management skills, and computerized scoring. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Polysomnography 265—Polysomnography Clinical 3 (2) (12 week course)**

**Prerequisite:** Polysomnography 175.

**Corequisite:** Polysomnography 250 and 260.

Continued clinical application of polysomnographic testing at an affiliated sleep disorder center. Includes patient interaction, application of testing equipment, and monitoring sleep behavior. Offered on a credit-no basis only. One hour lecture, 12 hours clinical. **Transfer Credit: CSU.**

**Polysomnography 270—Physician Lecture Series (1) (12 week course)**

**Prerequisite:** Neurodiagnostic Technology 190 or concurrent enrollment.

Physician lectures on current topics in polysomnography and related areas of medicine. Time will be allotted for discussion with physicians about individual clinical problems. One and one-half hours. **Transfer Credit: CSU.**

**Polysomnography 285—Polysomnography Internship (2) (4 week course)**

**Prerequisite:** Polysomnography 265.

Final clinical experience in an affiliated sleep disorders center. Students will work with patients and technologists at night in the laboratory to obtain interpretable polygraphs. Offered on a credit-no credit basis only. Thirty-six hours. **Transfer Credit: CSU.**

**PSYCHOLOGY**

**Psychology 100—Introduction to Psychology (3) (CAN PSY 2)**

This course is an introduction to the scientific study of human mental processes and human behavior. The following topics are explored: history of psychology, research methods in psychology, physiology of the nervous system, sensation and perception, states of consciousness, learning and memory, intelligence, thought, language, human development, motivation, emotion, human sexuality, health and stress, personality theories, abnormal disorders, and therapies. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Psychology 100H—Honors Introduction to Psychology (3)**

This course is an introduction to the scientific study of human mental processes and human behavior. The following topics are explored: history of psychology, research methods in psychology, physiology of the nervous system, sensation and perception, states of consciousness, learning and memory, intelligence, thought, language, human development, motivation, emotion, human sexuality, health and stress, personality theories, abnormal disorders, and therapies. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

## Psychology 110—Psychology of Adjustment (3)

The study of the concepts and principles of personal and social adjustment. Various theories of healthy adjustment are explored that include humanistic, cognitive, behavioral, psychodynamic, and biological approaches. These theories are coupled with the personal discipline and responsibility of the individual student. The material is geared to be relevant and applicable to contemporary society. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 125—Introduction to Counseling and Peer Helping (3)

An introductory course designed for students interested in counseling or helping roles: professional, paraprofessional, volunteer and peer. Basic theories and practices will be examined and analyzed within the human relations model. The student will learn techniques of attending, listening and responding, as well as ethics, intervention and referral. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## Psychology 140—Psychology of Adult Development (3)

A study of human development from late adolescence through the stages of early, middle and late adulthood. Emphasis will be on theories of physical, cognitive, and psychosocial development. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 158—Introduction to Abnormal Psychology (3)

**Prerequisite:** Psychology 100.

An introduction to emotional and mental disorders from a biological, sociological, and psychological approach. Recommended for, but not limited to, psychology and/or other mental health care career students, psychology technicians, human services personnel, MFCC and LCSW students. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 160—Statistics for the Behavioral Sciences (3) (CAN PSY 6)

**Prerequisite:** Mathematics 030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Basic statistical procedures and their application to research and practice in the various areas of the behavioral sciences. Calculation and meaning of descriptive and inferential statistics including estimation, correlation, regression, sampling theory, hypothesis testing, Z test, analysis of variance, T test and nonparametric statistics. May be taken for grades or on a credit-no credit basis. Students completing Mathematics 160 may petition for alternative credit for Psychology 160. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 165—Introduction to Human Sexuality (3)

Scientific analysis of human sexual behavior from the psychological, sociological, and physiological points of view. Designed to provide the academic and theoretical basis for the entire field of human sexuality. May be taken for grades or on a credit-no credit basis. Same as Sociology 165. Students completing Psychology 165 may not receive credit for Sociology 165. Three hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Psychology 175—Advanced Human Sexuality (3)

**Prerequisite:** Psychology 165 or Sociology 165.

Personality and socialization as related to sexual behavior, problems, and sexual dysfunction. How knowledge, preferences, lifestyle, awareness, and education influence sexuality. May be taken for grades or on a credit-no credit basis. Same as Sociology 175. Students completing Psychology 175 may not receive credit for Sociology 175. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 185—Principles of Psychology (3)

**Prerequisite:** Psychology 100.

This course is a survey of contemporary research in the subfield of psychology and addresses the processes underlying behavior, biology and behavior, and social behavior with an emphasis on contemporary interests, recent discoveries, and innovations in the field of psychology. Recommended for general education and for students majoring in the behavioral sciences. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 199AD—Current Topics in Psychology (5-3) (1-16 week course)

Study and discussion of topics and issues of current interest in psychology. Units vary according to topic selected, semester offered, and number of meetings scheduled. Of interest to the student majoring in psychology, social science or general education. May be taken for grades or on a credit-no credit basis. One half hour to three hours. **Transfer Credit: CSU.**

## Psychology 220—Psychology of Personality (3)

**Prerequisite:** Psychology 100.

A survey of the individual intellectual and emotional components of personality and the cultural, social and individualistic influences on it in the context of major theories and current research. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 250—Elementary Physiological Psychology (3)

**Recommended preparation:** Psychology 100.

An examination of the brain and its relationship to behavior including the following topics: the anatomy and physiology of the nervous system; principles of psychopharmacology and the impact of drugs on the brain; the role of the nervous system in sensation, perception, reproductive behavior, emotion, learning, memory ingestive behaviors, and neurological disorders. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 260—Social Psychology (3)

The scientific study of the influence of others on an individual's mental processes and behavior. This course explores topics such as the history and research methods of social psychology, self-perception, perception of others, attitudes and behavior, group influence and persuasion, stereotypes, prejudice, discrimination, theories of attraction and relationships, social influence, helping others, aggression, and the application of social psychological principles to health, business, and law. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Psychology 280—Introduction to Experimental Methods (4) (CAN PSY 8)

**Prerequisite:** Psychology 100.

This course addresses the principles and techniques which enter into experimental research concerning behavior and emphasizes designing, conducting, analyzing, and reporting research in the behavioral sciences. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

## RADIOLOGIC TECHNOLOGY

### Radiologic Technology 110—Radiological Physics and Protection (3)

**Prerequisite:** Technology 040 and Biology 221.

The fundamentals of radiation and radiological physics. Operation of medical radiographic x-ray units. A study of the effects of radiation in humans and the principles of protection as applied to radiography. Introduction to health physics instrumentation with a study of radiation control regulations. Two and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

### Radiologic Technology 165—Beginning Radiologic Practice (1.5) (8 week course)

**Prerequisite:** Allied Health 111.

Introduction to the radiology environment emphasizing professionalism, a humanistic approach to patients, medical/radiology records responsibilities, and medical/legal principles. Student obligations to clinical education are identified. Three hours. **Transfer Credit: CSU.**

### Radiologic Technology 170—Radiographic Positioning and Critique 1 (3)

**Prerequisite:** Allied Health 111.

Introduction to radiographic positioning principles, study of contrast media, acquaintance with x-ray apparatus, and laboratory practice and film critique of chest, abdominal studies and upper extremities. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

### Radiologic Technology 171—Clinical Lab 1 (1) (8 week course)

**Prerequisite:** Radiologic Technology 165 and Allied Health 115.

Clinical experience in an affiliated radiology department under the supervision of certified radiology and health care personnel. Radiographic skills in chest and abdomen procedures will be emphasized. Sixteen hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology 172—Clinical Lab 2 (1) (4 week course)**

**Prerequisite:** Radiologic Technology 171.

Clinical experience in an affiliated radiology department under the supervision of certificated radiology and health care personnel utilizing a condensed format. Radiographic skills to include assisting with routine contrast media studies of the GI and GU tracts. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology 175—Radiographic Positioning and Critique 2 (3)**

**Prerequisite:** Radiologic Technology 170.

Radiographic positioning principles, laboratory practice, and image analysis of the lower extremities, vertebral column, and basic skull. Overview of common pathologies of identified areas. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

**Radiologic Technology 176—Clinical Lab 3 (5.5)**

**Prerequisite:** Radiologic Technology 171 and 172.

Clinical experience in an affiliated radiology department under the supervision of certified radiology and health care personnel. Radiographic skills to be emphasized will be fluoroscopic procedures, GU tract, upper and lower extremities, and routine spinal column. Twenty-four hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology 177—Clinical Lab 4 (3) (8 week course)**

**Prerequisite:** Radiologic Technology 176.

Clinical experience in an affiliated radiology department under the supervision of certificated radiology and health care personnel. Radiographic skills to be emphasized will be routine skull radiography, portable radiography, minor special procedures, and introduction to pediatric and trauma radiography. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology 180—Radiographic Imaging (3)**

**Prerequisite:** Technology 040.

An introductory course to the factors influencing radiographic image formation, principles of film processing, digital imaging, exposure techniques, and essentials of radiographic image quality. Radiographic image critique skills will be developed. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Radiologic Technology 185—Radiographic Pathology (1) (8 week course)**

**Prerequisite:** Radiographic Technology 170.

Advanced study, identification, and critique of common radiographic pathologies in major body systems. Assists the learner in providing quality patient care. Two hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Radiologic Technology 265—Principles of Digital Imaging and Computer Applications (2)**

**Prerequisite:** Radiologic Technology 165.

Introduction to computer aided medical imaging's as used in radiography departments. Applications include computed and digital radiography (CR/DR), CT, MRI, and other modalities. Basic imaging principles are applied, including physics, imaging protocols, and systems electronics. Software and display strategies for varying modalities will be discussed. Course does not include clinical experience. Two and one-half hours. **Transfer Credit: CSU.**

**Radiologic Technology 270—Radiographic Positioning and Critique 3 (3)**

**Prerequisite:** Radiologic Technology 175.

Radiographic positioning, film critique of advanced skull to include sinuses, TMJs, mastoids, mandible, facial bones, bony thorax and pelvic girdle. Introduction to ancillary imaging modalities including sectional anatomy. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Radiologic Technology 271—Clinical Lab 5 (7.5)**

**Prerequisite:** Radiologic Technology 177.

Clinical experience in an affiliated radiology department under the supervision of certified radiology and health care personnel. Emphasis on independent radiography and decision making. Advanced cranial studies and torso exams will be emphasized. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology 275—Radiographic Positioning and Critique 4 (3)**

**Prerequisite:** Radiologic Technology 270.

Introduction to advanced imaging principles and procedures to include diagnostic specials, interventional angiography, CT and MR. Sectional anatomy as related to these imaging procedures will be discussed. Principles of mammographic imaging per California State (RHB) regulations. Introduction to quality assurance principles and techniques. Elements of professional development. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**Radiologic Technology 276—Clinical Lab 6 (1) (4 week course)**

**Prerequisite:** Radiologic Technology 271.

Clinical experience in an affiliated radiology department under the supervision of certified radiology and health care personnel. Radiographic skills emphasized are advanced contrast media procedures, trauma, portable radiography, pediatric and surgical exams. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology 277—Clinical Lab 7 (5.5)**

**Prerequisite:** Radiologic Technology 276.

Clinical experience in an affiliated radiology department under the supervision of certified radiology and health care personnel. Emphasis on independent radiography and decision making. Professional growth and program exit skills are expected. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology 285—CRT/ARRT Board Preparation (1) (8 week course)**

**Prerequisite:** Radiologic Technology 110.

Comprehensive categorical review of diagnostic radiologic technology in preparation for state and national certification boards. Two hours. **Transfer Credit: CSU.**

**Radiologic Technology 290—Applied Physics & Fluoroscopy (2.5)**

**Prerequisite:** Radiologic Technology 110.

Applied principles of physics to current radiographic equipment including fluoroscopy, image viewing, and recording systems, and tomography. Study of knowledge and skills required to qualify student for fluoroscopy component of state licensure exam. Review of imaging concepts (analog and digital), x-ray beam quantity and quality, and radiation protection. Two and one-half hours. **Transfer Credit: CSU.**

**REAL ESTATE**

**Real Estate 110—Real Estate Principles (3)**

Designed for those preparing for the state real estate license examination for those with investments in real estate. Includes real property laws on such subjects as estates, title transfer, encumbrances, contracts, landlord/tenant, escrow, title insurance, real estate finance, financial institutions, appraisal, subdivision laws, taxation, licensing, education, and real estate management. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Real Estate 120—Legal Aspects of Real Estate (3)**

**Prerequisite:** Real Estate 110.

Escrows, sales contracts, trust deeds, landlord-tenant, liens, probate sales, joint tenancy, etc. Emphasizes the more complex aspects of real estate law as encountered by brokers and others who deal with real property. Three hours. **Transfer Credit: CSU.**

**Real Estate 130—Real Estate Practice (3)**

**Prerequisite:** Real Estate 110.

This course will cover commercial and residential real estate listing procedures, advertising, closing of sales and leases, financing, appraising, property management, leasing, maintaining trust fund records, recruiting sales staff, assigning farm (training) and territories, office systems and procedures, sales education and training, and motivation of staff. Three hours. **Transfer Credit: CSU.**

## Real Estate 140—Real Estate Appraisal (3)

**Prerequisite:** Real Estate 110.

This is an introductory course designed for brokers or those seeking entry level appraisal positions. The basic principles, theories and methods of appraising are discussed. Analysis of data and factors influencing value conclusions are emphasized. Three hours. **Transfer Credit: CSU.**

## Real Estate 150—Real Estate Finance (3)

**Prerequisite:** Real Estate 110.

Economics and legal aspects, sources of mortgage, money terms, math of real estate finance, appraisal for financing purposes. Three hours. **Transfer Credit: CSU.**

## Real Estate 190—Leasing of Commercial Properties (3) (8 week course)

Planning, evaluating and negotiating of leasing techniques, protocol for commercial properties including retail, office, industrial and apartment rentals. May be taken for grades or on a credit-no credit basis. Six hours. **Transfer Credit: CSU.**

## RELIGIOUS STUDIES

### Religious Studies 100—Introduction to Religious Studies (3)

An introduction to the study of religion as an academic discipline with particular emphasis on the nature of religion, the methods used to study religious life, ways of expressing religious experience, and the practice of religion. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Religious Studies 110—World Religion (3)

An identification of the nature of religious thinking and belief. The variety of patterns developed in both the West and the East are explored with a special emphasis on the relevance to the contemporary intellectual world. May be taken for grades or on a credit-no credit basis. Same as Philosophy 110. Students completing Religious Studies 110 may not receive credit for Philosophy 110. Three hours. **Transfer Credit: CSU; UC.**

### Religious Studies 115—Philosophy of Religion (3)

An examination of key issues and problems of religion, including the nature and significance of religion and religious experience, arguments for and against the existence of God, the nature of God, the problem of evil, and the relation between science and religion. May be taken for grades or on a credit-no credit basis. Same as Philosophy 115. Students completing Religious Studies 115 may not receive credit for Philosophy 115. Three hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

### Religious Studies 120—Ethics (3)

An introduction to ethical theories and problems. An analysis of the theories and principles on which moral judgments are based and the way these judgments are used in moral problems such as abortion, euthanasia, capital punishment, sexual equality, discrimination, censorship and economic justice. Special attention will be given to the kinds of arguments used in ethical discussion. May be taken for grades or on a credit-no credit basis. Same as Philosophy 120. Students completing Religious Studies 120 may not receive credit for Philosophy 120. Three hours. **Transfer Credit: CSU; UC.**

### Religious Studies 125—Introduction to the Bible (3)

This course covers the field of general Biblical introduction, including higher criticism, canonicity, methods of textual transmission, and history of the Bible in English. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Religious Studies 128—History of Christianity (3)

A history of Christianity focusing on its central periods, personalities and ideas from its origins to the present. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Religious Studies 130—Life and Times of Jesus (3)

A study of the historical situation of the world of Jesus' day and an investigation of the main outlines of His life and teaching. The contribution of Judaism and the Greek and Roman world to the shaping of the Christian religion. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Religious Studies 140—History of Judaism (3)

This course surveys the history of Judaism from the earliest possible time to the present time. It describes the time prior to Abraham and discusses the development of the literature, rituals, and ceremonies through the centuries to the present time. It shows the impact of Jewish practices and thought on the changing world. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Religious Studies 145—Mysticism and Meditation (3)

An identification of the nature of mysticism. An examination of the varieties of mysticism in the world with special emphasis on their development and practices. Meditation techniques related to mysticism will be examined and explained. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Religious Studies 150—Eastern Thought (3)

An introduction to the religions of Asia including Hinduism, Buddhism, Taoism, and Confucianism. In addition to historical background and the current status of the religion, the course will focus on the scripture of each religion. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Religious Studies 160—Contemporary Religious Topics: Islam (3)

Islam, the youngest of the world's major religions, has evolved to play a significant role in world politics. The course will introduce students to the beliefs and practices of Islam, its history and development, its contribution to the arts and sciences, and its significant role in the 21st century. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## Religious Studies 180—The Bible as Literature (3)

**Recommended preparation:** English 100.

Read, analyze, and write about important texts of the Old and New Testaments. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to Bible literature. Appreciate the literary devices and styles evident in the books of the Bible and the commentary made by individual works in the Bible on moral, social, and aesthetic issues. Examine the influence of the Bible on the student's own cultural background. Same as English 141. Students completing Religious Studies 180 may not receive credit for English 141. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

## RESPIRATORY CARE

### Respiratory Care 185—Respiratory Anatomy and Physiology (3)

**Prerequisite:** Biology 221.

Anatomy and physiology of the cardiopulmonary system with emphasis on abnormalities of function and clinical assessment by respiratory therapists. Includes anatomy of the pulmonary and cardiac systems, pulmonary ventilatory mechanics, pulmonary blood flow, diffusion, oxygen transport, hypoxemia and hypoxia, carbon dioxide transport, acid-base balance and regulation of respiration. Three hours. **Transfer Credit: CSU.**

### Respiratory Care 190—Basic Respiratory Care Equipment (3)

**Prerequisite:** Respiratory Care 185

**Corequisite:** Respiratory Care 191 and 195.

The theories of equipment operation, procedures, and rationale for treatment of cardiorespiratory illness including use of compressed gases, humidity, and aerosol equipment used in oxygen therapy, oxygen analysis, infection control, hyperinflation techniques, basic ventilation measurement, and intermittent positive pressure breathing (IPPB) and chest physiotherapy. Emphasizes clinical application of equipment and techniques. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Respiratory Care 191—Clinical Lab 1 (1.5)**

**Corequisite:** Respiratory Care 190 and 195.

Beginning clinical practice of procedures presented in Respiratory Care 190. Includes hospital and respiratory therapy department orientation, recordkeeping, patient chart evaluation, use of compressed gases, medical gas therapy, humidity and aerosol therapy, drug administration, sterilization and culturing of equipment, incentive spirometry, IPPB and chest physiotherapy, and patient assessment. Offered on a credit-no credit basis only. Eight hours laboratory/clinical. **Transfer Credit: CSU.**

**Respiratory Care 192—Clinical Lab 2 (1) (4 week course)**

**Prerequisite:** Respiratory Care 190, 191, and 195.

Continued applications of procedures and concepts of basic clinical therapy presented in the first year of the respiratory care program. Application and skills evaluations in advanced administration of aerosol therapy, IPPB, pharmacological agents, chest physiotherapy, medical gases, and patient assessment. Offered on a credit-no credit basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

**Respiratory Care 195—Respiratory Pharmacology (1) (8 week course)**

**Prerequisite:** Respiratory Care 185.

**Corequisite:** Respiratory Care 190 and 191.

A study of drugs and their administration in treating respiratory pathologies. Includes bronchodilators, steroids, mucokinetics, antibiotics and respiratory stimulants and depressants. Two hours. **Transfer Credit: CSU.**

**Respiratory Care 255—Home Care and Rehabilitation (1) (8 week course)**

**Prerequisite:** Respiratory Care 190.

Techniques and operation of respiratory home care and pulmonary rehabilitation. Includes special equipment set-up, patient and family education, patient evaluation, and care of the ventilator-dependent patient at home. Also includes regulations of home care and third-party reimbursement. Two hours. **Transfer Credit: CSU.**

**Respiratory Care 260—Arterial Blood Gases, Theory and Practice (2.5)**

**Prerequisite:** Respiratory Care 185.

Interpretation of arterial blood gases, arterial puncture technique, blood gas analysis. Interpretation of fluid and electrolyte imbalances, renal physiology and acid base control, phlebotomy theory. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Respiratory Care 265—Pulmonary Pathology (3)**

**Prerequisite:** Respiratory Care 185.

The study of cardiopulmonary disease processes with an emphasis on pathophysiology, manifestations and treatment. Relates each disease state to pulmonary evaluation, testing and treatment. Three hours. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Respiratory Care 270—Ventilators and Respiratory Management (2)**

**Prerequisite:** Respiratory Care 260.

**Corequisite:** Respiratory Care 276.

Principles and techniques of management of patients requiring ventilatory support. Includes mechanical descriptions of ventilators in common use (including laboratory demonstrations and hands-on practice), as well as patient assessment of need for ventilatory support along with assessment for changes in ventilatory support techniques. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

**Respiratory Care 275—Respiratory Care Procedures (3)**

**Prerequisite:** Respiratory Care 185.

**Corequisite:** Respiratory Care 276.

Respiratory care procedures including physical assessment of the chest, chest x-ray assessment, airway management, bronchoscopy, chest tube drainage, electrocardiogram performance and interpretation, and ALS procedures. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Respiratory Care 276—Clinical Lab 3 (4) (14 week course)**

**Prerequisite:** Respiratory Care 192.

**Corequisite:** Respiratory Care 270 and 275.

Clinical application of procedures and concepts presented in Respiratory Care 260, 270 and 275, as well as continuing experience in the skills utilized in Respiratory Care 191 and 192. Includes arterial puncture and analysis, airway management, artificial airways, mechanical aspiration of secretions, bronchoscopy, ventilatory management, patient assessment and monitoring, and other therapeutic measures as related to pathological processes. Offered on a credit-no credit basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

**Respiratory Care 278—Pulmonary Case Assessment (1) (4 week course)**

**Prerequisite:** Respiratory Care 276.

Assessment of critical pulmonary patients with emphasis on assessment techniques, critical care procedures, and management techniques as applied to case studies. Includes use of both actual and simulated patient scenarios using information gathering and decision making by the respiratory care practitioner. Four hours seminar, eight hours clinical. **Transfer Credit: CSU.**

**Respiratory Care 279—Physician Series 1 (.5) (8 week course)**

**Corequisite:** Respiratory Care 276.

Physician presentations on current topics in pulmonary medicine emphasizing patient assessment and treatment. Discussion with physicians about individual clinical problems. One hour. **Transfer Credit: CSU.**

**Respiratory Care 280—Critical Care Monitoring (1) (14 week course)**

**Prerequisite:** Respiratory Care 260 and 270.

**Corequisite:** Respiratory Care 286.

Discussion of theory, use, and application of medical techniques used to monitor cardiopulmonary status, and advanced techniques of diagnosis and treatment. Includes hemodynamic monitoring and in vivo blood gas monitoring. Two hours. **Transfer Credit: CSU.**

**Respiratory Care 285—Pulmonary Function Testing (2) (14 week course)**

**Prerequisite:** Respiratory Care 260 and 265.

Theory and application of function testing by mechanical and electronic devices. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Respiratory Care 286—Clinical Lab 4 (3) (10 week course)**

**Prerequisite:** Respiratory Care 276.

**Corequisite:** Respiratory Care 280 and 290.

Clinical application of respiratory therapy primarily in critical care areas. Includes airway management, patient assessment, ventilator mechanics and management, and monitoring of the critically ill patient. Offered on a credit-no credit basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

**Respiratory Care 287—Clinical Internship (2) (4 week course)**

**Prerequisite:** Respiratory Care 286.

Advanced clinical utilization of knowledge and skills in critical care or specialty areas. Cumulative application of assessment, diagnostic, therapeutic, and judgmental skills acquired within the respiratory care program. Offered on a credit-no credit basis only. Forty hours laboratory/clinical. **Transfer Credit: CSU.**

**Respiratory Care 289—Physician Series 2 (.5) (8 week course)**

**Corequisite:** Respiratory Care 286.

Advanced level physician presentations on current topics in pulmonary medicine emphasizing patient assessment and treatment. Discussion with physicians about individual clinical problems. One hour. **Transfer Credit: CSU.**

**Respiratory Care 290—Neonatal Intensive Care (2) (14 week course)**

**Prerequisite:** Respiratory Care 260, 270 and 275.

**Corequisite:** Respiratory Care 286.

Theory and practice of neonatal intensive respiratory care with an emphasis on the role of the respiratory care practitioner. Includes fetal anatomy and physiology, delivery and assessment, resuscitation techniques, neonatal pathologies, respiratory care diagnostic techniques and therapeutic procedures, and techniques for mechanical ventilation. Provider approved by the California Board of Registered Nursing, CEP #12655 for 56 hours. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Respiratory Care 296—Respiratory Care Board Review (1.0) (8 week course)**

**Prerequisite:** Respiratory Care 278.

Comprehensive categorical review of diagnostic and therapeutic modalities in respiratory care to prepare for national certification, national registry, and state licensing board examinations. Two hours lecture. **Transfer Credit: CSU.**

**SCHOOL HEALTH ASSISTANT**

**School Health Assistant 100—School Health Assistant Administration (3)**

The principles and skills required of a School Health Assistant in the educational setting. Includes the role and responsibilities, overview of legal and ethical responsibilities, cultural issues, interpersonal relationships, health office management techniques and skills, health records, and reporting. Three hours. **Transfer Credit: CSU.**

**School Health Assistant 105—School Healthcare for Children (4)**

Applicational skills required of a School Health Assistant in providing healthcare needs for children. To include physical findings, acute and chronic illnesses, emergency care, communicable diseases, screening, record keeping, treatments, and medications. Four hours. **Transfer Credit: CSU.**

**SOCIOLOGY**

**Sociology 105—Sociology of Nonverbal Behavior (3)**

An analysis and individual awareness of nonverbal behavior in human interaction with emphasis on western cultural patterns. Attention is given to the various levels or segments of nonverbal human interaction, including gesture, spatiality, body positioning, and expression laughter. Foundations and developmental patterns of nonverbal dimensions are explored. Same as Anthropology 105. Students completing Sociology 105 may not receive credit for Anthropology 105. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Sociology 110—Introduction to Marriage and the Family (3)**

The family, its structures and functions. Emphasis on the sociological theory and research on marriage, kinship systems, components of mate selection, intimate relationships, and child-rearing practices. The family is examined in historical perspective and in relation to social change. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 115—Contemporary Chicano (3)**

An investigation and study of the concerns, issues, and problems facing the Chicano in American life, particularly in California, since the 1930s. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

**Sociology 150—Multicultural Behavior (3)**

Multicultural approaches to cultural diversity including immigration policy, affirmative action, and bilingual debates. Intercultural comparisons including Native American, African American, Hispanic American, Asian American, and European American cultural traditions. Social science theories and methodologies for development of positive intercultural relationships. Same as Anthropology 150. Students completing Sociology 150 may not receive credit for Anthropology 150. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 165—Introduction to Human Sexuality (3)**

Scientific analysis of human sexual behavior from the psychological, sociological and physiological points of view. Designed to provide the academic and theoretical basis for the entire field of human sexuality. May be taken for grades or on a credit-no credit basis. Same as Psychology 165. Students completing Sociology 165 may not receive credit for Psychology 165. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 175—Advanced Human Sexuality (3)**

**Prerequisite:** Sociology 165 or Psychology 165.  
Personality and socialization as related to sexual behavior, problems, and sexual dysfunction. How knowledge, preferences, lifestyle, awareness, and education influence sexuality. Same as Psychology 175. Students completing Sociology 175 may not receive credit for Psychology 175. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 180—Introductory Sociology (3) (CAN SOC 2)**

The study of social interrelationships and human group organization. Attention is given to the foundations of society, culture, group organization, social differentiation, and the methods of sociological study. Emphasis is on American social institutions. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 180H—Honors Introductory Sociology (3)**

The study of social interrelationships and human group organization. Attention is given to the foundations of society, culture, group organization, social differentiation, and the methods of sociological study. Emphasis is on American social institutions. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 185—Analysis of Social Problems (3) (CAN SOC 4)**

An analysis of contemporary social problems. Topics include global ecology, political economy, sexual behavior, drug use, racism, sexism, ageism, education, environment, health issues, crime, and violence. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 185H—Honors Analysis of Social Problems (3)**

An analysis of contemporary social problems. Topics include global ecology, political economy, sexual behavior, drug use, racism, sexism, ageism, education, environment, health issues, crime, and violence. Three hours. **Transfer Credit: CSU; UC.**

**Sociology 190—The Ethnic Family (3)**

Ethnic and minority families in the United States today. Emphasis on family interaction, child training patterns, the family's relationship to society and community-helping agencies. Same as Ethnic Studies 190. Students completing Sociology 190 may not receive credit for Ethnic Studies 190. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**SPANISH**

**Spanish 180—Elementary Spanish (5) (CAN SPAN 2)**

Developing elementary proficiency in speaking, listening, reading, and writing in Spanish. Introduction to Hispanic cultures through selected readings and discussions. Designed for students seeking to fulfill foreign language requirements and for those who wish an introduction to the language and to the rich and varied cultures in which it is used. This course is equivalent to two years of high school Spanish. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Spanish 180H—Honors Elementary Spanish (5)**

Developing elementary proficiency in speaking, listening, reading, and writing in Spanish. Introduction to Hispanic cultures through selected readings and discussions. Designed for students seeking to fulfill foreign language requirements and for those who wish an introduction to the language and to the rich and varied cultures in which it is used. This course is equivalent to two years of high school Spanish. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Spanish 185—Elementary Spanish (5) (CAN SPAN 4)**

**Prerequisite:** Spanish 180 or completion of two years of high school Spanish with a grade of 'C' or better.

Continuation of Spanish 180 emphasizing the continued development of elementary proficiency in speaking, listening, reading, and writing in Spanish. Further study of Hispanic cultures through selected readings and discussions. Designed for students seeking to fulfill foreign language requirements and for those who wish to expand their knowledge of the language and of the rich and varied cultures in which it is used. This course is equivalent to three years of high school Spanish. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Spanish 185H—Honors Elementary Spanish (5)**

**Prerequisite:** Spanish 180H or completion of two years of high school Spanish with a grade of 'C' or better.

Continuation of Spanish 180H emphasizing the continued development of elementary proficiency in speaking, listening, reading, and writing in Spanish. Further study of Hispanic cultures through selected readings and discussions. Designed for students seeking to fulfill foreign language requirements and for those who wish to expand their knowledge of the language and of the rich and varied cultures in which it is used. This course is equivalent to three years of high school Spanish. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Spanish 199AD—Current Topics in Spanish (2-5) (16 week course)**

Study and discussion of topics and issues of current interest in the Hispanic world and cultures of Spain, Latin America, and the United States. Group participation by level to develop skills in using Spanish through listening, reading, writing, and speaking activities. This course may also be offered online. May be taken for grades or on a credit-no credit basis. Two to five hours. **Transfer Credit: CSU.**

**Spanish 260—Spanish for Spanish Speakers (5)**

Designed to improve the communications skills of Spanish speaking students who need formal training in the language, the course focuses on formal speaking, reading, grammar, spelling, vocabulary building, and composition. The diversity of the Hispanic culture through literature, music, and film will be explored. The course will be taught in Spanish. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Spanish 280—Intermediate Spanish (5) (CAN SPAN 8)**

**Prerequisite:** Spanish 185.

Continuation of Spanish 185. Includes further study of the Spanish language and Hispanic cultures with practice in speaking, listening, reading, and writing at the intermediate level. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Spanish 280H—Honors Intermediate Spanish (5)**

**Prerequisite:** Spanish 185H.

Continuation of Spanish 185H. Includes further study of the Spanish language and Hispanic cultures with practice in speaking, listening, reading, and writing at the intermediate level. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

**Spanish 285—Intermediate Spanish (5) (CAN SPAN 10)**

**Prerequisite:** Spanish 280 or 280H.

Continuation of Spanish 280. Emphasis is on culturally authentic reading and writing, along with continued development of listening/speaking competencies. Course generally continues formal study of language structure and will introduce basic literary concepts. Emphasis is on development of cohesive written narratives and expository prose as preparation for higher level specialized work. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**SPEECH COMMUNICATION**

**Speech Communication 100—Interpersonal Communication (3) (CAN SPCH 8)**

This course is designed to teach students effective communication skills through the study of self-concept, listening, perception, language usage, persuasion, and nonverbal communication. Emphasis is on developing and applying good communication skills and overcoming the barriers to effective communication. Writing and speaking skills are emphasized and evaluated. Three hours. **Transfer Credit: CSU.**

**Speech Communication 105—Intrapersonal Communications (3)**

This course is designed to teach students effective communication processes with and about oneself. Emphasis is on developing greater self-awareness and self-esteem by studying cognitive science, language and symbolic processing, perception, and nonverbal communication skills. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**Speech Communication 110—Public Speaking (3) (CAN SPCH 4)**

Overcoming stage fright and developing organization, research, and delivery skills. Students will learn to outline, write, and deliver various types of speeches. An emphasis is placed on speaking, listening, and critical thinking skills. Three hours. **Transfer Credit: CSU; UC.**

**Speech Communication 120—Oral Interpretation of Literature (3)**

This course explores the oldest performance tradition, storytelling, and focuses on the principles and methods of effective oral interpretation. Through analysis of poetry, plays and stories, in both individual and group performance, the student will learn to edit and construct a script, and to perform successfully. Three hours. **Transfer Credit: CSU; UC.**

**Speech Communication 130—Argumentation and Persuasion (3) (CAN SPCH 6)**

Theory and practice of argumentation and persuasion with emphasis on critical thinking skills as they apply in listening, speaking, and writing. This course may also be offered online. May be taken for grades or on a credit no-credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Speech Communication 150AD—Forensics Workshop (1-4)**

Speech competition in debate, extemporaneous, impromptu, persuasive speaking, informative speaking, reader's theatre, and interpretation events. May be taken for 1, 2, 3 or 4 units depending on the number of hours and the number of events and tournaments in which the student participates. One hour lecture, zero to nine hours non-lecture. **Transfer Credit: CSU.**

**Speech Communication 155—Intercultural Communications (3)**

The study, practice, and application of communication theories as they relate to different cultural, subcultural, ethnic, and racial groups. Emphasis is on interpersonal effectiveness, including skills in nonverbal processing, assessment of different cultural interactional patterns, and the reduction of racism and ethnocentrism. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Speech Communication 165—Men, Women, and Communication (3)**

Major issues regarding communication behaviors between men and women in various environments will be discussed. Focus is on problem analysis and decision making specific to gender conflict and how gender is communicated and constructed in our daily lives. Same as Gender Studies 165. Students completing Speech Communication 165 may not receive credit for Gender Studies 165. Three hours. **Transfer Credit: CSU.**

**Speech Communication 170—Nonverbal Communication (3)**

The analysis and application of nonverbal cues and their effect on interpersonal and intercultural communication. Emphasis is on developing effective communication skills as they relate to physical appearance and dress, body movement, face and eye communication, vocal cues which accompany spoken words, and the use of environment and space. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU.**

**SPEECH-LANGUAGE PATHOLOGY ASSISTANT**

**Speech-Language Pathology Assistant 100—Introduction to Speech-Language Pathology Assistant (2)**

An introduction to the Speech-Language Pathology Assistant career. Professional standards and responsibilities, legal and ethical issues, government regulations, and management of individuals with speech-language and hearing disorders are emphasized. Consideration is given to cultural, ethnic, and linguistic diversity. Two hours. **Transfer Credit: CSU.**

**Speech-Language Pathology Assistant 115—Speech, Language, and Hearing Development (3)**

Structural human anatomy and physiology with emphasis on the developmental function of speech, hearing, and swallowing mechanisms. Development of phonation into speech production and language development. Three hours lecture, one hour lab. **Transfer Credit: CSU.**

**Speech-Language Pathology Assistant 120—Speech-Language Administrative Procedures (2)**

Organizational and functional skills required in the speech pathology workplace. Emphasis on office management, client interaction requirements, communication techniques, technical writing, educational techniques, and computer applications. Two hours lecture, one hour lab. **Transfer Credit: CSU.**

## Speech-Language Pathology Assistant 140— Introduction to Communication Disorders (3)

**Prerequisite:** Speech-Language Pathology Assistant 115.

Study of communication disorders in both children and adults to include classification and prevalence, types of disorders, classification, diagnostic techniques, remediation of speech, and treatment protocols. The role of the speech-language pathologist and audiologist is covered. Three hours. **Transfer Credit: CSU.**

## Speech-Language Pathology Assistant 150— Introduction to Phonetics (3)

**Corequisite:** Speech-Language Pathology Assistant 140.

Introduction to phonetics, including the analysis, description, and transcription of speech. The course encompasses speech production, acoustics, International Phonetic Alphabet, phonetic measurements, dialects, and the analysis of both normal and abnormal speech sounds. Protocol techniques for therapy are covered. Three hours lecture, two hours lab. **Transfer Credit: CSU.**

## Speech-Language Pathology Assistant 160—SLPA Clinical Experience 1 (.5) (4 week course)

**Corequisite:** Early Childhood 165.

Beginning clinical observation of practices and procedures required in the workplace. Patient interaction, observation skills, record keeping, and beginning practice of therapeutic protocols will be covered. Offered on a credit-no credit basis only. Four hours clinical observation, one hour arranged. **Transfer Credit: CSU.**

## Speech-Language Pathology Assistant 180— Screening and Therapeutic Processes (3)

**Prerequisite:** Speech-Language Pathology Assistant 140.

Screening procedures and equipment used in evaluation of client status and development of treatment protocols. Administration of screening assessment tests, protocol forms, use of checklists and anecdotal records for speech, hearing, and language disorders. The course includes therapeutic equipment and procedures used in client protocol applications and patient safety issues. Two hours lecture, three hours lab. **Transfer Credit: CSU.**

## Speech-Language Pathology Assistant 190—SLPA Clinical Experience 2 (2)

**Prerequisite:** Speech-Language Pathology Assistant 160

**Corequisite:** Speech-Language Pathology Assistant 180. Application of clinical practice procedures and therapeutic techniques under the guidance of a speech pathologist. Patient observation, assessment, treatment protocols, and record keeping procedures. Offered on a credit-no credit basis only. Twelve hours clinical, one hour discussion. **Transfer Credit: CSU.**

## Speech-Language Pathology Assistant 200—Adult and Geriatric Disorders (2)

**Prerequisite:** Speech-Language Pathology Assistant 180.

Therapeutic techniques and assessment directed at adult and geriatric conditions. Special emphasis on acquired conditions and specialized application/adaptation of screening, protocols, and therapy. Two hours. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## Speech-Language Pathology Assistant 250—SLPA Clinical Experience 3 (4)

**Prerequisite:** Speech-Language Pathology Assistant 180 and 190.

Advanced application of clinical practice procedures and techniques performed by a speech-language pathology assistant. Includes direct patient interaction and therapeutic techniques under the guidance of a speech pathologist. Patient observation, assessment, treatment protocols, record keeping procedures, and discussion of case study management issues are also covered. Offered on a credit-no credit basis only. Sixteen hours clinical, two hours discussion. **Transfer Credit: CSU.**

## TECHNICAL WRITING

(See *English 105 AND English 109*)

## TECHNOLOGY

### Technology 040—Technical Math (3)

An applied math course designed for the student with minimal background in mathematics to develop "need to know" skills necessary to be successful in technical, science, and vocational courses which require specific mathematical skills. Considerable review of essential math is emphasized. May be taken for grades or on a credit-no credit basis. Four hours.

## THEATRE ARTS

### Theatre Arts 100—Introduction to Theatre (3) (CAN DRAM 18)

A course designed for those who wish to explore more thoroughly the performing arts with special attention given to a survey of all the contributing elements. An examination through lecture, demonstration, laboratory participation, small group discussion, guest performers and speakers of all areas of theater production. A course designed to prepare the student for other course offerings in the theatre curriculum. Students are required to see two college-produced plays. Three hours. **Transfer Credit: CSU; UC.**

### Theatre Arts 101—Introduction to History and Literature of the Theatre (3)

An introduction to the development of drama, including elements of dramatic structure, types of drama, and the contributions of the playwright, actor, director, and designer. Discussion will also cover important eras in theatre history and several classic plays. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

### Theatre Arts 104AB—Improvisation (3)

The rehearsal and performance of individual and group improvisational scenes and exercises. The goal of the course is to help students work with ease in front of an audience or camera. May be taken for grades or on a credit-no credit basis. Two hours lecture, two hours studio. **Transfer Credit: CSU; UC.**

### Theatre Arts 105—Drama and Acting (3)

Drama and acting provide the general education student with an introduction to acting and the analysis of specific plays. The structure of drama is examined and scenes and monologues performed in class are from selected plays. Three hours. **Transfer Credit: CSU; UC.**

### Theatre Arts 106—Acting Fundamentals (3) (CAN DRAM 8)

An introduction to acting. Units of study will include interaction, characterization, and emotion. Students are expected to participate in class exercises, prepare memorized scenes, and critique the acting techniques employed in two dramatic productions outside of class. Required for theatre arts majors. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

### Theatre Arts 107—Acting 2 Fundamentals (3) (CAN DRAM 22)

A continuation of the acting craft begun in Theatre Arts 106. Students will focus greater attention to characterization, monologue, scene study, and vocal technique. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

### Theatre Arts 108—Comedy Workshop (3)

Introductory course exploring the unique demands associated with performing comedy scenes, monologues, skits, improvisations, and stand-up. Great comedians and comic literature will be studied. Students will participate in at least one comedy performance for an audience. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

### Theatre Arts 109AB—Musical Theatre Workshop (3)

Students will prepare, rehearse, and perform scenes, monologues, dances, and songs from musical comedy, musical drama, musical revues, operetta, and opera. Areas of concentration and historic movements in musical theatre will be discussed. May be taken for grades or on a credit-no credit basis. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

### Theatre Arts 110AD—Theatre Laboratory (2)

Technical theatre and general theatre process under faculty supervision. Six hours laboratory. **Transfer Credit: CSU; UC.**

**Theatre Arts 115—Acting for Camera and Stage (3)**

**Prerequisite:** Theatre Arts 106.

This course explores the comparative processes of stage, television, and cinema acting and the similarities found in the creative acting process contrasted with the differences in the techniques applied in the three performance arenas of film, stage, and television. The student will be introduced to both the artistic mode and the practical aspects of acting, including agents, guilds, unions, commercials, feature films, industrial video, live theatre, equity waiver, soap operas, regional repertory, and location work. The course will include scene work, exercises, on-camera experience, field trips to assorted professional acting environments, guest speakers, video comparison studies of prominent actors in the field, and translation of acting exercises, scenes, etc., from one medium into the other two. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU; UC.**

**Theatre Arts 141AD—OCC Theatre Repertory (1-3)**

Participation in workshop or experimental productions. Designed to extend and enrich basic theatre background established in beginning acting and technical courses. Students direct, act and mount one-act and experimental plays. During their study, students will also be involved in scenery, costuming, lighting, make-up and publicity. May be taken for grades or on a credit-no credit basis. One hour lecture, two to eight hours non-lecture. **Transfer Credit: CSU; UC.**

**Theatre Arts 144AD—Summer Theatre Festival (4) (8 week course)**

Students participate in the pre-production, planning, audition, rehearsal, and performance of a theatrical production or productions in repertory. May be taken for grades or on a credit-no credit basis. Four hours lecture, sixteen hours laboratory. **Transfer Credit: CSU; UC.**

**Theatre Arts 145AB—Touring Production (3)**

Students will participate in elements of presenting a show at various locations. These elements will include: acting, set design, set construction, lighting, sound design, costuming, make up, and interaction with audiences through question and answer sessions. This course may require occasional overnight stays. Roles are assigned through audition. One hour lecture, seven hours studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 165AD—Stagecraft Lab (1) (8 week course)**

Introduction to stage craft activities including scenery construction, set painting, light rigging, stage props and theatre operations. One hour lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

**Theatre Arts 170AD—Stage Crew Activity (1)**

The student will participate in productions presented to the community in one or more of the following areas of concentration: scenery building and painting, stage lighting, and stage property design and construction. Strongly recommended for theatre majors. Three hours studio. **Transfer Credit: CSU; UC.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Theatre Arts 171AD—Play Production (2) (8 week course)**

Participation in productions presented to the community. Students will be involved in one or more of the following areas of concentration: scenery building and painting, stage lighting, make-up, costumes, publicity, house management, and acting. Assignments will be given to the student upon enrollment in the course. All actors will pass auditions. Strongly recommended for theatre majors. May be taken for grades or on a credit-no credit basis. Two hours lecture, ten hours studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 172AD—Elizabethan Play Workshop and Production (3)**

Study and participation in productions of plays from the Elizabethan era by such playwrights as Shakespeare, Marlowe, Fletcher, and Jonson. Studies will explore social and moral attitudes and customs of the period. Students may participate in one or more of the following areas of concentration: acting, stage management, house management, or technical assignments. All actors will pass auditions. May be taken for grades or on a credit-no credit basis. One hour lecture, seven hours non-lecture. **Transfer Credit: CSU; UC.**

**Theatre Arts 173AD—Classic American Play Production (2)**

Student participation in a production of classic American plays written before 1965. Students will be involved in one of the following areas of concentration: assistant directing, stage management, acting, front of house management, design, and technical assignments. May be taken for grades or on a credit-no credit basis. One hour lecture, five hours non-lecture. **Transfer Credit: CSU; UC.**

**Theatre Arts 174AD—Children's Theatre Workshop and Production (2)**

Participation in children's theatre production presented to the community. The student will be involved in one or more of the following areas of concentration: acting, assistant directing, stage management, house management, design, and technical production assignments. May be taken for grades or on a credit-no credit basis. One hour lecture, five hours non-lecture. **Transfer Credit: CSU; UC.**

**Theatre Arts 175—Stage Scenery (3)**

The course includes an in-depth study of all the diverse theatre crafts such as scenery, construction, scene painting and properties, and a survey study of scenery design. Also, the historical development and major trends of stagecraft will be studied. The student will prepare a practical project consisting of a scene design or scale model. Required for students planning to transfer to CSU Long Beach and Fullerton. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 176—Stage Lighting (3)**

An introductory course in stage lighting that includes basic electronics, color, projection, types, uses, and maintenance of lighting equipment, and lighting design. Students will participate in the lighting of college productions. Recommended for students who are interested in television and film/video. Required for the student planning to transfer to CSU Long Beach and UCI. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 177AD—Make-up (3)**

A practical introduction to the techniques of applying theatrical and film make-up. Recommended for students of drama interested in gaining a better understanding of the proper uses of theatrical make-up. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 178—Costume Crafts (3)**

An introduction to costuming for the theatre and the entertainment industry. Topics include: fabrics, basic sewing techniques, costume history and design, costume accessories, script analysis, costume craft tools, materials, and techniques. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 188—Body Movement for the Actor (3)**

Instruction in the use of the body as an expressive instrument in performance, the use of strength, flexibility, relaxation, control, and the relationship of the body to the creative project are concepts which are discussed. May be taken for grades or on a credit-no credit basis. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 189—Stage Combat (2)**

Fundamentals of stage combat emphasizing such weapons as quarterstaff, foil, epee, sabre, broadsword, rapier, and dagger. Such stunt techniques as fist fighting and falls are included. Strongly recommended for acting majors and theatre arts teachers. May be taken for grades or on a credit-no credit basis. Two hours lecture, two hours studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 200—Voice and Articulation (3) (CAN DRAM 6)**

**Recommended preparation:** Sophomore standing. Major physiological bases of speech. Problems of speaking correctly. May be taken for grades or on a credit-no credit basis. Three hours. **Transfer Credit: CSU; UC.**

**Theatre Arts 206—Acting 3—Scene Study (3)**

Advanced techniques based on the study, analysis, rehearsal, and performance of dramatic scenes. Areas of concentration include projection and articulation, goal discovery and setting, and the use of imagery and connection. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

**Theatre Arts 207—Acting 4—Classical Styles (3)**

Advanced acting techniques with particular emphasis on stage diction. Units of study include phonetics, voice, projection, vocal quality, dialects, and the application of vocal techniques to dramatic literature. Required of theatre arts majors. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

## Theatre Arts 215—Rehearsal and Performance (2)

A course designed to enrich and extend the basic technical theatre and acting background established in the beginning stagecraft and acting classes. Actual participation in college productions in all aspects. Area of participation is selected by the student to satisfy individual interests. One hour lecture, three hours studio. **Transfer Credit: CSU; UC.**

## Theatre Arts 271—Elements of Stage Design (3)

An intense study of stage design techniques going far beyond the introductory stage. The course is designed to provide both background and experience in set conceptualization, rendering, floor planning, model building, scenic art techniques, and materials selection. Two hours lecture, four hours studio. **Transfer Credit: CSU; UC.**

## Theatre Arts 275AD—Directing (3)

An examination of the basic principles and problems in play direction. Each student will be required to complete a directing project, such as directing one of the productions in the repertory, serve as assistant, or stage manage a faculty directed production or a project arranged upon in conference with instructor. Three hours lecture, four hours studio. **Transfer Credit: CSU; UC.**

## Theatre Arts 276—Performing Arts Management (2) (8 week course)

Economic and administrative aspects of American theatre and performing arts applied to repertory, community, and educational organizations. Administrative assignments related to stage productions, as well as other performances. May be taken for grades or on a credit-no credit basis. Four hours. **Transfer Credit: CSU.**

## TOOL DESIGN

(See *Machine Technology*)

## TUTORING

### Tutoring 050AD—Supervised Tutoring (0)

Provides the student supervised peer tutorial services necessary to increase the probability of their succeeding in course work. Enrollment is open all semester. This course may be repeated as necessary. Offered on a no credit basis only. Two hours arranged. Not applicable to AA degree.

### Tutoring 150AD—Tutoring Skills/Tutorial Center (1)

Designed for students who meet the criteria to be tutors in one of the Tutorial Centers. Tutoring skills development in the areas of interpersonal and communication skills, learning styles, study skills techniques, diversity/cultural awareness, and Socratic method. Analysis of appropriate behavior. Open registration. May be taken for grades or on a credit-no credit basis. One hour lecture, two hours non-lecture. Not applicable to AA degree. **Transfer Credit: CSU.**

All courses numbered 100 or higher are transferable to the California State Universities (CSU).

Courses that are transferable to the University of California are designated "UC". Some of these courses have limits on the amount of credit that is granted. See the end of this section for a list of these limitations.

## VIETNAMESE

### Vietnamese 180—Elementary Vietnamese (5)

Introduction to the Vietnamese language with emphasis on the tones, sound system, vocabulary, and grammar necessary for the development of basic listening, speaking, reading, and writing skills. Vietnamese culture and civilization will also be covered. This course is equivalent to two years of high school Vietnamese. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

### Vietnamese 185—Elementary Vietnamese (5)

**Prerequisite:** Vietnamese 180 or completion of two years of high school Vietnamese with a grade of 'C' or better. Continuation of Vietnamese 180 for students seeking further development of basic listening, speaking, reading, and writing in the Vietnamese language at a second semester level. Introduction to Vietnamese culture and civilization through selected readings and discussions. This course is equivalent to three years of high school Vietnamese. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU; UC.**

### Vietnamese 280—Intermediate Vietnamese (5)

**Prerequisite:** Vietnamese 185. Continuation of Vietnamese 185 for students seeking further study of the Vietnamese language and culture with practice in listening, speaking, reading, and writing at the intermediate level. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU.**

### VIETNAMESE 285—Intermediate Vietnamese (5)

**Prerequisite:** Vietnamese 280. Continuation of Vietnamese 280 for students seeking further study of the Vietnamese language and culture with practice in listening, speaking, reading, and writing at the high-intermediate level. May be taken for grades or on a credit-no credit basis. Five hours. **Transfer Credit: CSU.**

## WELDING TECHNOLOGY

### Welding Technology 100—Arc and Oxy-acetylene Welding (3)

Beginning course in arc and oxy-acetylene welding that covers safety practices, use of equipment, brazing and cutting operations, and applications to various types of steels. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 101—Arc and Oxy-acetylene Welding (4)

Beginning course in arc and oxy-acetylene welding that covers safety practices, use of equipment, welding in all positions, brazing and cutting operations, and applications to various types of steels. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 102AD—Weld Testing GMAW (.5) (1-16 week course)

Weld testing for mastery of levels I, II, III, and/or IV in the Gas Metal Arc Welding process. When completed, may lead to a Certificate of Completion. A Certification Certificate will also be issued for the appropriate level. Offered on a credit-no credit basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 103—Weld Testing GMAW (.5) (1-16 week course)

Weld testing for mastery of Gas Metal Arc Welding process to the industry standard set by the Inter-Industry Conference on Auto Collision Repair (I-CAR) required tests. A Welder Qualification Certification will be issued. Offered on a credit-no credit basis only. One and one-half hours to twenty-seven hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 104—Weld Testing GTAW (.5) (1-16 week course)

Weld testing for mastery of level I in the Gas Tungsten Arc Welding process. When completed may lead to a certificate of completion. Offered on a credit-no credit basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 105AD—Weld Testing Basic (.5) (1-16 week course)

Weld testing for mastery of levels I, II, III, or IV in the Shielded Metal Arc Welding process. When completed, may lead to a Certificate of Completion. A Certification Certificate will also be issued for the appropriate level. Offered on a credit-no credit basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 106AB—Weld Testing Intermediate (.5) (1-16 week course)

Weld testing for mastery of level V and/or VI in the Shielded Metal Arc Welding process. When completed, may lead to a Certificate of Completion. A Certification Certificate will also be issued for the appropriate level upon successful completion. Offered on a credit-no credit basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 107AC—Weld Testing Advanced (.5) (1-16 week course)

Weld testing for mastery of levels VII, VIII and/or IX in Shielded Metal Arc Welding. Offered on a credit-no credit basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

### Welding Technology 108AD—Weld Testing Advanced (.5) (1-16 week course)

Weld testing for mastery of levels I, II, III, and/or IV in Flux Cored Arc Welding. Offered on a credit-no credit basis only. One and one-half hours to twenty-seven hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 109AD—Weld Testing FCAW (.5) (1-16 week course)**

Weld testing for mastery of levels V, VI, VII, and/or VIII in Flux Cored Arc Welding. May lead to a Certificate of Completion. A Certification Certificate will also be issued for the appropriate level upon successful completion. Offered on a credit-no credit basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 110—Weld Testing FCAW (.5) (1-16 week course)**

Weld testing for mastery of level IX in Flux Cored Arc Welding. When completed, may lead to a Certificate of Completion. A Certification Certificate will also be issued for the appropriate level upon successful completion. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 111AB—Weld Testing Pipe (.5) (1-16 week course)**

Weld testing for mastery of levels I and/or II in the Pipe Welding process or Gas Tungsten Arc and Shielded Metal Arc Welding processes. Offered on a credit-no credit basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 115AD—Arc and Oxy-acetylene Welding Practice (1-2)**

**Prerequisite:** Welding Technology 100 or concurrent enrollment.

A laboratory class to develop skills in arc and oxy-acetylene welding. Three to fifty-four hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 120—Mathematics and Science for Welding Technology (3)**

Survey course covering the principles of mathematics, elementary chemistry, and physics required for study of welding metallurgy. Three hours. **Transfer Credit: CSU.**

**Welding Technology 122AD—Beginning Welding (1.5)**

Arc and oxy-acetylene welding and cutting theory and laboratory practice. Three hours lecture/laboratory. **Transfer Credit: CSU.**

**Welding Technology 123AD—Advanced Welding (1.5)**

**Prerequisite:** Welding Technology 122AD.

Advanced welding theory and practice of ferrous and non-ferrous metals. Covers certification requirements and use of welding symbols. Three hours lecture/laboratory. **Transfer Credit: CSU.**

Course numbers followed by an AB, AC, or AD may be repeated once, twice or three times respectively.

Courses that are non-credit or not AA applicable are designated with the letter "N" preceding the course number.

**Welding Technology 130AD—Gas Tungsten Arc Welding (1.5) (8 week course)**

**Prerequisite:** Welding Technology 100.

GTAW (Gas Tungsten Arc Welding) theory and practice covering aluminum and stainless steels and qualification requirements. May be taken for grades or on a credit-no credit basis. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 180—Blue Print Reading (2) (8 week course)**

A basic course in the reading of blueprints associated with the welding fabrication industry. Four hours lecture, two hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 200—Advanced Welding (3)**

**Prerequisite:** Welding Technology 100 or 101.

Advanced welding theory and practice covering gas shielded arc processes, welding of non-ferrous metals, certification requirements, and use of welding symbols. Two hours lecture four hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 201—Advanced Welding (4)**

**Prerequisite:** Welding Technology 100 or 101.

Advanced welding theory and practice covering gas shielded arc processes, welding of non-ferrous metals, certification requirements and use of welding symbols. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 210—Welding Inspection and Testing (4)**

Physical tests, metallographic analysis, visual inspection, nondestructive testing of welds, and chemical analysis of metals and alloys. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 211AB—I-CAR Gas Metal Arc Welding Training (1) (8 week course)**

**Prerequisite:** Welding Technology 100 or 101.

Gas metal arc welding theory and practice covering welding to standards set by I-CAR and the American National Standards Institute in preparation for qualification and certification. May be taken for grades or on a credit-no credit basis. One hour lecture, four hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 215AD—Advanced Arc and Oxy-acetylene (1-2)**

**Prerequisite:** Welding Technology 200, 201, or concurrent enrollment.

A laboratory course to develop skills in arc, oxy-acetylene, GTAW and GMAW welding. Three to fifty-four hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 220—Welding Specifications and Codes (2)**

Codes and specifications used by governmental agencies and industry in control of products and production. Two hours. **Transfer Credit: CSU.**

**Welding Technology 230—Welding Metallurgy (3)**

Basic metallurgy as applied to welding, metal structures, strength of material. Weld ability of metals, heat treatment, welding procedures, welding stresses and control. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

**Welding Technology 250AD—Pipe Welding and Advanced GTAW (3)**

**Prerequisite:** Welding Technology 200 or 201.

Shielded metal-arc, gas shielded arc, certification requirements, layout and assembly pipe to pipe and pipe to fittings. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

**Welding Technology 255AD—Orbital Welding (1.5) (8 week course)**

**Prerequisite:** Welding Technology 100 or 101.

Advanced welding theory and practice covering the process of gas tungsten arc welding using an automatic orbital welding system. Instruction includes safety, equipment use, and certification requirements. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

## UC CREDIT LIMITATIONS

**HONORS COURSE CREDIT LIMITATION:** Duplicate credit will not be awarded for both the honors and regular versions of a course. Credit will only be awarded for the first course completed with a grade of C or better.

**AMERICAN STUDIES** 100 and **POLITICAL SCIENCE** 180(or 180H): maximum credit, one course.

**ARCHITECTURAL TECHNOLOGY** 110, 115, 205, 215, 290(or 296), ART 110, 120(or 120H): any or all of these courses combined - maximum credit, 18 units.

**ARCHITECTURAL TECHNOLOGY** 290 and 296: maximum credit, one course.

**BIOLOGY** 100: no credit if taken after 181.

**BIOLOGY** 220(or 220H), 221, 225(or 225H): maximum credit, two courses.

**BUSINESS** 110 and 115: maximum credit, one course.

**CHEMISTRY** 100/100L, 101, 110, 130: maximum credit, one course.

**CHEMISTRY** 100, 100L, 101, 110, 130: no credit if taken after 180.

**DANCE** 106AB, 108AD, 128AD, 135AD, 195AD, 203AD, 208: limit with Physical Education Activities and Marine Activities to a maximum of four units.

**DRAFTING** 150AB: maximum credit, one course.

**ECOLOGY** 110 and **MARINE SCIENCE** 185: maximum credit, one course.

**ECONOMICS** 100: no credit if taken after 180 or 185

**ENGLISH** 121AD, 122AD, 126AD, 127AD: maximum credit, two courses from each series.

**ENGLISH AS A SECOND LANGUAGE** 160AB, 199AC: any or all of these courses combined - maximum credit, 8 units.

**FILM** 110 and 240: maximum credit, one course.

**GEOLOGY** 100(or 100H) and 100L(or 100LH): if concurrently enrolled in or taken after 180, no credit.

**HEALTH EDUCATION** 100 and 120: maximum credit, one course.

**HEALTH EDUCATION** 134 - see **PHYSICAL EDUCATION** 134 for credit limitation.

**HISTORY** 100, 170(or 170H) and 175(or 175H): maximum credit, two courses.

**HISTORY** 178, 175(or 175H), 179 combined: maximum credit, two courses.

**HUMANITIES** 110A and 110B: both must be taken for credit to be granted.

**Independent Study, Directed Study, Selected Topics, Current Topics etc.** - The granting of transfer credit for courses of this kind is contingent upon a review of the course outline by a UC campus after transfer.

**MARINE ACTIVITIES** - UC grants a maximum of 4 total units for Physical Education Activities, Marine Activities and some Dance classes.

**MARINE SCIENCE** 185 and **ECOLOGY** 110: maximum credit, one course.

**MATHEMATICS** 104 and 106: maximum credit, one course.

**MATHEMATICS** 130 and 170 - maximum credit, 4 units.

**MATHEMATICS** or (180H) and 182H: maximum credit, one course.

**MATHEMATICS** 160(or 160H) and **PSYCHOLOGY** 160: maximum credit, one course.

**MATHEMATICS** 185(or 185H) and 182H: maximum credit, one course.

**MUSIC** 115: no credit if taken after 180.

**NATURAL SCIENCE** 100, 105 and 106: maximum credit, 6 units. No credit for **NATURAL SCIENCE** 100 if taken after a college level physical or biological science course.

**NATURAL SCIENCE** 105: no credit if taken after a college level Physical Science course.

**NATURAL SCIENCE** 106: no credit if taken after a college level Biological Science course.

**NATURAL SCIENCE** 112: no credit if taken after a college level course in Astronomy or Physics.

**ORNAMENTAL HORTICULTURE** 181 and 182: maximum credit, one course.

**PHYSICAL EDUCATION ACTIVITIES** - UC grants a maximum of 4 total units for Physical Education Activities, Marine Activities and some Dance classes.

**PHYSICAL EDUCATION THEORY – HEALTH EDUCATION** 134, **PHYSICAL EDUCATION** 134, 274 and 281: maximum credit, 8 units.

**PHYSICS** 110/111: no credit if taken after 120, 130 or 185.

**PHYSICS** 120/125, 130/135, 185/280/285: maximum credit, one series.

**POLITICAL SCIENCE** 180(or 180H) and **AMERICAN STUDIES** 100: maximum credit, one course.

**PSYCHOLOGY** 110 and 220: maximum credit, one course.

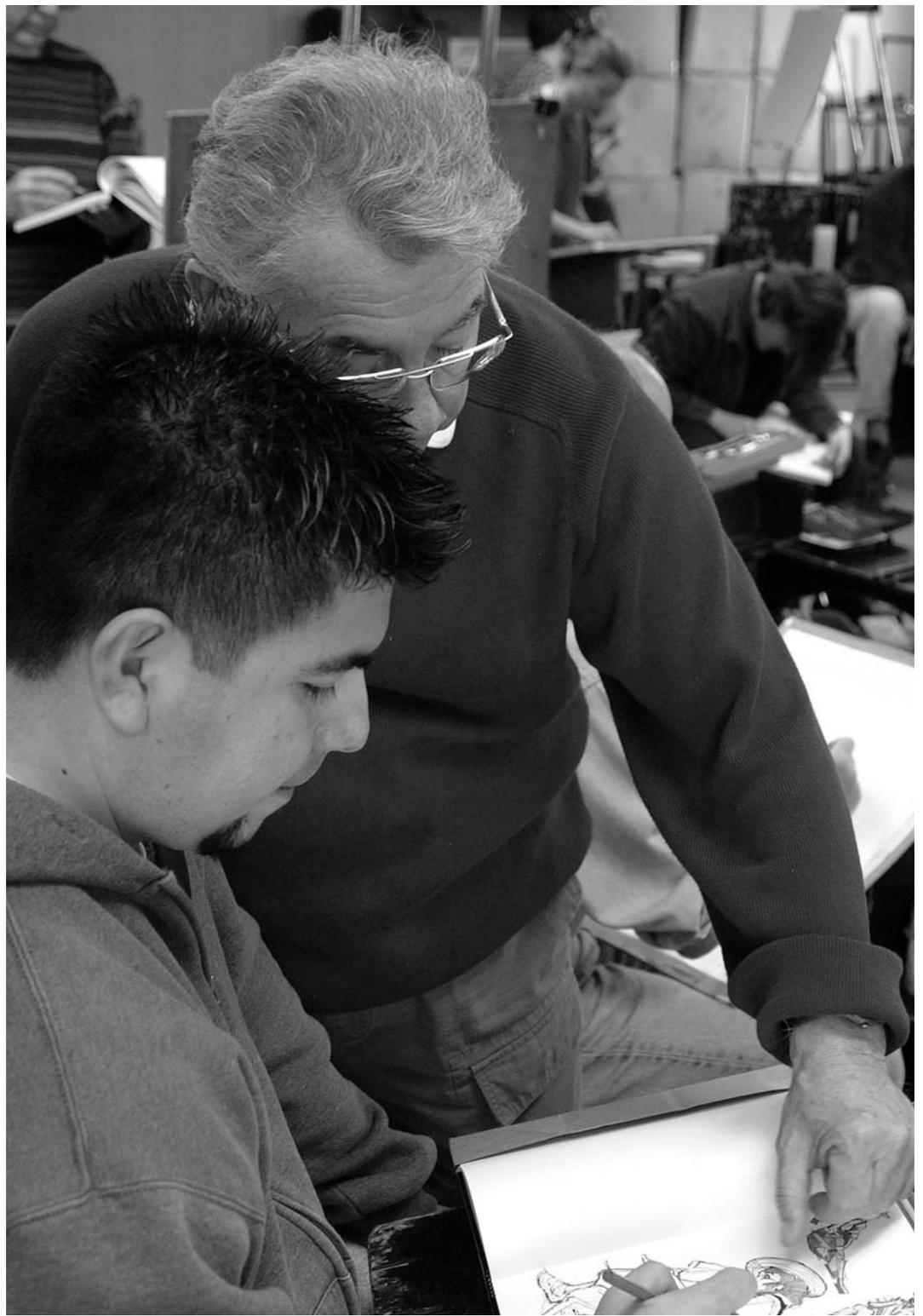
**PSYCHOLOGY** 160 and **MATHEMATICS** 160(or160H): maximum credit, one course.

**PSYCHOLOGY** 165, **SOCIOLOGY** 165, **PSYCHOLOGY** 175 and **SOCIOLOGY** 175: maximum credit, one course.

**SPANISH** 185(or 185H) and 260: maximum credit, one course.

**SPEECH COMMUNICATION** 130 and 140: maximum credit, one course.

**THEATRE ARTS** 100 and 101: maximum credit, one course.



## **FACULTY**

**ADAN, AMINA (1992)**

Professor, History  
B.A., Arizona State University  
M.A., University of California, Los Angeles

**ADELMANN, DANIEL (1980)**

Professor, Allied Health/Respiratory Care  
A.A., Orange Coast College  
B.S. California State University, San Diego  
M.Ed., California State University, Long Beach  
M.S., National University

**AKERS, THOMAS M. (1975)**

Professor, English  
B.A., M.A., California State University, Fullerton

**ALTOBELLI, JOHN E. (1993)**

Assistant Professor, Physical Education and Athletics;  
Head Coach, Baseball  
B.S. University of Houston  
M.A., Azusa Pacific

**ALVES, MITCHELL A. (2001)**

Assistant Professor, Mathematics  
B.S., University of California, Irvine  
M.A., California State University, Fullerton

**AMARAL, CHRISTINA L. (1985)**

Professor, Fashion  
A.A., Orange Coast College  
B.A., California Polytechnic State University, San Luis Obispo  
M.A., California State University, Long Beach

**APPEL, MATTHEW (2005)**

Instructor, Chemistry  
B.S., California Polytechnic State University, San Luis Obispo  
M.S., Ph.D., University of California, Irvine

**ARFSTEN, PATRICIA E. (1974)**

Professor, Counseling Services  
A.A., Santa Rosa Junior College  
B.A., M.S., San Jose State University

**ARISMENDI-PARDI, EDUARDO "EDDIE" (1991)**

Professor, Mathematics  
A.A., Cerritos College  
B.A., California State University, Long Beach  
M.S., West Coast University  
Ed.D., Nova Southeastern University

**ARNOLD, HERRICK F. (1969)**

Professor, Political Science/History  
A.B., M.A., J.D., University of California, Los Angeles

**ATTORE, LOIS SHAFQAT (1979)**

Professor, Psychology  
B.S., University of Tennessee  
M.A., Chapman University  
Ph.D., United States International University

**AVETISIAN, SONIA (2000)**

Associate Professor, Mathematics  
A.A., Rio Hondo College  
B.A., M.S., California State University, Los Angeles

**BAGATOURIAN, LINDA (2002)**

Instructor, Counseling Services  
B.S., University of California, Irvine  
M.A., Chapman University

**BAKER, CHERRY L. (2001)**

Assistant Professor, Biology  
B.A., M.A., California State University, Fullerton

**BANDARUK, THEODORE W. (1971)**

Professor, Biology  
B.S., M.S., University of California, Irvine

**BANOCZI, WALTER R. (1996)**

Professor, Neurodiagnostic Technology  
A.A., Orange Coast College  
B.V.E., California State University, Long Beach

**BARBER, WILLIAM B. (1990)**

Associate Professor, Culinary Arts  
A.O.S., Culinary Institute of America (New York)

**BARNARD, DONNA (1995)**

Professor, English  
B.A., M.A., California State University, Long Beach

**BARNES, CAROL E. (1985)**

Professor, Counseling Services  
A.A. Coastline Community College  
B.B.A., University of Wisconsin  
M.A., Ph.D., Michigan State University

**BARTON, LAURIE (1999)**

Associate Professor, English as a Second Language  
B.A., Mills College  
M.S., California State University, Fullerton

**BARVARZ, PARNIAN (1999)**

Associate Professor, Computer Information Systems  
B.A., M.S., California State University, Fullerton

**BEARD, DANIEL R. (1975)**

Professor, Food Service Management/Business Education  
B.A., Washington State University  
M.B.A., California State University, Fullerton

**BEAU, LESLIE (2006)**

Instructor, Business  
B.A., California State University, Fullerton  
M.B.A., Pepperdine University

**BEHR, LAURA (2005)**

Instructor, Women's Crew Coach  
B.A., Purdue University  
M.S., University of Wisconsin

**BELCHER, MARY J. (1985)**

Professor, Early Childhood Education  
A.A., East Los Angeles College  
B.A., M.A., California State University, Los Angeles

**BELLAH, GEOFFREY (1991)**

Professor, English  
B.A., Tulane University  
M.A., University of South Carolina

**BENDER, EDWARD ERIK (1995)**

Associate Professor, Geology  
B.S., Rider University (New Jersey)  
M.S., Vanderbilt (Tennessee)  
Ph.D., University of Southern California

**BERTA, MELISSA (2005)**

Instructor, Mathematics  
A.S., College of the Canyons  
B.A., California State University, Northridge  
M.S., University of Nebraska-Lincoln

**BISE, ROBERT G. (1965)**

Professor, Economics  
A.A., Ventura College  
B.S., M.B.A., University of California, Los Angeles  
Ph.D., Claremont Graduate School

**BLAIR, JAMIE M. (1987)**

Professor, Mathematics  
B.A., M.A., California State University, Long Beach

**BLOOMFIELD, LISA (1999)**

Assistant Professor, Digital Media Arts and Design  
B.A., University of California, Berkeley  
M.F.A., California Institute of the Arts

**BREECE, WILLIAM H. (1991)**

Professor, Anthropology  
*B.A., California State University, Long Beach*  
*M.A., Ph.D., University of California, Los Angeles*

**BROOKS, JONATHAN (2005)**

Instructor, Sociology and Cultural Anthropology  
*B.A., California State University, San Bernardino*  
*M.A., Ph.D., University of California, Riverside*

**CABANEL-BLEUER, DENISE A. (1999)**

Assistant Professor, Spanish  
*B.A., M.A., University of California, Davis*

**CABRAL, MARTA R. (2001)**

Associate Professor, Counseling Services  
*B.A., M.A., St. John's University, New York*

**CAMPBELL, LAURIE A. (1997)**

Associate Professor, Early Childhood Education  
*M.A., California State University, Long Beach*  
*B.S., California State University, Fullerton*

**CARLSON, N. RAVIN (1999)**

Assistant Professor, Construction Technology  
*A.A., Rancho Santiago College*  
*A.A., A.S., Saddleback College*

**CARROLL, KATHLEEN "KAT" (1985)**

Professor, Speech  
*A.A., Long Beach City College*  
*B.A., M.A., California State University, Long Beach*

**CASADOS, VICTOR G. (1967)**

Professor, Art  
*A.A., Bakersfield College*  
*B.P.A., The Art Center College of Design*  
*B.F.A., M.F.A., Otis Art Institute*

**CASTANO, ROBERT R. (1991)**

Professor, Electronics Technology  
*B.A., California State Polytechnic University, Pomona*

**CHARDONNAY, CAROLE (1974)**

Professor, Music  
*B.A., San Diego State University*  
*M.Mus., University of Southern California*

**CLARK, GREGORY D. (1998)**

Associate Professor, Leadership  
 Studies/Management  
*M.A., Chapman University*  
*B.A., University of California, Davis*  
*Ed.D., University of Southern California*

**CLARK, LINDA S. (1986)**

Professor, Early Childhood Education  
*B.A., University of California, Los Angeles*  
*M.S., National University*

**COATY, PATRICK (1999)**

Associate Professor, Political Science/History  
*B.S., University of Wisconsin-Madison*  
*M.A., Ph.D., Claremont Graduate School*

**COCO, FELICIA J. (2001)**

Assistant Professor, Speech  
*B.A., M.A., California State University, Long Beach*

**COLVIN, DIANE (1994)**

Professor, English as a Second Language  
*B.A., California State University, Long Beach*  
*M.A., School for International Training (Vermont)*

**CONGLETON, JOHN R. (2002)**

Instructor, Chemistry  
*B.A., M.S., University of California, San Diego*

**CONNER, GREGORY (1990)**

Professor, English as a Second Language  
*A.A., Los Angeles Harbor College*  
*B.A., California State University, Long Beach*  
*M.A., California State University, Fullerton*

**CONTOPOULOS, NICHOLAS (1991)**

Professor, Astronomy  
*A.S., Merritt College*  
*B.S., California State University, Hayward*  
*M.S., San Diego State University*

**COOPER, BARBARA (1986)**

Associate Professor, Food Service Management  
*A.A., Orange Coast College*  
*B.S., California State University, Long Beach*  
*M.S., National University*

**CORLEY, CYNTHIA C. (1997)**

Associate Professor, Theatre Arts  
*B.A., University of California, Irvine*  
*M.A., University of Exeter (England)*

**CORTEZ, JOSE O. (1999)**

Professor, Machine Technology  
*B.A., M.A., California State University, Long Beach*

**COSTAS, JOSE (1999)**

Associate Professor, Dance  
*B.S., M.Ed., Catholic University of Puerto Rico*  
*M.F.A., Tisch School of the Arts, New York University*

**COX, OLGA PEREZ-STABLE (1974)**

Associate Professor, Psychology  
*B.A., California State University, Fullerton*  
*M.A., Chapman College*

**COX, STEVEN J. (2001)**

Assistant Professor, Art  
*B.A., M.A., California State University, Fullerton*

**CUELLAR, ERIC (1999)**

Associate Professor, Counseling Services  
*B.A., M.Ed., University of San Diego*

**CUTENESE, CHARLES J. (1999)**

Assistant Professor, Physical Education & Athletics;  
 Head Coach, Men's & Women's Volleyball  
*A.A., Orange Coast College*  
*B.A., California State University, Fullerton*  
*M.Ed., Azusa Pacific University*

**DANIEL, SHARON CALLAWAY (1973)**

Professor, Biological Sciences  
*B.S., M.S., California State Polytechnic University,  
 Pomona*

**DANZIGER, LESLEY (1990)**

Professor, English  
*B.A., University of Sussex (England)*  
*M.S., California State University, Fullerton*  
*M.A., University of California, Irvine*

**DAVIS, KAREN (1997)**

Associate Professor, Mathematics  
*B.A., M.S., California State University, Long Beach*

**DELLA MARNA, JODI (1997)**

Professor, Librarian  
*B.A., California State University, Fullerton*  
*M.L.S., University of California, Los Angeles*  
*M.A., California State University, Dominguez Hills*

**DENTON, BOB C. (1968)**

Professor, Mathematics  
*B.S., M.A., California State University, Los Angeles*

**DeSURRA, CHRISTOPHER (1999)**

Assistant Professor, Speech  
*B.A., M.A., San Diego State University*

**DOWLING, THOMAS J. (2000)**

Professor, Art  
*A.A., Los Angeles Valley College*  
*B.A., University of California, Santa Barbara*  
*M.F.A., University of California, Irvine*

**DREW, RENDELL (2004)**

Instructor, Social and Behavioral Sciences  
*E.D.D., Pepperdine University*  
*M.P.A., National University*  
*B.A., San Diego State University*

**DRUM, STEPHEN M. (2002)**

Instructor, Physics  
*B.S., M.S., University of California, Irvine*

**DUONG, NGHIA V. (1989)**

Professor, Counseling Services  
*M.S., California State University, Fullerton*

**EARICK, DIANNE (1992)**

Associate Professor, English as a Second Language  
*B.A., University of California, Santa Cruz*  
*M.A., California State University, Fullerton*

**ELLIOTT, KELLI (2005)**

Instructor, Biology  
*B.S., San Diego State University*  
*M.S., California State University, Fullerton*

**EVANS, CHRISTOPHER W. (1997)**

Associate Professor, English  
*B.A., M.A., California State University, Long Beach*

**FARIDI, ABBAS M. (1989)**

Professor, Physics  
*B.S., Fairleigh Dickinson University (New Jersey)*  
*Ph.D., New York University*

**FARRELL, DAN (1980)**

Professor, Allied Health/Respiratory Care  
*A.A., Orange Coast College*  
*B.S., University of Redlands*  
*M.A., California State University, Long Beach*

**FELTS, KAREN S. (2000)**

Assistant Professor, English  
*B.S., M.A., University of California, Riverside*

**FIGUEROA, BENJAMIN (1999)**

Associate Professor, Counseling Services  
*A.A., Cerritos College*  
*B.A., California State University, Fullerton*  
*M.S., San Francisco State University*

**FLOWERS, CAROL L. (1977)**

Professor, Business Education  
*B.S., M.S., California State University, Long Beach*

**FOSTER, RODNEY (1991)**

Professor, Aviation Maintenance Technology  
*B.S., Amber University*

**FRICKER, NORMAN C. (1985)**

Assistant Professor, Speech  
*B.A., M.A., California State University, Long Beach*

**FUNEZ-GONZALEZ, JUANI (1991)**

Professor, History  
*B.A., Universidad del Norte (Chile)*  
*M.A., Ph.D., University of California, Irvine*

**GALVERY, WILLIAM L. (1993)**

Professor, Welding Technology  
*A.A., Orange Coast College*  
*B.V.E., California State University, Long Beach*

**GARRISON, TOM S. (1969)**

Professor, Marine Science  
*B.S., University of Utah*  
*M.A., California State University, San Diego*  
*Ph.D., University of Southern California*

**GAYTAN, DONOVAN H. (1991)**

Associate Professor, English  
*B.A., M.A., California State University, Los Angeles*

**GILBERT, STEPHEN D. (1997)**

Associate Professor, Computer Science  
*B.S., California State University, Long Beach*  
*M.S., Azusa Pacific University*

**GLEASON, DAVID (1978)**

Associate Professor, Physical Education and Athletics  
*A.A., Orange Coast College*  
*B.A., University of California, Berkeley*

**GOETZ, STEVEN J. (1989)**

Professor, Counseling Services  
*B.A., M.A., University of California, Irvine*

**GOLDEN, JILL (1999)**

Assistant Professor, Food and Nutrition  
*B.A., California State University, San Jose*  
*M.S., California State University, Long Beach*

**GOLDMANN, TAMAR T. (1985)**

Professor, English as a Second Language  
*B.A., M.A., University of California, Los Angeles*

**GOLSON, CHRISTOPHER "RICK" (1990)**

Associate Professor, Theatre Arts  
*A.A., Orange Coast College*  
*B.A., University of California, Santa Cruz*  
*M.A., San Francisco State University*

**GOLSON, D. ALEXANDER (1986)**

Professor, Theatre Arts  
*B.A., California State University, Fullerton*  
*M.F.A., University of California, Irvine*

**GONZALES, SHIRLEY L. (1993)**

Assistant Professor, Chemistry  
*B.S., Ph.D., University of California, Irvine*

**GORDON, LEE W. (1989)**

Assistant Professor, Business Education  
*B.S., M.A., Indiana University*

**GOSHERT, DAVID F. (1977)**

Professor, Business Education  
*B.S., M.B.A., University of California, Los Angeles*

**GOULD, BRIAN (1995)**

Professor, Music  
*B.A., University of California, Irvine*  
*M.M., D.M.A., University of Southern California*

**GUERRA, ARNOLD, III (2002)**

Instructor, Physics  
*M.S., Ph.D., University of California, Irvine*

**GUILLEN, ALEX (1989)**

Professor, Counseling Services  
*B.A., California State University, Long Beach*  
*M.S., California State University, Fullerton*

**HALL, WILLIAM S. (1991)**

Professor, Film/Video  
*B.S., San Diego State University*

**HANLON, ANNA (2003)**

Instructor, Physical Education and Athletics  
*B.S., M.S., California State University, Fullerton*

**HARLOW, RICHARD (2005)**

Instructor, Ornamental Horticulture  
*B.S. California State Polytechnic University, Pomona*

**HARMER, ANN TONN (1978)**

Professor, Biological Sciences  
*B.A., Wichita State University*  
*B.S., M.S., California State Polytechnic University, Pomona*

**HASSAPIS, PHYLCIA (2003)**

Instructor/Coordinator, Emergency Medical  
Technology  
B.A., National University

**HAYES, LAIRD (1976)**

Professor, Physical Education and Athletics;  
Head Coach, Men's Soccer  
A.B., Princeton University  
M.Ed., Ed.D., University of California, Los Angeles

**HAYWARD, VALERIE J. (1989)**

Professor, Mathematics  
B.A., M.A., California State University, Long Beach

**HEARLSON, KENNETH W. (1980)**

Assistant Professor, Political Science  
A.A., Cypress College  
B.A., California State University, Long Beach  
M.P.A., California State University, Fullerton

**HEAVERN, IRENE J. (1991)**

Professor, English  
B.A., M.A., Chapman University

**HENRY, LORRAINE A. (1985)**

Professor, Radiologic Technology  
A.S., Long Beach City College  
B.V.E., M.A., California State University, Long Beach

**HEWITT, ARLENE (1997)**

Assistant Professor, Chemistry  
B.A., University of Hawaii  
M.S., California State University, Fullerton

**HIDDEN, MARTA L. (2001)**

Professor, Mathematics  
B.A., M.A., California State University, Sacramento

**HOFFMAN, GARY S. (1971)**

Professor, English  
B.A., M.A., University of California, Los Angeles

**HOFFMAN, GLYNIS (1997)**

Associate Professor, English  
B.A., M.A., California State University, Fullerton

**HOGUE, STEVEN (2000)**

Assistant Professor, Aviation Maintenance  
Technology  
A.A., A.S., Mt. San Antonio College  
B.S., California State University, Los Angeles

**HOLLANDER, GENA A. (1999)**

Associate Professor, Anthropology/Sociology  
B.A., Queens College (New York)  
M.A., California State University, Fullerton

**HUANG, ELEANOR B. (1976)**

Professor, Dietetic Technology  
B.S., University of Massachusetts  
M.S., Columbia University

**HUNTER, AMELIE F. (2001)**

Assistant Professor, Dance  
B.A., M.A., University of California, Los Angeles  
M.F.A., Tisch School of the Arts, New York University

**HUTCHISON, RICHARD J. (1999)**

Assistant Professor, Welding Technology  
A.A., Cerritos College  
B.V.E., California State University, Long Beach

**ISAAC, DARRYL (1995)**

Associate Professor, Cardiovascular  
Technology  
B.A., University of California, Irvine

**JACKSON, NICOLETTE A. (1989)**

Professor, Counseling Services  
B.A., M.S., California State University, Long Beach

**JENNINGS, DONALD (1974)**

Professor, Fine Arts/Ceramics  
B.A., M.A., California State University, Los Angeles

**JORGENSEN, JAMES C. (1973)**

Professor, Physical Education and Athletics; Head  
Coach, Sailing  
A.A., Orange Coast College  
B.A., University of California, Los Angeles  
M.S., California State University, Fullerton

**JUPITER, CHERYL (1990)**

Professor, Counseling Services;  
Director, Transfer Center  
B.A., University of California, Irvine  
M.S., California State University, Long Beach

**KAGAWA, AKEMI (1999)**

Assistant Professor, Japanese  
B.A., M.A., California State University, Los Angeles  
M.A., University of Southern California

**KAMPHUIS, JACQUELINE A. (1999)**

Assistant Professor; Coordinator, Tutorial Center  
B.A., M.A., California State University, Long Beach

**KARASUDA, SHIN (1973)**

Professor, Computer Science  
B.A., M.S., University of California, Los Angeles

**KATSUKI, ANNA (1994)**

Professor, Counseling Services  
B.A., California State University, Long Beach  
M.S., University of La Verne

**KATZ, ELEANOR F. (Mrs.) (1971)**

Professor, Philosophy/Humanities  
A.B., Randolph-Macon College (Virginia)  
M.A., Ph.D., Claremont Graduate University

**KEEGAN, DIANE (1985)**

Professor, Counseling Services  
B.A., Kean College  
M.S., Indiana University

**KEESLER, KATHLEEN (1995)**

Associate Professor, English as a Second Language  
B.A., Whittier College  
M.S., California State University, Fullerton

**KEITH, ARLETE BEATRIZ (2005)**

Instructor, Spanish  
B.A., M.A., University of California, Irvine

**KELLY, DARLA E. (1989)**

Professor, Biology  
A.A., Fullerton College  
B.S., California State University, Long Beach  
M.A., California State University, Fullerton

**KELLY, DENNIS L. (1974)**

Professor, Marine Science  
A.A., Fullerton College  
B.A., M.A., California State University, Fullerton

**KELLY, MARILYN N. (1988)**

Associate Professor, History/Humanities  
B.A., Butler University  
M.A., San Diego State University

**KENNEDY, MARILYN J. (1999)**

Associate Professor, English  
A.A., Cypress College  
B.A., California State University, Long Beach  
M.A., California State University, Fullerton

**KENNEDY, PATRICK (1998)**

Professor, English  
B.A., California State University, Long Beach

**KHAMNEIAN, HAEDAH (1991)**

Associate Professor, Mathematics  
B.S., M.S., University of California, Irvine

**KINGS, ROSE ANNE (2000)**

Assistant Professor, Architecture  
B.Arch., California Polytechnic State University,  
San Luis Obispo

**KIRCH, STACY K. (2001)**

Assistant Professor, Counseling Services  
B.A., Concordia University  
M.S., California State University, Long Beach

**KNOX, JOHN A. (2001)**

Assistant Professor, Physical Education and  
Athletics;  
Head Coach, Cross Country; Men's & Women's  
Track & Field  
A.A., Orange Coast College  
B.A., California State University, Long Beach  
M.Ed., Azusa Pacific University

**KOFF, SHEILA S. (1985)**

Professor, English  
B.A., M.A., California State University, Fullerton

**KOINES, ANDREW J. (2001)**

Associate Professor, Mathematics  
B.A., University of California, Berkeley  
M.S., Ph.D., University of California, Irvine

**KRAFT, RICHARD J. (2002)**

Instructor, Photography  
B.F.A., Parsons School of Design  
M.F.A., University of Michigan

**KRYDER, NANCY G. (1973)**

Professor, Biology/Natural Science  
B.S., Arizona State University  
M.A., University of California, Los Angeles

**KUBIAK, RENEE C. (2000)**

Associate Professor, Interior Design  
B.A., California State University, Long Beach  
M.S.D., Arizona State University

**KUCHECK, WENDY "RIKI" S. (1982)**

Professor, Mathematics  
A.A., Saddleback Community College  
B.A., M.A., California State University, Fullerton  
M.S., University of Southern California

**KUNZLER-YETT, BETIL (1989)**

Professor, Anthropology  
A.S., Cypress College  
B.A., M.A., California State University, Fullerton

**LA MER, EMMA GRACE (1992)**

Assistant Professor, Speech  
B.S., M.A., Arizona State University

**LATTANZIO, STEPHEN P. (1975)**

Professor, Astronomy/Natural Science  
A.B., University of California, Berkeley  
M.A., University of California, Los Angeles

**LAUX, JOHN M. (2000)**

Assistant Professor, Chemistry  
B.S., Pacific Lutheran University  
Ph.D., University of California, Irvine

**LAWELL, CHERI L. (2001)**

Assistant Professor, Fashion  
B.A., California State Polytechnic University, Pomona  
M.B.A., National University

**LAZARUS, ROBERT (2000)**

Associate Professor, Film/Video  
B.A., California State University, Fullerton

**LEE, KELLY J. (2002)**

Instructor, Counseling Services  
B.S., University of California, Riverside  
M.A., Chapman University

**LEIGH, MICHAEL G. (1976)**

Professor, Speech  
B.A., M.A., University of Redlands  
M.A., University of Southern California

**LENANTON, JOHN (1970)**

Professor, Ornamental Horticulture  
DIP Educ., DIP Hort., Culham College (England)  
B.S., M.S., University of California, Davis

**LERMA, MARIA DEL PILAR (1993)**

Professor, English as a Second Language  
B.A., University of Southern California  
M.A., California State University, Long Beach

**LEVINE, JOEL M. (1985)**

Professor, Physics  
B.S., Case Western Reserve University  
M.A., California State University, Long Beach

**LEWIS, BRIAN (1970)**

Professor, Film/Video  
A.A., Orange Coast College  
B.A., M.A., California State University, San Francisco

**LIVINGSTON, TAB L. (1997)**

Associate Professor, Mathematics  
B.A., University of Central Florida  
M.A., California State University, Fullerton

**LOHMAN, BENJAMIN J. (2001)**

Assistant Professor, Speech  
B.S., Bradley University, Illinois  
M.F.A., Chapman University

**LOREN, DAVI (2001)**

Associate Professor, English  
B.A., M.A., California State University, Northridge  
M.F.A., University of California, Irvine

**LUCKRING, EVE (1999)**

Associate Professor, Photography  
B.A., University Of Delaware  
M.F.A., University of California, Los Angeles

**MAHER, DEBORAH A. (1999)**

Associate Professor, Psychology  
B.A., M.A., University of California, Riverside  
Ph.D., University of California, Riverside

**MALATY, MARTHA (1998)**

Professor, Computer Science  
B.S., M.S., Ain Shams University (Egypt)  
Ph.D., University of Dortmund (Germany)

**MARAN, JANICE C. (1976)**

Professor, Physical Education and Athletics;  
Head Coach, Women's Tennis  
A.A., Pasadena City College  
B.A., M.A., California State University, Los Angeles

**MARCINA, VESNA (2002)**

Instructor, Political Science  
B.A., California State University, Long Beach  
M.A., Ph.D., University of California, Santa Barbara

**MARRON, ELIAS (1995)**

Assistant Professor, Counseling Services  
B.A., California State University, Fullerton  
M.S., California State University, Dominguez Hills

**MASON, DOUGLAS (1974)**

Professor, History  
B.A., M.A., University of California, Santa Barbara  
M.L.S., University of California, Los Angeles

**MAUGHAN, HELEN (2000)**

Assistant Professor, Chemistry  
*B.A., Glassboro State College (New Jersey)*  
*M.A., University of Southern California*

**MAURER, ERNEST W. (1977)**

Professor, Aviation and Space  
*A.A., Cuyahoga Community College*  
*B.S., M.A., Kent State University*  
*Ph.D., University of California, Los Angeles*

**McCALL, LESLIE K. (2001)**

Assistant Professor, Photography  
*A.A., Cypress College*  
*B.F.A., Art Center College of Design*

**McCLANAHAN, ANNE (2001)**

Assistant Professor, Speech-Language  
 Pathology Assistant  
*B.A., M.A., California State University, Fullerton*

**McCLURE, WILLIAM C. (1987)**

Associate Professor, Mathematics  
*A.A., Santa Monica College*  
*B.A., University of California, Los Angeles*  
*M.S., California State University, Northridge*

**McCOMB, HELEN (1984)**

Professor, History/Humanities  
*B.A., M.A., University of California, Santa Barbara*

**MELROSE, CHARLENE TICHY (1972)**

Professor, Psychology  
*B.S., Washington State University*  
*M.S., California State University, San Diego*

**MILLIKIN, E. DOUGLAS (1984)**

Professor, Mathematics  
*M.S., M.S., Ohio State University*  
*B.S.M.E., General Motors Institute*

**MONAHAN, GEORGIE H. (1989)**

Associate Professor, Speech  
*B.A., M.A., California State University, Long Beach*

**MOORE, ART (1984)**

Professor, Mathematics  
*A.B., M.A., University of California, Berkeley*

**MOORE, GREGORY A. (2001)**

Assistant Professor, Mathematics  
*A.A., El Camino College*  
*B.A., University of California, Los Angeles*  
*M.A., Cornell University*

**MORGAN, CARL (1991)**

Professor, Librarian  
*B.A., California State University, San Bernardino*  
*M.L.S., San Jose State University*

**MORGAN, DENNIS L. (1999)**

Associate Professor, Business Education  
*A.A., El Camino College*  
*B.S., California State University, Dominguez Hills*  
*M.B.A., California State University, Long Beach*

**MUCCIARO, THOMAS P. (1999)**

Professor, Chemistry  
*A.B., Occidental College*  
*Ph.D., Stanford University*

**MUELAS, MARI-AALA (2005)**

Instructor, Spanish  
*B.A., M.A., University of California, Los Angeles*

**MUIR, ROBERT (1999)**

Associate Professor, Mathematics  
*B.S., California State Polytechnic University, Pomona*  
*M.S., University of California, Irvine*

**MURPHY, TIMOTHY G. (2000)**

Assistant Professor, Computer Information Systems  
*B.A., M.A., California State University, Long Beach*

**MUSHKIN, HILLARY D. (2000)**

Assistant Professor, Digital Media Arts and Design  
*B.F.A., Rhode Island School of Design*  
*M.F.A., University of California, Irvine*

**MYERS, KEVIN A. (1999)**

Associate Professor, Fine Arts/Ceramics  
*B.F.A., M.F.A., Otis College of Art and Design*

**NAESSE, IRENE E. (2001)**

Assistant Professor, Geography  
*B.A., M.A., San Diego State University*

**NAUTA, DALE M. (1990)**

Professor, Mathematics  
*B.A., California State University, Long Beach*  
*M.A., California State University, Fullerton*

**NAVIDAD, APOLINARIO (2005)**

Instructor, Music  
*B.A., M.A., California State University, Long Beach*

**NGUYEN, JESSICA L. (2000)**

Assistant Professor, Counseling Services  
*M.A., California State University, Dominguez Hills*

**NGUYEN, SO VAN (1992)**

Professor, English as a Second Language  
*B.A., Saigon University*  
*M.A., University of California, Los Angeles*

**NORLING, MARCELLA L. (1982)**

Professor, Religious Studies  
*B.A., University of California, Santa Barbara*  
*M.A., National University*

**NUDELMAN, JACK (1980)**

Assistant Professor, Electronics Technology/Avionics  
*A.A., New York City Community College*

**OBSTFELD, LORETTA (2005)**

Instructor, English  
*B.A., California State University, Long Beach*  
*M.F.A., Chapman University*

**OBSTFELD, RAYMOND (1976)**

Associate Professor, English  
*B.A., Johnston College*  
*M.A., University of California, Davis*

**OCHOA, MARCO (2002)**

Instructor, Physical Education and Athletics  
*B.A., M.A., Adams State College (Colorado)*

**O'CONNOR, ROBIN A. (2003)**

Instructor, Physical Education and Athletics  
*B.S., York University, Toronto, Canada*  
*M.A., California State University, Long Beach*

**OLDS, MICHAEL V. (1983)**

Professor, Economics  
*B.A., Princeton University*  
*M.A., M.A.L.D., Tufts University*

**OVIATT, VINTA M. (1997)**

Professor, Librarian  
*B.A., M.A., California State University, Long Beach*  
*M.L.S., University of Southern California*

**OWINGS, MARGARET INEZ (1986)**

Professor, Art  
*B.A., Scripps College*  
*M.F.A., California State University, Long Beach*

**PARKER, KENNETH (2005)**

Instructor, English  
*B.A., M.F.A., Saint Mary's College*

**PARKER, P. KEVIN (1996)**

Associate Professor, English  
A.A., A.S., Saddleback Community College  
B.A., University of California, Irvine  
M.A., University of Missouri

**PERKINS, MARC C. (2002)**

Instructor, Biological Sciences  
B.S., Harvey Mudd College  
M.S., Arizona State University

**PETERS, TIMOTHY (1999)**

Assistant Professor, Construction Technology  
Vocational Equivalency

**PETTUS, CANDICE (2001)**

Assistant Professor, Anthropology/Sociology  
A.A., Orange Coast College  
B.A., M.A., California State University, Fullerton

**PHAN, DAT HUY (1985)**

Professor, Counseling Services  
B.A., B.Ed., University of Saigon  
M.A., San Diego State University  
J.D., Western State University

**PHILLIPS, CLYDE H. (1993)**

Assistant Professor, Counseling Services  
B.A., M.S., California State University, Long Beach

**POSHEK, JOSEPH E. (1999)**

Associate Professor, Music  
B.A., Macalester College (Minnesota)  
B.Mus., M.Mus., Manhattan School of Music

**RAGENOVICH, CHRISTINE (1989)**

Professor, Political Science  
B.A., Occidental College  
M.L.S., University of California, Los Angeles  
M.P.A., California State University, Long Beach

**RAILEANU, LIA (1999)**

Instructor, French  
M.A., University of Iassy, Romania

**RAYA, ROBERT A. (1976)**

Professor, History/American Studies  
A.A., East Los Angeles College  
B.A., M.A., California State University, Los Angeles

**REBER-BONHALL, CYNTHIA (2005)**

Instructor, Diagnostic Medical Sonography  
A.A., Orange Coast College  
B.S., Weber State University

**RICKERSON, IRINI (1990)**

Professor, Art  
Doctorate, Florence University (Italy)

**RING, DAVID C. (1999)**

Professor, Philosophy  
B.A., Cornell University  
M.A., Ph.D., University of Wisconsin-Madison

**ROBINSON, STEPHEN J. (1974)**

Professor, Fine Arts/Sculpture  
B.A., M.A., California State University, Long Beach

**RODRIGUEZ, DAVID R. (1999)**

Professor, Construction Technology  
A.A., El Camino College  
B.S., California State University, Long Beach

**ROGERS, MARCIA, A. (1997)**

Associate Professor, English  
B.S., Utah State University  
M.Ed., University of Utah

**ROSE, JUDY (1976)**

Professor, Dental Assisting  
A.A., Santa Monica College  
B.S., California State University, Northridge  
M.A., United States International University

**SACHS, LOREN (2004)**

Instructor/Coordinator, Radiologic Technology  
B.A., M.A., California State University, Dominguez Hills

**SAICHEK, WILLIAM M. (2001)**

Professor, Computer Information Systems  
A.A., El Camino College  
B.S., M.S., University of California, Irvine

**SALIBI, NUHA (1992)**

Professor, English as a Second Language  
B.A., Beirut College for Women (Lebanon)  
M.A., American University of Beirut

**SALINGER, JOAN A. (1987)**

Professor, Art/Photography  
B.F.A., University of Michigan  
M.F.A., Cranbrook Academy of Art

**SCANE, DANIELLE**

Instructor, Business  
B.A., Arizona State University  
M.S., Amberton University

**SCHNEIDERMAN, ROBERT (1997)**

Assistant Professor, Counseling Services  
B.S., Arizona State University  
M.A., Chapman University

**SCHRUPP, HAROLD A. (1965)**

Professor, Counseling Services  
B.A., Pacific Lutheran University (Washington)  
M.S., Oregon State University  
Ed.D., University of California, Los Angeles  
J.D., Western State University

**SCOTT, MICHAEL C. (1985)**

Professor, Philosophy  
B.A., M.A., California State University, Long Beach

**SHAJIE, VIDA (1996)**

Professor, Counseling Services  
B.A., PARS College (Iran)  
M.S., California State University, Fullerton

**SHANNON, KEVIN L. (1977)**

Professor, Mathematics  
B.A., University of California, Santa Barbara  
M.A.T., University of California, Los Angeles

**SHINE, BRENDA L. (1993)**

Professor, Hotel Management  
B.A., Southern California College

**SHROCK, CHERYL R. (1990)**

Professor, Computer Aided Design/Drafting  
A.A., West Coast University  
B.S., Pepperdine University

**SIMPSON, MELISSA (2001)**

Assistant Professor, Culinary Arts  
B.S., University of Missouri

**SJULE, GERALD D. (1962)**

Professor, Psychology; Counselor  
B.A., Pasadena College  
M.S., Ph.D., University of Southern California

**SKEIE, LEON (1973)**

Professor, Physical Education and Athletics  
NSCA Certification  
B.S., M.S., Iowa State University

**SLOSBERG, KENNETH (1974)**

Professor, Photography  
B.A., Bowdoin College  
B.F.A., San Francisco Art Institute  
M.F.A., State University of New York, Buffalo

**SMITH, CARL D. (2002)**

Assistant Professor, Physical Education and Athletics  
*B.S., Bowling Green State University*  
*M.S., California State University, Fullerton*

**SMITH, KEVIN (2004)**

Instructor, Special Programs and Services  
*B.A., University of California, Irvine*  
*M.S., National University*

**SMITH, SUSAN L. (1985)**

Professor, History  
*B.S., M.A., Northern Arizona University*

**SMOLIN, JAMES M. (2005)**

Instructor, Psychology  
*B.A., M.A., California State University, Long Beach*  
*Ph.D., Purdue University*

**SOGO, L. FARAH (1999)**

Professor, Biology  
*B.A., University of California, Riverside*  
*Ph.D., University of California, San Diego*

**SOHL-ELLISON, LINDA (1980)**

Professor, Dance  
*B.F.A., Ohio University*  
*M.A., University of California, Los Angeles*

**SOTO, RICARDO (2001)**

Assistant Professor, Music  
*B.A., M.A., California State University, Fullerton*  
*Mus.D., University of Southern California*

**SPENCER, STEVEN (2001)**

Assistant Professor, Physical Education and Athletics  
 Head Coach, Men's Basketball  
*A.A., College of Marin*  
*B.A., Sonoma State University*  
*M.S., California Lutheran University*

**STEADRY, FREDERICK A. (1971)**

Associate Professor, Photography  
*A.B., Harvard College*  
*M.A.T., Harvard University Graduate School of Education*

**STEINFELD, THOMAS E. (1999)**

Associate Professor, Drafting Technology  
*B.A., California State University, Fullerton*

**STORM, SARA (1992)**

Professor, English as a Second Language  
*A.A., Orange Coast College*  
*B.A., California State University, Long Beach*  
*M.A., California State University, Fullerton*

**SUOZZO, JOANNE (1989)**

Professor, English  
*B.A., Northwestern University*  
*M.A., University of Redlands*

**SUZUKI, LORI L. (1989)**

Professor, History  
*B.A., M.A., California State University, Fullerton*

**TARLOS, THERESA (1999)**

Associate Professor, Geography  
*B.A., DePaul University*  
*M.A., Northeastern Illinois University*

**TAYLOR, MICHAEL R. (1991)**

Professor, English/Physical Education and Athletics;  
 Head Coach, Football  
*A.A., Santa Ana College*  
*B.S., Oregon State University*  
*M.A., California State University, Long Beach*

**TENNANT, WAYNE W. (1972)**

Professor, Fine Arts  
*B.F.A., Art Center College of Design*  
*M.A., California State University, Los Angeles*

**TIMMINS, TERRY (1971)**

Professor, Sociology/Anthropology  
*A.A., Orange Coast College*  
*B.A., M.A., California State University, Fullerton*  
*Ph.D., The Fielding Institute*

**VARGA, JOHN L. (1976)**

Professor, Accounting  
*B.S., Villanova University*  
*M.B.A., University of Chicago*

**VOICU, MARIANA C. (2001)**

Assistant Professor, Mathematics  
*B.A., California State University, San Bernardino*  
*M.S., University of California, Irvine*

**WALL, THEODORE E. (1969)**

Professor, Philosophy  
*B.A., University of California, Berkeley*  
*B.D., S.T.M., Drew University*

**WATERS, JOHN J. (1976)**

Associate Professor, Machine Technology  
*B.A., M.A., California State University, Long Beach*

**WATSON, DON, JR. (1989)**

Professor, Physical Education and Athletics;  
 Head Coach, Women's Swimming  
*B.A., California State University, Long Beach*  
*M.Ed., United States International University*

**WATSON, MARYANN (2001)**

Associate Professor, Computer Information Systems  
*A.A., Long Beach City College*  
*B.A., California State University, Long Beach*  
*M.Ed., Azusa Pacific University*

**WEATHERFORD, LEIGH ANN (2001)**

Assistant Professor, English  
*B.A., University of Virginia*  
*M.A., San Diego State University*

**WEBB, DEBBIE K. (1984)**

Associate Professor, Librarian  
*A.A., East Los Angeles College*  
*B.A., California State University, Long Beach*  
*M.L.S., University of Southern California*

**WELLS, STEPHANIE E. (2001)**

Assistant Professor, English  
*B.A., University of California, Berkeley*  
*M.A., University of Virginia*  
*Ph.D., University of California, Davis*

**WENDELL, ROBERT (1973)**

Associate Professor, Art  
*M.F.A., Otis Art Institute*

**WERBLIN, CATHLEEN (1999)**

Assistant Professor, Communications  
*B.A., University of Arizona*

**WESTERMAN, DONNA (1976)**

Professor, Art  
*B.F.A., M.F.A., Otis Art Institute*

**WHEATON, DANA (1991)**

Assistant Professor, Music  
*B.A., California State University, Humboldt*  
*M.A., California State University, Long Beach*

**WHITRIDGE, ROGER A. (1999)**

Associate Professor, Art  
*M.A., California State University, Long Beach*  
*M.F.A., Claremont Graduate School*

**WICKREMESINGHE, MANOJ (2005)**

Counselor, Matriculation/Articulation  
*B.A., University of California, Los Angeles*  
*M.A., California State University, Fullerton*  
*M.A., California State University, Dominguez Hills*

**WILLIS, MARGIE CANFIELD (1975)**

Professor, Allied Health/Medical Assisting  
*A.A., Long Beach City College*  
*B.V.E., California State University, Long Beach*

**WINTER, NICOLAS (1980)**

Associate Professor, English as a Second Language  
*B.S., State University of New York, Cortland*  
*M.A., University of Hawaii*

**WYNNE, ANN M. (1985)**

Professor, History  
*A.A., Bronx College*  
*B.A., Hunter College*  
*M.A., University of Maryland*  
*Ph.D., University of California, Los Angeles*

**YANAGA, RANDALL K. (1986)**

Associate Professor, Mechanical Drafting/Machine  
Technology  
*A.A., College of the Desert*  
*B.A., M.A., California State University, Long Beach*

**YATES, RONALD L. (1985)**

Instructor, Computer Information Systems

**YETT, JAY R. (1984)**

Professor, Geology/Natural Science  
*B.S., University of Idaho*  
*M.S., University of Washington*

**ZELLERBACH, CHARLES (2005)**

Instructor, Business  
*B.A., Williams College*  
*M.B.A., University of Pennsylvania*

**ZHE, ROBERT R. (1989)**

Counselor, Disabled Students  
*B.A., California State University, Long Beach*  
*M.S., California State University, Los Angeles*

**ZITTER, JEREMY A. (2001)**

Assistant Professor, English  
*B.A., M.A., California State University, Long Beach*

**ZOMBEK, MARK S. (1990)**

Professor, Aviation Maintenance Technology  
*A.A., Orange Coast College*  
*B.S.V.E., California State University, Long Beach*

## Medical Advisors for the School of Allied Health Professions

**CONTINO, MICHAEL, M.D.**  
Emergency Medical Technology

**COYNE, BRIAN, M.D.**  
Medical Assisting

**GANDY, JODIE E., M.D.**  
Cardiovascular Technology

**KICIMAN, NAFIZ M., M.D.**  
Cardiovascular Technology

**MCINTYRE, HUGH, M.D.**  
Neurodiagnostic Technology

**STRICH, GIDEON, M.D.**  
Diagnostic Medical Sonography

**SELECKY, PAUL, M.D.**  
Polysomnography  
Respiratory Care



## **Major Clinical Affiliates for the School of Allied Health Professions**

American Heart Association  
American Medical Response, Torrance  
Anaheim Memorial Medical Center, Anaheim  
California School for the Deaf, Riverside  
Cedars-Sinai Medical Center, Los Angeles  
Centinela Freeman Regional Medical Center, Inglewood  
Chapman Medical Center, Orange  
Children's Hospital of Orange County (CHOC), Orange  
Children's Hospital of Los Angeles, Los Angeles  
Children's Hospital and Health Center-San Diego, San Diego  
Coastal Aire Care, Brea  
County of Riverside Health Services Agency, Riverside  
Desert Medical Imaging, Indio  
Encino/Tarzana Regional Medical Center  
UC EFNEP, Orange County Office, Costa Mesa  
Fallbrook Hospital, Fallbrook  
Foothill Presbyterian Hospital, Glendora  
Fountain Valley Regional Hospital and Medical Center, Fountain Valley  
Garden Grove Medical Center, Garden Grove  
Good Samaritan Hospital, Los Angeles  
Healthbridge Children's Rehabilitation Hospital, Orange Coast College  
Hoag Memorial Hospital Presbyterian, Newport Beach  
Huntington Beach Hospital, Huntington Beach  
Huntington Memorial Sleep Disorder Center, Pasadena  
Irvine Medical Center, Irvine  
Kaiser Foundation Hospitals, Southern California Region  
Lakewood Regional Medical Center, Lakewood  
La Palma Intercommunity Hospital, La Palma  
Little Company of Mary Health Services, Torrance  
Loma Linda University Medical Center, Loma Linda  
Long Beach Memorial Medical Center, Long Beach  
Los Alamitos Medical Center, Los Alamitos  
Los Angeles County/USC Medical Center, Los Angeles  
Los Angeles Harbor/UCLA Medical Center, Torrance  
Los Robles Regional Medical Center, Thousand Oaks  
Magella Medical Group, Orange  
Methodist Hospital of Southern California, Arcadia  
Mission Hospital Regional Medical Center, Mission Viejo  
Mission Sleep Disorders Institute, Mission Viejo  
Newport Language and Speech Center, Mission Viejo

Northridge Hospital Medical Center, Northridge  
Olive View/UCLA Medical Center, Sylmar  
Orange Coast Memorial Medical Center, Fountain Valley  
Orange County Department of Education  
Orange County Department of Health and Human Services, WIC Program, Santa Ana  
Orange County Therapy Services, Laguna Hills  
Pacific Sleep Medicine Services, La Jolla  
Pomona Valley Hospital Medical Center, Pomona  
Pomona Valley Sleep Disorders Center, Pomona  
Presbyterian Intercommunity Hospital, Whittier  
Providence St. Joseph Medical Center, Burbank  
Rancho Los Amigos Hospital, Downey  
Riverside General Hospital, Moreno Valley  
Saddleback Memorial Medical Center, Laguna Hills  
St.John's Regional Medical Center, Oxnard  
St. Joseph Hospital, Orange  
St. Jude Hospital and Rehabilitation Center, Fullerton  
St. Mary Medical Center, Long Beach  
St. Vincent Medical Center, Los Angeles  
San Bernardino County Medical Center, San Bernardino  
San Clemente Hospital Medical Center  
San Gabriel Valley Medical Center, San Gabriel  
San Pedro Peninsula Hospital, San Pedro  
Scripps Memorial Hospital, Encinitas  
South Coast Medical Center, Laguna Beach  
Stanford University Hospital, Stanford  
Torrance Memorial Medical Center, Torrance  
Tri-City Medical Center, Oceanside  
UCI Medical Center, Orange  
UCLA Neuropsychiatric Institute, Los Angeles  
UCLA Sleep Disorders Center, Los Angeles  
UCSF Stanford Healthcare, San Francisco  
Veterans Administration Medical Center, Long Beach  
Veterans Administration Medical Center, San Francisco  
West Anaheim Medical Center, Anaheim  
Western Medical Center, Santa Ana  
Western Medical Center – Anaheim  
Whittier Hospital Medical Center, Whittier  
Numerous Skilled Nursing Facilities, Convalescent Hospitals, Clinics, Physicians' and Dental Offices, and Ambulance Services



**EMERITUS**

**ALLINGHAM-DALE, MURIEL**

*Professor, English*  
1971-95

**ALLEN, JAMES M.**

*Professor, History*  
1968-83

**ANTHONY, PATRICIA**

*Professor, Airline Travel Careers*  
1978-03

**ASHBAUGH, STANLEY**

*Professor, Chemistry*  
1974-98

**BAKER, EDWARD R.**

*Dean, Fine Arts*  
1968-98

**BARRETT, RICHARD**

*Professor, Animal Science*  
1949-77

**BEILIN, PHILIP B.**

*Professor, Physics/Mathematics*  
1969-01

**BENNETT, JANE**

*Professor, Business Law*  
1974-04

**BENNETT, LAWRENCE T.**

*Professor, French/English*  
1961-84

**BERGER, IRINA V.**

*Associate Professor, Russian/History*  
1963-84

**BINGO, GEORGE**

*Professor, Aviation Technology*  
1968-88

**BLAKELY, THOMAS**

*Director, Evening College*  
1953-76

**BLANC, GEORGE**

*Administrative Dean, Economic Development &  
Community Education*  
1974-03

**BLESH, CHARLES "CHUCK"**

*Professor, Welding Technology*  
1976-93

**BONIN, ADELYN I.**

*Professor, German*  
1959-83

**BOSSE, DEAN A.**

*Professor, Learning Specialist*  
1975-04

**BOUGHEY, ANN**

*Professor, Emergency Medical  
Technology*  
1976-03

**BOWEN, SHIRLEY A.**

*Professor, Coordinator of Tutorial Center*  
1986-98

**BRADLEY, I. LEE**

*Counselor/Professor, Psychology & Jazz*  
1959-95

**BRADY, JOHN P. Jr.**

*Professor, Electronics*  
1977-98

**BRAND, JOANNA**

*Professor, Librarian*  
1992-04

**BRAND, JON S.**

*Professor, Geography*  
1965-98

**BRIGHTMAN, RICHARD W.**

*Professor, Business/Computer  
Information Systems*  
1963-95

**BRIMER, MARBLE ORA**

*Professor, Art*  
1973-03

**BROOKS, JOHNNIE L.**

*Associate Professor, Physical Education*  
1966-88

**BROWN, JOHN TORMAY**

*Associate Professor, Civil Technology*  
1975-88

**BROWN, SUSAN**

*Administrative Dean, Admissions & Records*  
1964-95

**BRUCE, SILAS**

*Professor, Wastewater Technology*  
1970-88

**BUCKLEY, JOHN M.**

*Division Dean; Professor, Political Science/American  
Studies*  
1969-01

**BULLARD, BARBARA BURGESS (Mrs.)**

*Professor, Speech*  
19966-04

**BULLER, JOHN L.**

*Dean, Admissions, Records &  
Information Services*  
1958-84

**BURCHETT, DEAN**

*Professor, Psychology/Counselor*  
1956-84

**BURKE, CAROL A.**

*Professor, English*  
1976-04

**BUTCHER, NORMA**

*Professor, Music*  
1973-83

**BUTLER, DENNIS**

*Professor, Business Education*  
1981-04

**CALLAHAN, FLORENCE**

*Professor, Medical Assisting*  
1965-75

**CALLANAN, MARGARET G.**

*Professor, English*  
1969-93

**CARLSON, LAWRENCE A.**

*Professor, English*  
1966-00

**CARTER, MINETTE (Mrs.)**

*Professor, French*  
1966-04

**CARY, BRUCE**

*Professor, Counseling Services; Articulation Officer*  
(1972-03)

**CESAREO, MILJENKO**

*Professor, Physics*  
1964-89

**CHARD, RICHARD**

*Administrative Dean, Vocational Education*  
1980-92

**CHILDS, THOMAS H.**

*Assistant Professor, Political Science; Student  
Placement Director*  
1964-85

**CLARK, FRANK L.**

*Professor, Business*  
1976-95

**CLARK, JOHN R.**

*Professor, Mathematics/Computer  
Information Systems*  
1960-92

**CLARKE, JAMES E.**

*Professor, Construction Technology*  
1971-98

**CLASBY, JOAN M.**

*Professor, Diagnostic Medical Sonography*  
1982-04

**CLIFTON, ROBERT B.**

*Professor, Aviation Technology*  
1969-99

**COATES, MONA A.**

*Professor, Sociology*  
1967-04

**COLE, NORMAN H.**

*Professor, Biology*  
1973-04

**COLEMAN, SUSAN**

*Professor, Interior Design;*  
*Coordinator of Career Education*  
1975-04

**COLLINS, DONALD L.**

*Professor, Biology*  
1969-04

**CONRY, EDWIN C.**

*Professor, Science & Mathematics*  
1962-79

**COOL, PHYLLIS**

*Professor, Counseling Services*  
1980-03

**COWPERTHWAIT, SARAH M.**

*Professor, English as a*  
*Second Language*  
1976-93

**CRON, JAMES R.**

*Professor, Welding Technology*  
1971-93

**CRUMLEY, LAVERNE**

*Professor, English*  
1971-84

**CRUTCHER, ROBERT**

*Professor, Art*  
1977-00

**CURTIS, ADRIENNE R.**

*Associate Professor, Chemistry*  
1976-99

**DECKER, KAREN G. A.**

*Professor, Fine Arts*  
1970-04

**DENISON, FRANK E.**

*Professor, Construction Technology*  
1966-88

**DIMSDALE, JEFFREY M.**

*Dean, Student Services*  
1968-00

**DONOFF, SHARON K.**

*Vice President, Student Services*  
1971-00

**DOSS, RICHARD**

*Professor, Philosophy*  
1971-95

**DOWLEN, LOUISE**

*Div. Chair/Professor, English*  
*Charter Faculty*  
1948-78

**DUDDRIDGE, DOROTHY**

*Professor, Dance*  
1961-84

**EASTMAN, JUDITH B.**

*Professor, English*  
1974-00

**EATON, MILES**

*Div. Chair/Professor, Economics*  
*Charter Faculty*  
1948-78

**ELDON, FRED A.**

*Professor, English/Speech*  
1962-95

**ELLIS, GERALD**

*Dean, Evening College;*  
*Professor, Engineering/Math*  
1954-82

**EVERHART, HOWARD**

*Professor, Air Transportation*  
1970-85

**EZELL, MICHAEL**

*Professor, Chemistry*  
1978-04

**FAIR, JACK**

*Professor, Physical Education;*  
*Assistant Football Coach*  
1966-86

**FARMER, JOHN P.**

*Professor, Business Education*  
1961-83

**FERAZZI, PATRICIA A. (Mrs.)**

*Professor, Physical Education and Athletics*  
1974-04

**FERZACCA, JOHN B.**

*Associate Professor, Theatre Arts*  
1970-03

**FEREIRA, VIRGINIA "GINNY"**

*Professor, Physical Education and Athletics*  
1975-03

**FITZEL, GORDON L.**

*Professor, Physical Education and Athletics*  
1978-00

**FEISTHAMMEL, AUDREY M.**

*Professor, Home Economics*  
1968-86

**FINNEGAN, MICHAEL**

*Professor, English*  
1965-98

**FOLEY, WILLIAM, H.**

*Assistant Professor, Aviation Technology*  
1974-95

**FRATANTARO, EDWARD G.**

*Professor, Business Education*  
1975-04

**FREEMAN, GARY**

*Professor, English*  
1970-90

**FRUEHAN, ANNETTE**

*Professor, Counseling Services and English as a*  
*Second Language*  
1972-04

**FULLERTON, JACK**

*Professor, Physical Education*  
1965-88

**GARNER, CAROL GIERS**

*Professor, Management/Marketing*  
1973-04

**GAVIN, JOHN**

*Associate Professor, Air Transportation*  
1980-88

**GILBERTSON, LANCE H.**

*Professor, Biology*  
1965-02

**GILLIS, TANDY C.**

*Associate Professor, Physical Education*  
*and Athletics*  
1976-00

**GOLODNER, PAMELA**

*Professor, Mathematics*  
1981-94

**GRAHAM, SHAINDELL R.**

*Professor, English*  
1980-02

**GRAMS, CAROL ANN**

*Professor, Psychology*  
1968-03

**GRANT, DAVID A.**

*College President*  
*Dean of Students*  
1962-95

**GRAZAITIS, MARIANA**

*Professor/Librarian*  
1965-88

**GREEN, CHARLES B.**

*Professor, Psychology*  
1971-04

**GRIGGS, PATRICIA A.**

*Associate Professor, Counseling Services*  
1984-95

**GUNDRY, MAXINE CHERRY**

*Professor, English*  
1960-95

**HANCHETT, FLORENCE L.**

*Associate Professor, Sociology*  
1969-03

**HANCOCK, ROBERT J.**

*Professor, Mathematics/Engineering*  
(1969-03)

**HARVEY, MONTA LEE**

*Professor, Psychology*  
1970-98

**HENDRICKSON, NOVELLE**

*Instructor, Interiors/Clothing & Textiles*  
1974-87

**HILGENDORF, JANE A.**

*Dean, Physical Education and Athletics, Professor,*  
*Physical Education*  
1970-00

**HOEPPNER, ROBERT L.**

*Professor, Counseling Services*  
1964-95

**HOFFMAN, THEODORE**

*Professor, Electronics*  
1965-91

**HOKANSON, FRED A.**

*Dean, Physical Education and Athletics, Professor*  
*Physical Education*  
1969-03

**HOLBEN, CAROL ANN**

*Associate Professor, Mathematics*  
1970-98

**HOWE, RICHARD L.**

*Professor, Business Education*  
1964-96

**HOWELL, JANET K.**

*Professor, Psychology/Counselor*  
*Student Placement Director*  
1966-82

**HUBBLE, BROWNLEE**

*Associate Professor, Counseling Services*  
1967-93

**HUTCHINSON, MINA HARPER**

*Associate Professor, Home Economics*  
1955-85

**ICHINO, PAUL T.**

*Associate Professor, Radiologic Technology*  
1976-88

**ISEMAN, TONI E.**

*Professor, Counseling Services*  
1990-04

**JACKSON, ANN**

*Counselor, Professor of English*  
1975-00

**JACOBS, DONALD R.**

*Professor, Political Science*  
1965-95

**JAMIESON, EDWARD G.**

*Professor, Psychology*  
1965-2004

**JAMES, GARY**

*Dean, Math and Sciences, Professor*  
1967-93

**JARMAN, DAVID L.**

*Professor, Construction Technology*  
1975-98

**JEANS-VALENCIA, DOLORES**

*Professor, Aviation Services*  
1965-85

**JEFFRIES, DON F.**

*Professor, Mathematics/Engineering*  
1962-03

**JENSEN, JOHN L.**

*Professor, History*  
1959-84

**JOHNS, DAVID G.**

*Professor, Art*  
1969-98

**JOHNSON, STANLEY N.**

*Dean, Mathematics and Science*  
1971-05

**JOHNSTON, DAVID W.**

*Associate Professor, Philosophy*  
1960-98

**JONES, SHARON S.**

*Professor, Health and Physical Education*  
1969-03

**JORGENSEN, WILLIAM KEITH**

*Professor, Mathematics*  
1976-93

**JUDKINS, HOWARD**

*Associate Professor, Music*  
1974-03

**KAGLEY, DORIS**

*Professor, Counseling Services*  
1961-93

**KARR-POWELL, ARLENE**

*Professor, Music*  
1976-95

**KLAMMER, KAREN**

*Associate Professor, Business Education*  
1976-04

**KLECK, WALLACE D.**

*Professor, Geology/Mathematics*  
1963-94

**KOSTKA, CONNIE MACK (Mr.)**

*Associate Professor,*  
*Dental Technology*  
1972-91

**KOSUTH, JOAN**

*Counselor, Professor of English*  
1976-03

**KOWALSKI, JAMES A.**

*Counselor, Professor of Psychology*  
1970-04

**KUBIS, PATRICIA**

*Professor, English*  
1965-85

**LANGHANS, MARGARET**

*Professor, English*  
1975-04

**LE BRANE, LAWRENCE P.**

*Professor, Art*

1971-03

**LEVITON, CHARLES D.**

Professor, Psychology  
1969-03

**LEWIS, RALPH F.**

Professor, Economics  
1969-2004)

**LINDER, RICHARD C.**

Assistant Professor, English  
1966-95

**LISTER, RICHARD S.**

Professor, Psychology  
1968-98

**LIVSEY, HERB F.**

Professor, English/Physical Education and Athletics  
1969-96

**LOSMANN, JOHN**

Professor, Metal Trades  
1965-76

**LOUIE, DENNIS H.**

Professor, Office Information Systems  
1978-95

**LOW, DON R.**

Dean, Counseling Services  
1971-98

**LUMIAN, NORMAN C.**

Professor, History/American Studies  
1959-85

**MacMILLIN, PAUL G.**

Assistant Professor, Business Education  
1966-98

**MAGDA, MARNI M.**

Professor, English  
1980-04

**MARSH, DICK E.**

Dean, Social and Behavioral Sciences  
1968-03

**MARTIN, LAURI R.**

Professor, Photography  
1968-96

**MARTIN, MARY MARTHA**

Professor, Physical Education and Athletics  
1990-03

**MATTIAS, GEORGE R.**

Professor, Physical Education and Athletics, Assistant  
Football Coach  
1963-93

**MAYNE, EMMETT "MIKE"**

Professor, Physical Education and Athletics;  
Assistant Coach, Football  
1976-04

**McAFERTY, HELEN K.**

Associate Professor, Chemistry  
1963-88

**McCHESNEY, MARY**

Professor, Spanish  
1950-83

**McCLURG, DICK**

Professor, Air Transportation  
1968-76

**McCULLOCH, SARA ELLEN**

Professor, English  
1964-85

**McDONOUGH, CATHERINE**

Director, Student Health Service/Associate Professor  
1971-95

**McGILL, JOHN R.**

Executive Dean, Instruction, Dean, Admissions,  
Records & Information Services  
1966-88

**McILWAIN, JAMES L.**

Vice President, Administrative Services  
1965-03

**McNAMEE, MICHAEL W.**

Instructor/Coordinator,  
Business Information Systems  
1978-85

**McTIERNAN, EDITH**

Associate Professor, Allied Health & EEG Program  
Director  
1973-85

**MECKE, CHARLOTTE P.**

Professor, English and Education  
1964-91

**MERRY, DWAYNE L.**

Professor, Anthropology  
1965-88

**MILLER, FRANK LESLIE**

Associate Professor, Mathematics  
1966-03

**MISENER, MARY JEAN**

Professor/Director, Dental Assisting  
1961-74

**MITCHEL, ROBERT**

Dean, Business Division  
Associate Professor, Business Education  
1960-88

**MOELLER, LINDA A.**

Associate Professor, Physical Education and Athletics;  
Head Coach Women's Crew  
1981-05

**MOGAN, PATRICIA J.**

Associate Professor, Home Economics  
1959-95

**MOORE, ROBERT B.**

College President 1964-82  
Dean of Instruction 1960-64

**MORIN, SYLVETTE**

Professor, English as a  
Second Language  
1989-1999

**NASBY, DAVID P.**

Professor, Mathematics  
1963-98

**NEDOFF, CHARLES**

Professor, Sociology  
1956-88

**NETOLICZKA, ELISABETH**

Associate Professor, Spanish  
1991-04

**O'KEEFE, THOMAS**

Assistant Professor, English  
1979-00

**OSBERHAUS, MARY ANN**

Professor, Marketing/Management  
1967-98

**OLSON, JUDITH O.**

Professor, Airline and Travel Careers  
1974-04

**OSBORNE, TOM**

Professor, Business Education  
1954-1983

**ORTELL, MICHAEL N.**

Professor, Mathematics  
1970-04

**OVERHOLT, GENE**

Professor, Business Education  
1959-83

**PADDEN, WILLIAM E.**

Associate Professor, Aviation and Space  
1991-00

**PAINTER, ALFRED**

*Professor, Philosophy*  
1967-83

**PALADINO, ALAN M.**

*Professor, Electronics Technology*  
1976-03

**PANIAN, HENRY, S.**

*Professor, History*  
1956-90

**PARKER, JOHN R.**

*Professor, Ornamental Horticulture*  
1974-04

**PEARCE, FRANCES M.**

*Professor, Business Education*  
1955-75

**PEARLMAN, JOSEPH**

*Professor, Music*  
1965-83

**PHILLIPS, ROBERT MALCOLM**

*Assistant Professor, Counseling Services*  
1964-93

**PIERSTORFF, DON K.**

*Professor, English/Technical Writing*  
1985-04

**PINER, CHARLES BRUCE**

*Professor, Art*  
1958-90

**PITTON, JAMES A.**

*Associate Professor, Chemistry & Physical Science*  
1954-91

**PONDER, JOHNNY**

*Instructor, Computer Information Systems*  
1971-92

**PONTNEY, JOAN**

*Professor, Microbiology*  
1968-81

**POST, MARTIN**

*Professor, Business Education*  
1965-83

**POWELL, MILDRED S.**

*Associate Professor, Home Economics*  
1975-85

**PRICE, DAVID G.**

*Professor, Electro/Mechanical Drafting*  
1974-98

**PRIDDY, BARBARA J.**

*Professor, Business Education*  
1973-98

**RAUB, RICHARD**

*Professor, Music*  
1970-93

**RECCOW, LOUIS**

*Professor, History*  
1968-88

**REES, HENRY M.**

*Professor, Construction Technology*  
1975-98

**REESE, JAMES I.**

*Professor, Geology*  
1972-88

**REMINGTON, ALAN**

*Associate Professor, Music*  
1977-2003

**REYNOLDS, RICHARD**

*Professor, Business Education*  
1964-84

**RICHARDS, JERREL T.**

*Dean, Counseling, Psychology & Special Services*  
1958-84

**RIDDICK, GLENDA**

*Associate Professor, Human Development*  
1971-94

**RIETSTRA, EDITH**

*Librarian/Professor*  
1986-00

**ROJAS, EUSTACE**

*Professor, Spanish Charter Faculty*  
1949-83

**ROMANS, VAN A.**

*Professor, Fine Arts*  
1973-03

**ROSSO, RAYMOND**

*Professor, Physical Education Intra-Mural Director/Charter Faculty*  
1948-83

**ROUNDY, WILLARD H.**

*Professor, Chemistry*  
1965-02

**RUBINSTEIN, NANCY LEE**

*Professor, Business Education*  
1965-88

**RUETER, DONALD B.**

*Professor, Computer Information Systems*  
1971-04

**RUTH, MONTY**

*Assistant Professor, Computer Information Systems*  
1985-03

**RUTHERFORD, CHARLES**

*Professor, Instrumental Music*  
1967-98

**SALESSI, SUSANA N.**

*Professor, Spanish/Italian*  
1974-04

**SANFORD, JOHN R.**

*Associate Professor, Photography*  
1969-98

**SAWYER, ALAN L.**

*Professor, Mathematics*  
1957-97

**SCARFONE, PATRICIA M.**

*Professor, Spanish/Italian*  
1986-04

**SCHMITZ, JOSEPH**

*Associate Professor, Art*  
1972-84

**SCRIPPSMA, KENNETH E.**

*Associate Professor, Hotel Management*  
1971-92

**SHANLEY, KAREN L.**

*Professor, Dance*  
1976-00

**SHARKEY, DONNA L.**

*Professor, Art*  
1962-86

**SHAW, KENNETH H.**

*Assistant Professor, Electronics Technology*  
1982-03

**SIMON, RICHARD**

*Professor, Communications/Business*  
1984-00

**SIMONDS, ROBERT**

*Professor, Construction Technology*  
1963-81

**SLAUGHTER, ROBERT L.**

*Professor, Business Education*  
1968-91

**SMITH, DOUGLAS C.**

*Professor, English*  
1966-98

**SMITH, ROBERT B.**

*Professor, Psychology*  
1971-2004

**SMITH, EDITH G.**

*Professor, Music*  
1971-98

**SMITH, GLENN**

*Professor, Speech*  
1971-81

**SMITH, LLOYD**

*Professor, Biological Sciences*  
1956-80

**SNOW, ROSLYN**

*Professor, English*  
1962-98

**STEPHENS, ROY L.**

*Professor, Aviation and Space*  
1976-94

**STONEKING, JOYCE**

*Professor, Business Education*  
1978-04

**TARZIAN, RALPH**

*Professor, Art*  
1965-84

**TAUSSIG, H. ARTHUR**

*Professor, Photography*  
1972-03

**TAYLOR, MARGARET L.**

*Assistant Professor, Speech/English*  
1968-00

**TAYLOR, OSCAR**

*Professor, Architecture*  
1949-83

**THOMAS, SALLY H.**

*Professor, Mathematics*  
1975-01

**THOMPSON, JEAN**

*Associate Dean, Community Services*  
1957-81

**TOLSON, JANET M.**

*Professor, Counseling Services*  
1988-03

**TOMCHAK, JOSEPH**

*Professor, Anthropology*  
1958-86

**TOY, SANDRA E.**

*Professor, Business Education*  
1975-03

**TUCKER, HAL RICHARD**

*Professor, Physical Education & Athletics*  
1962-95

**UPTON, JOHN**

*Professor, Photography*  
1965-98

**VAIL, DOREEN W. (Ms.)**

*Professor, Sociology*  
1965-03

**VISCO, FRANK J.**

*Professor, Biology*  
1968-2004

**VISINTAINER, LINDA L.**

*Associate Professor, Radiologic  
Technology*  
1991-03

**WALKER, JOAN**

*Professor, Radiologic Technology*  
1969-86

**WALLACE, BARRY C.**

*Professor, Physical Education and Athletics; Head  
Coach, Men's and Women's Golf*  
1968-03

**WALLACE, WESLEY V.**

*Professor/Director, Dental Technology*  
1966-83

**WASSERMAN, LARRY**

*Professor, Art*  
1975-98

**WATSON, NORMAN E.**

*Chancellor, CCCD*  
1952-84

**WESTFALL, WENDELL**

*Librarian, Professor*  
1971-91

**WETZEL, ROBERT C.**

*Professor, Physical Education & Athletics*  
1964-95

**WHITMORE, LYNN A.**

*Professor, English*  
1992-2004

**WHITESSELL, JACK K.**

*Professor, Counseling Services*  
1965-98

**WICHERT, JACK**

*Associate Professor, Business Education*  
1975-03

**WILSON, ROBERT L.**

*Dean, Business Education/Professor, Business  
Education*  
1969-95

**WIN, U KYAW**

*Professor, Counseling Services*  
1968-98

**WOLFE, JUDITH A.**

*Associate Professor, Spanish/French*  
1975-03

**WOLFE, WAYNE H.**

*Professor, Mathematics*  
1970-01

**WONACOTT, DALE**

*Professor, Physical Education*  
*Assistant Football Coach*  
1962-86

**WOOD, LARRY B.**

*Professor, Architectural Technology*  
1965-99  
*ation/Vocational Ed*  
1964-85

**WORKMAN, WILLIAM**

*Professor, Physical Education and Athletics*  
1986-00

**WRIGHT, BARBARA J.**

*Professor, Physical Education and Athletics*  
1973-03

**WYLIE, JAMES**

*Professor, Chemistry*  
1953-85

**YOST, BETTY**

*Professor, Biology*  
1976-90

**ZIMMERMANN, JAY**

*Professor, English/ Education*  
1965-03

# INDEX

---

- Absences, 36
- Academic Honesty, 22
- Academic Honors, 36
- Academic Renewal Policy, 38
- Academic Standards, 36
- Accreditation, 8
- Adapted P.E. Program, 14
- Admission, Orange Coast College, 25
- Admission to Four-Year College and Universities, 54
- Advanced Placement Scores, 32
- Allied Health Programs, Admission to, 27
- Alpha Gamma Sigma, 37
- Alternate Methods of Study, 31
- Alumni Association, 14
- Application, Entrance, 26
- Assessment Center, 14
- Associate of Arts Degree, 35
- Associated Students, 14
- Athletics, Intercollegiate, 15
- Athletics, Non-Conference, 15
- Attendance, 36
- Auditing, Course, 36
- Behavior, Disruptive, 22
- Calendar, Academic, 5
- California State University Admission Requirements, 54
- ASSIST, 52
- California, University of, Admission Requirements, 56
- CARE, 17
- Career Education, 10
- Career Lab/Library, 15
- Career Programs, 10, 59
- Certificate Awards, 35
- Certificate Programs, 61
- Children's Center, 15
- College Level Examination Program (CLEP), 32
- Conduct, Student Code of, 24
- Contracted Studies, 33
- Counseling Services, 10, 15
- Courses, 143
- Course Auditing, 36
- Course Accessibility, 8, 22
- Course Challenge Process, 27
- Course Repetition, 35
- Course Numbers, Meaning of, 137
- Credit by Examination, 31
- Cultural and Community Education Programs, 10
- Dean's List, 36
- Developmental Programs, 10
- Directed Studies, 33
- Disruptive Behavior, 22
- Disabled Students' High Tech Center, 16
- Disabled Students' Center, 16
- Disabled Students Rights, 10
- Disqualification Policy, 39
- Due Process Procedure, Student, 24
- Emeritus, 241
- Entrance Requirements, 26
- Equal Opportunity Policy, 9
- Extended Education Program, 10
- Extended Opportunities Programs and Services (EOPS), 16
- Family Rights and Privacy Act, 22
- Faculty, 227
- Fees, Student, 28
- Fees, Non-Resident, 28
- Financial Aid, 17
- Foundation, OCC, 9
- Freshman Standing, 31
- Full-Time Student Classification, 31
- Graduation Requirements, OCC, 42
- Grades and Grade Points, 34
- Grade Grievances, 23
- Graduation, Petition for, 42
- Graduation Requirements, 42
- Grievances, 23
- Health Services, Student, 18
- Honors List, 37
- Honors, Academic, 37
- Housing, 17
- Incompletes, 34
- Independent Studies (Directed), 33
- International Students, 30
- Internship Academy, 15
- Job Placement Center, 18
- Learning Center, 18
- Licensure Credit, 34
- Library Services, 18
- Loans (Financial Aid), 17
- Lost and Found, 18
- Matriculation, 16, 26
- Medical Advisors, Allied Health, 237
- Memberships and Affiliations, 8
- Middle College High School, 39
- Military Study Program, 34
- Mission Statement, 7
- Non-Discrimination Policies, 23
- Online Learning, 32
- Outreach, 16
- Parking Permits, 23
- Part-Time Student Classification, 31
- Placement Test Requirements, 27
- Prerequisites/Corequisites, 26
- Priority Registration Policy, 26
- President's List, 36
- Probation and Disqualification Policy, 38
- Psi Beta, 37
- Publication Disclaimer, 24
- Recommended Preparation, 26
- Recycling Center, 18
- Re-Entry Center, 15
- Refund Policy, 29
- Remedial Coursework, 31
- Repetition, Course, 35
- Reserve Officers Training Corps (ROTC), 11
- Residents, Out-of-State, 29
- Residence Requirements, 29
- Retraining, 10
- Service Compliance, 22
- Sexual Harassment, 23
- Scholarships, 18
- School of Allied Health Professions Affiliates, 238
- Sophomore Standing, 31
- Student Center Lounge, 19
- Student Government-The Associated Students, 14
- Students with Visas, 30
- Student Records Privacy, 22
- Study Abroad Program, 34
- Study Load and Student Classification, 31
- Transcripts, 26
- Transfer Center, 16, 52
- Transfer Information, 10, 31, 52
- Transfer Programs, 10, 52
- Tutorial Center, 19
- UC Credit Limitations, 224
- University of California, Admission Requirements, 57
- Veterans, 31
- Vocational Rehabilitation Services, 19
- Withdrawal, 34