

Orange Coast College

CATALOG

2009-2010

We'll help you get there.™

Our Mission

ORANGE COAST COLLEGE IS COMMITTED TO STUDENT LEARNING AND PERSONAL IMPROVEMENT. WE PROVIDE ASSOCIATE DEGREES, TRANSFER PREPARATION, CERTIFICATES IN CAREER AND TECHNICAL EDUCATION, AS WELL AS INSTRUCTION IN BASIC SKILLS AND ENGLISH AS A SECOND LANGUAGE. THE COLLEGE SERVES THE ECONOMIC AND WORKFORCE DEVELOPMENT NEEDS OF THE LOCAL COMMUNITY AND DEVELOPS GLOBALLY AWARE CITIZENS.

Orange Coast College

CATALOG

2009-2010

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COSTA MESA, CA 92628-5005

ADMISSIONS INFORMATION: 714-432-5072

GENERAL INFORMATION: 714-432-0202

WWW.ORANGECOASTCOLLEGE.EDU



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COLLEGE ADMINISTRATION

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Marketing

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Dean, Student Services

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Dean, Social and Behavioral Sciences

Kevin T. Ballinger,
Dean, Consumer and Health Sciences

Douglas R. Benoit, Ed.D.,
Dean, Technology

Barbara B. Bond,
Dean, Physical Education and Athletics

Ed Fratantoro,
Dean, Business, Computing
and Career Services (Interim)

Valerie Hayward,
Dean, Mathematics and
Sciences (Interim)

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Dean, Literature and Languages

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Dean, Instructional Programs

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Corine Doughty,
Director, Career Services

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General Manager, Instructional
Food Services - Cafeteria

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Dean, Library and Media Services
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Manager, Facilities Construction

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Daniela Thompson,
Director, Campus Budget &
Financial Operations

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(Acting Chancellor)

Coast Community College District Board of Trustees

Mary Hornbuckle

Walter G. Howald

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Jerry Patterson

Lorraine Prinsky, Ph.D.

Student Trustee

FALL 2009 CALENDAR

August 31	Semester Begins
September 7	HOLIDAY — Labor Day
September 7	Applications accepted for Spring 2010 Semester, including Winter Intersession
October 26	Beginning of second 8-week classes
November 11	HOLIDAY — Veterans' Day
November 26-29	HOLIDAY — Thanksgiving vacation
December 20	Last day of Fall Semester
Dec. 21-Jan. 3	Winter Break

WINTER 2010 INTERSESSION

January 4	First day of Winter Intersession
January 18	HOLIDAY — Martin Luther King Jr. Day
January 29	Last day of Winter Intersession

SPRING 2010 CALENDAR

January 30	Semester Begins
February 12	HOLIDAY — Lincoln's Birthday
February 15	HOLIDAY — Washington's Birthday
February 8	Applications accepted for 2010 Summer Session and Fall Semester
March 29-April 4	Spring Break
April 5	Beginning of second 8-week classes
May 30	Last day of Spring Semester

All dates are subject to change without notice.

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

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

- Registration Program Receipt (Available via MyOCC)
- Dates to Remember- Available in the Enrollment Center, Watson Hall
- Academic Calendar in the class schedule
- www.orangecoastcollege.edu - Click on Deadlines and Dates to Remember on the Enrollment Center page
- Contact the Answer Center at (714) 432-5072

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

VISION STATEMENT

Orange Coast College will be the standard of excellence in transforming lives through education.

MISSION STATEMENT

Orange Coast College is committed to student learning and personal improvement. We provide associate degrees, transfer preparation, certificates in career and technical education, as well as instruction in basic skills and English as a Second Language. The college serves the economic and workforce development needs of the local community and develops globally aware citizens.

About the College History and Location

Orange Coast College in Costa Mesa, California, was founded in 1947 on a 202-acre site which was granted by the federal government. The campus currently consists of 164 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, 10 Commercial Blvd., Ste. 204, Novato, CA 94949; (415) 506-0234, 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: Accrediting Commission of the American Culinary Federation Educational Institute; 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 55003) 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 also grants the degree of Associate in Science only for the majors listed in the Associate Science Degree requirements section in this catalog.

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 Specialization (less than 18 units) 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 for State and Local History
- American Association of Community Colleges
- American College Dance Festival Association

- Associated Collegiate Press
- Association for Business Communication
- Association of Collegiate Business Schools
- Association for Core Texts and Courses
- California Community Colleges Chief Instructional Officers
- California Community Colleges Chief Student Services Administrators Association
- California Community College Council for Staff Development
- Center for Academic Integrity
- Commission on Accreditation for Education in Electroneurodiagnostic Technology (CoA-END)
- Commission on Accreditation for Education in Polysomnographic Technology (CoA-PSG)
- Council of Chief Librarians of California Community Colleges
- English Council of California Two-Year Colleges
- Honors Transfer Council
- Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT)
- Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-CVT)
- NAFA/AIE: Association of International Educators
- National Association of Colleges and Employers
- National Association of Community College Teacher Education Programs
- National Collegiate Honors Council
- Professional and Organizational Development Network in Higher Education
- Recording for the Blind and Dyslexic
- South Coast Higher Education Council
- Southern California Intersegmental Articulation Council
- Western Regional Honors Council
- Umoja Community, Foundation for California Community Colleges

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

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 and 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 (DSC), 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. Inquiries about the college's equal opportunity policy should be directed to the Title 9 coordinator at 714-432-5766 in the Physical Education and Athletics division.

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, located in Special Service building.

College Programs

Career Programs

Orange Coast College offers over 50 Career & Technical Education programs. As never before in its history, America needs people who are trained

in artistic, scientific, professional and technical fields. OCC offers a variety of programs combining theory, practical training and experience. A program advisory committee, composed of local employers and workers, helps plan and offers on-going advice and supervision for career programs. An extensive list of program descriptions is located in the college catalog under "Career and Certificate Programs." Pick up one of the career programs brochure to find what Career and Certificate Programs OCC offers. To learn more about careers options, please check us out on-line at <http://www.orangecoastcollege.edu/careerservices> For more information, phone (714) 432-5576 x5.

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 A100 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

The 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. The college offer special programs and courses in developmental reading, vocabulary building, spelling, oral communication, basic mathematics and English as a Second Language.

Career Center Services

Career Services is a multi-faceted department that focuses on preparing students for careers. It encompasses the Career Library, Career Programs, Tech Prep, the Internship Academy, and Job Placement. The Career Center is located on the 3rd floor of the Watson Hall building. For more information, phone (714) 432-5576 ext. 4 or visit <http://www.orangecoastcollege.edu/careerservices>

Career Library

The Career Library offers a variety of materials for students to research their future occupations and educational goals. Students can access school catalogs, college major directories, college rankings, college entrance test preparation materials, detailed career information, job outlook and trends. There are 18 internet-ready computers and printer for student use. Free career assessments available: Choices Explorer, Eureka Skills Inventory, SIGI 3, and e-Discover.

To learn more about job and employment skills, please visit www.missing-major.com For more information, phone (714) 432-5576 ext. 4.

Tech Prep

Tech Prep is funded through the Carl D. Perkins Vocational and Technical Education Act, and is a significant innovation in the education reform movement in the United States.

Tech Prep education is an articulated, planned

sequence of study beginning in high school, and extending through at least two years of postsecondary education or an apprenticeship program. Programs can continue up to the Baccalaureate degree. Tech Prep programs promote a bridge between secondary and post secondary program emphasizing contextual learning and career pathways. Tech Prep is an important school-to-work transition strategy, helping all students make the connection between school and employment.

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 related to their education.

The Academy experience is a compilation of career exploration, training-related field experience and clinical fieldwork. For more information, phone (714) 432-5576 ext. 2 or check us out on-line at <http://www.orangecoastcollege.edu/careerservices>

Job Placement Center

The Job Placement Office provides a connection between employers and Orange Coast College students. We assist students in their job search by providing 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 checkout. Computers are accessible to assist with your job search. Placement Office personnel are also available to discuss your particular job search needs. For more information, phone (714) 432-5576 ext. 1 or check us out on-line at <http://www.orangecoastcollege.edu/careerservices>.

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, students 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 website 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 and in the Associated Students Office.

Adapted P.E. Program

Adapted Physical Education classes are designed for students with physical disabilities who can benefit from personalized exercise programs. A variety of courses are offered for improvement in strength, balance, flexibility, and cardiovascular endurance, in addition to courses in individual sports such as Bowling and Aquatics. Students must register through the Disabled Students Center (page 16) and complete a necessary medical verification form prior to participation. For more information, phone (714) 432-5528 or email roconnor@occ.cccd.edu.

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 to not only 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 jclevenger@occ.cccd.edu.



Assessment Center

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

For more information, phone (714) 432-5789 or visit the Assessment Center on the OCC website for test schedules.

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 serving on campuswide committees, serving as a club

member or officer, participating in programs and activities, and working on fiscal-related issues.

We invite students 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, call (714) 432-5507.

Athletics

OCC has one of the best Athletic programs in the state. In 2006, OCC was awarded the Pepsi Cup, an honor given to the top community college athletic program in the state.

The Pirates field 12 men's athletic teams and 11 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 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 California Community College Athletic Association (CCCAA). 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 Southern California Football Association, National Division, which includes the following schools: Orange Coast, Palomar, Santa Ana, Saddleback, Long Beach, Fullerton and Grossmont.

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.

The hours of operation are:

DAYTIME

Monday - Friday: 7:30 a.m. - 5 p.m.
(6 months - 2 1/2 years of age)

Monday - Thursday: 7:30 a.m. - 6 p.m.
Friday: 7:30 a.m. - 5:00 p.m.
(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, contact the Children's Center at (714) 432-5569.

CalWORKs

In cooperation with the Orange County Department of Social Services, the California Work Opportunities and Responsibilities to Kids (CalWORKs) program provides specialized services to families who are applying for or are current TANF (Temporary Aid to Needy Families) recipients. Additional services for qualified students may include: child care grants, personal counseling, academic advisement, advocacy, transportation assistance, subsidized work-study, community referrals and job placement guidance.

The CalWORKs program is located in Watson Hall, fourth floor, room 456. For more information please call (714) 432-5636.

Cooperative Agencies Resources for Education (CARE)

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

- Be 18 years of age or older
- Be a single parent and head of household of a child or children under 14 years of age
- Receive TANF/CalWORKs monetary benefits

Services for CARE students include supportive counseling, textbook/supplies, transportation assistance and a meal program.

The CARE office is located in Watson Hall, fourth floor, room 443. For more information please call (714) 432-5173 or visit our website at www.orangecoastcollege.edu/student_services/eops

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 on the third floor of Watson Hall or by phone, (714) 432-5078. For further counseling information phone (714) 432-5700.

Resource Desk

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

Re-Entry Center

The Re-Entry Center, on the fourth floor room 433 of Watson Hall, 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 schools are available in the center. The center also sponsors a "Transfer Day" in the fall semester with representatives on campus from more than 40 colleges and universities from throughout California. Transfer planning workshops are offered throughout the academic year. The Transfer Center is located on the second floor room 215 of Watson Hall. 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 Enrollment Services.

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 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 8 a.m. to 5 p.m., Monday through Friday. Phone (714) 432-5807 or (714) 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 students with barriers to their education. Support services include academic and personalized counseling, career and transfer planning, textbook services, bilingual services, tutoring, cultural events and priority registration.

To determine eligibility, the student should visit the EOPS office located in Watson Hall, fourth floor, room 443. For more information, phone (714) 432-5817 or visit our website at www.orangecoastcollege.edu/student_services/eops

Student Financial Aid

Student 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 student 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. Student 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—federal and state governments, lending institutions, and college specific programs funded by the colleges' own institutional resources. Provided below are the types of student 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. Priority deadline is March 2.

- GRANTS (Money awarded that is not repaid)
 - The Federal Pell Grant
 - The Supplemental Educational Opportunity Grant (SEOG)
 - Academic Competitiveness Grant (AC Grant)
 - Teacher Education Assistance for College or Higher Education Grant (TEACH)
- LOANS (Money which the student must repay)
 - The Direct Loan Program
 - 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 (BOGFW)

(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.)

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

Monday-Thursday: 8 a.m. - 6:30 p.m.

Friday: 8 a.m. - 2:00 p.m.

For more information, please contact us at (714) 432-5508 or through our web site www.orangecoastcollege.edu. Award letters and student financial aid notifications will be sent via email.

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 Classroom and Lab 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/.

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 other's country and culture, see one's own country in a new light, and make new friends. For further information, please call the International Center at (714) 432-5940.

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.

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 offering individual instruction in reading, writing, spelling and arithmetic. The Center's 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 1 to 3 units of credit each semester by enrolling in Learning Skills N001AD. The Learning Center's phone number is (714) 432-5535.

Library Services

Containing 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. The library is open during fall and spring semesters Monday through Thursday from 8 a.m. to 9:00 p.m.; Friday from 8 a.m. to 3:00 p.m.; and Saturday and Sunday (hours vary). The hours vary during the summer and winter intersessions. The library is closed all school holidays. Remote access to the library's online catalog and full-text databases is available through MyOCC.

An OCC student ID card or a library card is required to check out library materials. Circulating books may be checked out for a three week period and renewed once if not on hold. Fines are \$.25 per day per book up to a maximum of \$10. Reserve material will be found at the circulation desk and may be checked out for a limited time, usually two hours. In addition, the library has established a new textbook collection for the students, funded by the OCC Foundation, with a generous bequest from former OCC faculty member Shirley Brooke. Students may use a textbook in this growing reserve collection for two hours in the library. Fines vary depending on whether the material is a reserve item, a circulating book, or a media item. Library materials may be returned in the book bin in parking lot E or at the front of the library. Materials not found in the 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.

The media/computer lab department provides instructional videos, Coastline College telecourses, language resources, 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.

Reference librarians are available to teach and guide students in using the numerous print and online resources provided by the library. The library offers a transferable one-unit class (LIB A100, Introduction to Library Resources) designed to develop research skills.

Lost and Found

Lost and Found is located in the ASOCC office. The office is open 8 a.m. – 6 p.m. Monday through Thursday and 8 a.m. – 5 p.m. on Friday. It can be reached by calling (714) 432-0202 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 also accepts electronic waste.

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/. For more information, call (714) 432-5645.

Student Health Center

The Orange Coast College Student Health Center was initiated by students for students unable to obtain--affordable health care. It is financed by a student health fee of \$16. Students must be currently enrolled and attend classes to use the service. Bring student ID card when visiting the health center.

The Student Health Center is located next to the gymnasium on Fairview Road. For the Fall and Spring semesters the Student Health Center is open when classes are in session at the following times: 8 a.m. - 6:30 p.m., Monday through Thursday, and 9 a.m. - 3 p.m. on Friday. Winter and Summer session dates and times to be posted. 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. All claims have a \$50 deductible (Class 1 athletic activities have a \$100 deductible).



Student Center Lounge

The Student Center Lounge is open for public use Monday through Thursday, 8 a.m. - 6 p.m. and Friday, 8 a.m. - 2 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.

Student Success Center

Students can receive free tutoring for most GE classes. Trained tutors assist in improving study skills as well as course content areas. The OCC Student Success Center is located in the center of campus. For more information, including current hours, phone 714-432-5559.

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, reimbursed 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, 222 S Harbor Blvd., Ste 300, Anaheim, California 92805. The phone number is (714) 991-0800 or you can visit their Web site at 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.

Disruptive Behavior

A student who is uncontrollably disruptive of the educational process or a danger to themselves 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.

MyOCC

All admitted students receive a personal account to log in to MyOCC, the College's student/staff portal, which may be accessed via the College Website. Access to the following services and important information is available via MyOCC:

- Order official transcripts
- Access/print unofficial transcripts
- Access account balances and pay fees

- Check academic standing
- Check for holds on records/registration
- View important targeted announcements & OCC News
- Order a verification of enrollment
- Print a program receipt (includes specific course information including meeting dates/times, deadlines for each course, and a detail of fees paid)
- Register for classes
- Drop classes
- View registration history
- Change mailing address and/or phone number
- Access and print 1098T Hope Tax Credit Form
- Access CCCD student email account
- Purchase a parking permit
- Submit a Request to Add
- Access the online textbook order system
- Access library resources
- OCC student financial aid information
- Apple Store
- Important Deadlines

It is the student's responsibility to be aware of and adhere to State-mandated drop deadlines and deadlines to request a pass/no-pass option. In addition, students should be aware of and adhere to the deadlines for fee-payment and refund of fees. Students should check their MyOCC page, particularly their Class Program, and their CCCD issued email account often for important updates and information. The CCCD email account and MyOCC message boards are the official communication methods that instructors and staff use to send students important information.

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 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 Dean of Enrollment Services for academic records or the Dean of Counseling Services for counseling files.

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 information 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 Re-disclosure. 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 student 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 5, a student's records may not be released if there are 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 encour-

aged 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. The California Code of Regulations, Title 5, Section 55760. Grade Changes (a), states, "In any course of instruction in a community college district for which grades are awarded, the instructor of the course shall determine the grade to be awarded each student in accordance with section 55758 of this chapter. The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetency. Procedures for the correction of grades given in error shall include expunging the incorrect grade from the record." A grade or score resulting from academic dishonesty does not represent a valid academic measure of performance and is not replaceable by a different grade, score, or any other performance measure.

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.

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

Orange Coast College (OCC) is an equal opportunity community college and employer, and does not discriminate against students or employees on the basis of race, color, religion, sex sexual orientation, marital status, national origin, ancestry, disability, are medical condition, or any other class protected by State and Federal Laws. Orange Coast College is committed to excellence through diversity, and takes pride in its multicultural, diverse environment.

Politica 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 lĩnh 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 \$30 each semester and \$15 for summer session. The permit is valid at Orange Coast College, Golden West College and Coastline Community College. Alternatives to the parking permit are metered parking, which costs 50 cents for one hour 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 9 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, an informational brochure on the options available to you, or if you would like to discuss your concern with an Administrator, please contact the Dean of Students at (714) 432-5741 or the Director of Personnel at (714) 432-5670.

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.

- 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.

Alcohol and Drug Abuse Notice

It is the intention of the Coast Community College District to provide an environment that maximizes academic achievement and personal growth. The District recognizes that alcohol and other drug use or abuse pose a significant threat to the health, safety, and well-being of users and the people around them. Substance abuse also interferes with academic, co-curricular, and extra-curricular interests and can lead to health, personal, social, economic, and legal problems.

Policy

OCC is committed to a drug-free campus so that students and staff can work in a drug-free environment.

In addition to our commitment to providing a drug-free environment, education, and help to students, there are state laws and the College Code of Conduct which specifically prohibit the use and possession, distribution or sale of drugs or alcohol on college property or at any college-sponsored activity or event. These rules also describe the penalties and disciplinary actions which may come

into play when violations occur for those who abuse or don't take positive steps to get help.

Information on the laws and Code of Conduct is available at the Dean of Students Office.

The District policy is that all use of alcohol and other drugs is prohibited on District property and at any college-sponsored activity regardless of its location. Furthermore, the use of tobacco is prohibited in all District buildings and vehicles and in designated outdoor areas.

Counseling

You can meet with a mental health counselor or registered nurse at the Student Health Center if you have questions or concerns. In addition, a number of OCC staff members are available to refer you to the help you need.

Referrals

The Student Health Center provides information and referrals to community resources, support groups, and social services. Visit the Student Health Center web site on the OCC home page.

Information

OCC offers several classes that focus on alcohol and drugs.

- Health Education A100 — Health Education
- Health Education A122 — Drugs, Health, & Society
- Health Education A138 — Drugs and Sports
- Counseling A103 — Intro to College Athletics

Self-Help Resources

A wide variety of self-help groups meet on campus, or in the community. All of them are open to you if you wish to take advantage of their services. Visit the Student Health Center for current referrals.

Confidential professional counseling for all active employees and family members is available. Employees can contact the Employee Assistance Program 24-hour helpline at 1-800-635-3616.

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 located in Watson Hall.



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 online at orangeoastcollege.edu or in person.

New students take assessment tests in English, reading and math. A chemistry placement test is also offered. 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 must participate in 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 the 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 10th grade may inquire through the appropriate Division Office regarding their eligibility for specific advanced coursework. If approved, the student must obtain the permission of the respective Division Dean and faculty and attend an appointment scheduled through the Office of the Dean of Enrollment Services, accompanied by a parent.

International students who are, or intend to be under F-1 visa status should contact the International Center directly for entrance requirements (please see page 31.)

Application

An application for admission is required for all students. Application forms may be accessed through the OCC web site at www.orange-coastcollege.edu or picked up in person at the OCC Admissions Office. International students

should contact the International Student Center regarding admission to the college.

Acceptance of Transfer Credit/ Transcripts from Other Colleges

Students who have completed coursework, especially English and/or mathematics, at another regionally accredited college or university should submit their transcripts for evaluation to the Admissions or Matriculation windows in the Watson Hall Enrollment Center before enrolling in any course with an enforced pre-requisite.

Official college transcripts from accredited institutions are required in order for the student to receive credit toward the Associate Degree, Certificates of Achievement, transfer certification, all awards/credit and advisement. For the purposes of this catalog, "accredited institutions" means those institutions accredited by one of the six U.S. regional accrediting associations. The six regional associations are:

- New England Association of Schools and Colleges
- Middle States Association of Colleges and Secondary Schools, Commissions on Institutions of Higher Education
- North Central Association of Colleges and Schools, Commission on Colleges and Universities
- Northwest Association of Secondary and Higher Schools, Commission on Higher Schools
- Southern Association of Colleges and Schools
- Western Association of Schools and Colleges, Accrediting Commission for Senior Colleges and Universities and Accrediting Commission for Junior Colleges

Orange Coast College reserves the right to evaluate work completed at other colleges in accordance with campus policies.

Official student transcripts of record 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, located on the 3rd floor of Watson Hall 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 Dean, Enrollment Services for additional information.

Matriculation

Matriculation is a partnership between students and the college. The program is designed to assist students in planning, choosing, and achieving their education goals. The process provides orientation, academic advising, registration information, personal counseling, and on-going educational planning. This process brings a student into an agreement with the College for the purpose of realizing educational goals through programs, policies, services, and requirements. The primary focus of the Matriculation Program is to promote students' success through academic and personal growth, as indicated in the College's Matriculation and Master Plans.

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. Additionally, courses taken without prior completion of the prerequisite may be denied credit upon transfer to a CSU or UC per articulation agreements, either at time of admission or upon petition for graduation.

An “Advisory on recommended preparation” (listed as “Advisory”) 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 for student success. However, unlike a prerequisite or corequisite, “Advisory” 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 no later 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. The burden of proof is upon the student.

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

Decisions on challenges of pre-requisite/ 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 and Placement Test Requirements

Placement testing for English and mathematics is required for all non-matriculated students prior to enrolling in courses. All students must either place into a course or successfully complete the pre-requisite prior to enrolling. Students may not register in a course level higher than what is indicated on their placement test results. Orange Coast College, in compliance with California Community College State Chancellor’s Office regulations, has validated the assessment process used to place students and found it to correlate highly with a student’s ability to perform at the level indicated. However, the College recognizes that, on occasion, the assessment process is not always the only indicator to determine a student’s placement, and in some cases, other factors may need to be considered. Therefore, students may submit an appeal for review for consideration of higher placement if they believe their placement is inaccurate. Appeal forms are located in the respective Division office and must be made prior to enrolling in the course.

Since the standard English test may not accurately measure non-native English speakers’ reading, writing, and speaking skills, the College recommends that non-native English speakers take the ESL Assessment Test, which can correctly place the student in ESL or English courses.

Contact the Assessment Center in Watson Hall for information about scheduling an appointment for placement testing. International students should contact the International Center prior to scheduling an appointment.

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 A010 prerequisite:

- Cardiovascular Technology/Electrocardiology/Echocardiology
- Diagnostic Medical Sonography
- Dietetic Technician
- Neurodiagnostic Technology
- Polysomnographic Technology
- Radiology Technology
- Respiratory Care
- Speech-Language Pathology Assistant

Allied Health A010 is optional for the following programs

- Dental Assisting – Registered
- Emergency Medical Technology
- Medical Assisting
- Medical Transcription
- Student Health Assistant

Admission

Taking Allied Health A010 is the optimal method to determine career choice and application to a specific program. Students should take Allied Health A010 as early as possible and should take this course prior to completing other General Education or prerequisite classes. Admission criteria includes date of application on a first come, first served basis and date of completion of specific required prerequisite courses. Applicants to impacted programs will need to complete (or show proof of completion) of all Associate in Science general education requirements prior to program entry.

Clinical

- Admission into the clinical phase of a program requires students be 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 in Science degree. Students will need to complete (or show proof of completion) of all Associate in Science degree general education requirements

Course Recency for Programs that Require the Following Prerequisites

Biology A221 – 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 A180 – 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 A111 – 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 determined 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 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 \$20 per unit (at time of publication) for students meeting California residency requirements.
- \$30 parking permit

- \$16 health service fee
- \$15 College Services Charge*
- Material fees as listed in the current class schedule
- All fees subject to change without notice. The state legislature may increase enrollment fees in 2009

* The College Services Charge provides services and benefits, e.g., Bookstore buyback, Robert B. Moore Theater 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's Office prior to registration (714) 432-5730.

Students not meeting **California residency requirements** are required to pay a per unit non-resident fee in addition to the enrollment fee. Students who are citizens and residents of other countries are required to pay an additional 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:

- 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

State regulations require that students must withdraw prior to the first 10% of a course in order to be eligible for a refund of fees. Students can view refund deadlines at MyOCC or in the printed class schedule. Official withdrawals by the refund deadline will result in a credit to the student's registration account of the fees associated with the course that was dropped.

Students withdrawing from all classes may request a refund of all fees paid including the Student Health Services Fee, the College Services Charge, non-resident tuition, etc., provided the student withdraws prior to the refund deadline for each class in which he/she was enrolled. To receive a refund of the Parking Fee, the student must withdraw from all classes and the parking decal must be returned/postmarked on or before the earliest refund deadline date of the classes in which the student is enrolled.

In the case of cancelled classes, registration fees associated with that class will be refunded. If the only class a student is taking is cancelled, the parking decal must be returned within 14 days of the class cancellation date.

Refunds will be automatically processed beginning the third week of the term and each week thereafter until the end of the term. Refunds will be made by check and mailed to the student's address on file.

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-immigrant holding a status 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 restrictive immigration status 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 non-immigrant 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 or 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 outside 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 non-immigrant status that precludes them from establishing residency in California may be restricted in their enrollment and will have to pay non-resident tuition. In addition, students with such status who are citizens of other countries 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

Orange Coast College (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 international students to study in the United States and learn about our culture and us.

Interested international students should request application for admission by mail from the International Center at Orange Coast College, P.O. Box 5005, Costa Mesa, California 92628-5005 USA or by emailing the International Center at intctr@cccd.edu. An application packet can also be downloaded by visiting the International Center's link on the prospective student section of the Orange Coast College's Web Site at: www.orangecoastcollege.edu.

Our admission process allows for acceptance to OCC during the Fall, Spring, and Summer semester or term. Applicants must submit all required documents prior to the application deadline for the semester in which they wish to attend. Approximate semesters start dates are late August for Fall, late January for Spring, and early June for Summer semesters.

The following are admission requirements for international students who are, or intend to be under F-1 visa status:

- Completed and signed international student application
- Application fee in the amount of \$30 in U.S. dollars
- Passport-size photograph
- Typed written statement (1-2 pages): Applicants can discuss their academic goals, experiences, and the reasons for their interest in OCC
- Academic records: All evidence of academic records equivalent to high school graduation or higher, demonstrating successful academic achievement. 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.

- English requirement: A score of 500 (paper-based) or 173 (internet-based) or 61 (internet-based) on the Test of English as a Foreign Language (TOEFL) or the EIKEN STEP Pre-First Grade level. For applicants in the U.S., an equivalent placement on the OCC's English Assessment Test (EAT) can be used to satisfy the English requirement. Applicants in the U.S. can also use the appropriate level in one of the English language programs with which Orange Coast College has agreement to satisfy this requirement. Applicants can contact the International Center for a complete list of these schools
- Confidential financial support documentation: Sponsor's information and verification of support, as well as an original bank statement verifying sufficient amount is required. Additional documentation may be required upon reviewing applicant's file. Financial forms can be obtained from the International Center or downloaded from the International Center web site at: http://www.orangecoastcollege.edu/prospective_student/international_students
- Immigration-related documents: 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 unauthorized employment. International students must obtain approval from the DHS and the International Center before they engage in any on- or off- campus employment.

For further information, please contact the International Center by telephone at (714) 432-5940 or via e-mail at intctr@cccd.edu or visit the International Center located on the 2nd floor of Watson Hall.

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 a valid status that does not expire before the end of the term for which they are enrolling.

- A — Career Diplomat
- E — Foreign Investor
- G — International Treaty Organization Representatives
- H — Temporary Worker
- 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 Department of Homeland Security (DHS) 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.

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. Veterans may apply for evaluation of this credit by presenting authentic military service and training records to 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 Degrees; 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 respective Division Office.

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 Associate Degrees.

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 credit 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 Student Records in the Watson Hall Enrollment Center. Submission of official exam results is required prior to any evaluation and posting of credit. 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 Degree 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 window in the Watson Hall Enrollment Center. Advance 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 guarantee 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 by submitting official AP test scores to the Student Records window in the Watson Hall Enrollment Center. 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 A110
ART (HISTORY)	3	6	ART A100 & A101
BIOLOGY	3	4	BIOL A100
CHEMISTRY	3	5	CHEM A110
ECONOMICS			
Macroeconomics	3	3	ECON A180
Microeconomics	3	3	ECON A185

ENGLISH			
Composition & Lit	3	3	ENGL A100
Language & Comp	3	3	ENGL A100
FOREIGN LANGUAGE			
French Lang	3	5	FREN A185
German Lang	3	5	GRMN A185
Spanish Lang	3	5	SPAN A185
GOVERNMENT/POLITICS			
Comparative	3	3	PSCI A185
United States	3	3	PSCI A180
HISTORY			
American	3	6	HIST A170 & A175
European	3	6	HIST A180 & A185
MATHEMATICS			
Calculus AB	3	4	MATH A180
Calculus BC	3	4	MATH A180
Calculus BC	5	4	MATH A180 & A185
Statistics	3	3	MATH A160
MUSIC			
Theory	3	3	MUS A115
PHYSICS			
Physics B	3	4	PHYS A110 & A111
Physics C1 (Mech.)	3	4	PHYS A120
Physics C2 (Elect. & Magnetism)	3	4	PHYS A125
PSYCHOLOGY			
Psychology	3	3	PSYC A100

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. Request a Learning Contract from the respective Division Office.

2. Request 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. Ask the instructor and Division Dean to approve the contract.
4. Take the contract personally to the Student Records window in the Watson Hall Enrollment Center. If the contract is approved, the enrollment Center will officially enroll the student in the course.
5. After the student completes the coursework, the instructor will certify the earned grade. Student Records 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 A291-A295. In unusual cases, students may enroll in directed studies without completing the pertinent beginning courses. Directed Studies students must ask the instructor to 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
A291	1	054
A292	2	108
A293	3	162
A294	4	216
A295	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). 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.

The International Center also provides additional information on study abroad opportunities that are arranged through third party entities. For more information, please visit the International Center located on the second floor of Watson Hall. It is students' responsibility to verify that the courses taken abroad are transferable.

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 transferring 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 at Orange Coast College. These credits are subject to review by those respective colleges and universities to which the student wishes to transfer.

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 Identity Card (ISIC), and the International Youth Travel Card (YTC). These cards provide access to special discounts and benefits while traveling internationally. For pricing information and eligibility requirements, please call 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 official military service and training records, including a copy of discharge papers, to Veteran's Services in the Watson Hall Enrollment Center. 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 Degree; however, under no circumstances will OCC graduate a student who has not completed 12 units of Orange Coast College coursework.

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 follows:

Grade	Significance	Grade Points Per Unit
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing; less than satisfactory	1
F	Failing	0
P	Pass; at least satisfactory	Hours awarded; not counted in GPA
NP	No Pass; not satisfactory or failing	No Hours awarded; not counted in GPA

The grade point average is calculated by dividing the number of quality points earned by the number of GPA hours for the grades of A, B, C, D, F. The grades of P and NP, and the symbols of IP, Incomplete (I) and W are not used in the grade point average calculation.

A disciplinary grade of "F" may be assigned for

violations of the Academic Honesty Policy, consistent with the District Student Code of Conduct.

The following non-evaluative symbols may be used as defined. These symbols are not used when calculating the grade point average.

Abbreviation/Definition

W (Withdraw)

1. A "W" grade will be assigned for students who officially withdraw prior to the end of the twelfth week of the term for full semester classes, the sixth week of the term for eight-week classes, and 75 percent of the class for all other courses.
2. No notation ("W" or otherwise) is made on the permanent record of a student who withdraws by Friday of the fourth week of the term for full semester classes, or 30 percent of a class for all other classes.

Specific drop deadline dates can be found in the printed class schedule or on the web at MyOCC (Student Class Program). Students are responsible for withdrawing from a class within the appropriate time to avoid an unsatisfactory grade. **Students may drop a class using the MyOCC website, or by letter to the Enrollment Center Office postmarked prior to the drop deadline.**

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 by the last day of the semester.

- a. Most of the academic work must be completed and there must be a justifiable reason for receiving the incomplete such as an accident or illness.
- b. The condition for removal of the incomplete shall be stated by the instructor in a written record and recorded as an IB, IC, ID, IF, or INP depending on what grade the incomplete will revert to if the student doesn't meet the condition for removal within the stated period of time.

- c. All academic work must be completed and submitted to the instructor per the written agreement with the student, which will be no longer than one year following the end of the semester in which it was assigned.
- d. An incomplete not made up within the specified timeline will revert to the alternate grade assigned by the instructor when the "I" was assigned.
- 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 point 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.

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 pass/no pass request form through Student Records in the Watson Hall Enrollment Center.

- 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 "NP" are considered unsatisfactory for progress probation or dismissal.
- In courses where one performance standard determines unit credit, only a "P" or "NP" is given

Students may repeat a course in which they received a “NP”, “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. A student can request to have the first substandard grade for a repeated course removed from the grade point average calculation, by filling out a form in the Enrollment Center.

Course Repetition

For courses in which a “D”, “F”, “NP”, or “W” was recorded on the student’s academic transcript, the student may repeat the course one additional time only within the Coast District (Orange Coast College, Golden West College, or Coastline Community College). 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. If approved, students will register for the course at the end of the priority registration period. Petitions are available in the Counseling Office, located on the 3rd floor of Watson Hall, and should be filed at least two weeks prior to the semester start date. Students must meet all registration deadlines.

For courses in which an “A”, “B”, “C”, or “P” was recorded on the student’s academic transcript, the student may petition the OCC Academic Petition Council for approval to repeat the course only if there is a need to repeat the course due to a recency requirement. The student must document the need to repeat the course (i.e. for admittance into a program, licensing requirement, etc.)

If a course is repeated after the student received a substandard grade the student may submit a Petition to Exclude Sub-Standard Grade to have the sub-standard grade (“D” or “F”) excluded from their grade point average. The course must be repeated in the Coast Community College District or at another regionally accredited college and the grade recorded in the latest semester the course was taken will count in the grade point average regardless of which grade is higher. Although the previous grade will not count in the grade point average, the grade will still appear on the student’s academic transcript.

If an incomplete grade (“IB”, “IC”, “ID”, “IF”, or “INP”) was recorded on the student’s academic transcript, the student may not re-enroll in the course. The incomplete grade is changed

according to the requirements as set forth by the faculty member who assigned the incomplete (see Incomplete under Grades and Grade Points for more information.)

Repeatability

Courses designated as repeatable may be repeated for credit; however, they may not be taken concurrently. A course may be designated as repeatable 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 segment differs. Students who are unsuccessful (W, D, F, NP) in the first two enrollments in a course are automatically blocked from enrollment in that course.

Associate Degree

Orange Coast College awards the Associate Degree to students who have met all the requirements for graduation. OCC offers the Associate in Arts and the Associate in Science Degrees. Check with your counselor to determine which degree you should complete and to obtain a grad check to attach to your graduation petition. **The Associate Degree is not automatically**

awarded. A petition must be filed in the Watson Hall Enrollment Center Student Records window at the beginning of the semester in which the student completes the final requirements. Forms are also available online.

Petitioning periods for the Associate Degree are:

Summer - June 1 through July 15

Fall - August 15 through October 15

Spring - December 1 through March 15

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. Forms are also available online. Petitioning periods are listed below.

2. Certificate of Specialization: Approved programs of less than 18 units. Certificates of Specialization 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 students complete all of the required courses and then provide a copy of the transcript. Some divisions will allow applications for Certificates of Specialization prior to finishing. Certificates of Specialization are not printed on official academic transcripts.

Petitioning periods for Certificates of Achievement are:

Summer - June 1 through July 15

Fall- August 15 through October 15

Spring- December 1 through March 15

- 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 Associate Degree and/or Certificate Requirements

Students wishing to substitute or waive courses which satisfy the Associate Degree or Certificate of Achievement requirements must see a counselor and petition the Academic Petition Council. Counselors are located on the third floor of Watson Hall.

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. 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.

Academic Standards

Standards of academic excellence are cornerstones of learning institutions and therefore, should be maintained and promoted. It is the responsibility of all members of the college community 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 to avoid 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.

Student Responsibility

It is the student's responsibility to be aware of and adhere to State-mandated drop deadlines and deadlines to request a pass/no-pass option. In addition, students should be aware of and adhere to the deadlines for fee-payment and refund of fees. Students should verify all transactions. Students should check their MyOCC page, particularly their Class Program, and their CCCD issued email account often for important updates and information. The CCCD email account and MyOCC message boards are the official communication methods that instructors and staff use to send students important information.

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 (714) 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 additional information, please contact the Office of Instruction in the Administration Building. Your official transcript will show that you are on the Honors List.

Honors Program

The Orange Coast College Honors Program is designed to provide an enriched collegiate experience for highly motivated students. A major objective is to prepare students for transfer; however, the goals transcend this aim. The program celebrates the collaborative effort of students and instructors in environments that promote student initiative, knowledge, curiosity about the world of ideas, and concern for current social issues.

Honors Program benefits include: close interaction with highly motivated instructors and students, and access to special activities, privileges and scholarships. In addition, students who fulfill program completion requirements qualify for guaranteed priority consideration for transfer admission to several four-year institutions and honors designation on transcripts. Among the requirements: a minimum 3.25 GPA in all transferable coursework, with at

least eighteen units of honors credit from three different campus departments.

OCC honors courses are challenging, offering more intensive study than is possible in most non-honors sections and stressing freedom of inquiry and student discovery. *OCC honors courses are open to all students*, whether or not they are enrolled in the Honors Program itself. In addition, there are no prerequisites for honors sections other than those that apply to non-honors sections of the same course.

Admission into the Honors Program is not automatic; all students must complete an application, and it is possible to apply prior to taking any honors courses. Because past performance does not always indicate future potential, we encourage students who do not currently meet admission requirements to work toward becoming Honors Program students by improving their GPA's in honors and non-honors course sections.

Please visit the honors program website (occhonors.org) or call (714-432-5601) for more information.

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, NP'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, NP'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 "P" instead of a letter grade
- No grade lower than "C" since Initial Membership (all D's, F's, NP'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 grades of "A" or "B" in all OCC math coursework numbered 157 or higher (except for Math A160 and Math A220), has 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 out-

standing student achievement in OCC social and behavioral 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 3.0, 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. Acceptance enrolls the student in 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 coursework 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 (transcript), 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 NP).

Students who have earned a satisfactory grade (A, B, C, or P) 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 make an appointment to meet with a counselor for academic renewal. 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 "NP" 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 "NP" 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



academic potential in a traditional high school setting. Classes are small, and individual attention is emphasized. High school classes are conducted from 7:25 a.m. - 2 p.m.

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 phone the Middle College High School Counseling Office at (714) 432-5732.



Graduation Requirements

INSTITUTIONAL LEVEL STUDENT LEARNING OUTCOMES (ISLOs):

Students receiving an associate's degree from Orange Coast College will demonstrate competency in four core outcome areas:

1. Communication
2. Thinking Skills
3. Global Awareness
4. Personal Development and Responsibility

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, P, NP, 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.

REQUIREMENTS FOR ADDITIONAL ASSOCIATE DEGREES:

- A. General Education requirements earned for one Associate Degree may be applied toward an additional Associate Degree.
- B. A student who holds a degree from any regionally accredited institution may earn an additional Associate Degree in a specific major.
- C. A candidate for an additional Associate Degree must complete the requirements for a separate major at Orange Coast College, including an additional 12 or more units of credit which must include a minimum of 3 units from the major at Orange Coast College beyond the requirements for the prior or additional degree.
- D. A student must complete all the required courses listed in the current catalog for the specific major(s) and general education.
- E. In the case of programs that offer two or more options, a student may earn an additional Associate Degree by completing the requirements of those options.
- F. Only one Associate in Arts Degree will be awarded to a student by Orange Coast College.

Associate in Arts Graduation Requirements - 2009-2010

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.

For information regarding earning an Associate in Arts Degree, please see the Graduation Requirements on page 43. Only one Associate in Arts Degree will be awarded to a student by OCC.

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 the approved list of courses for 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 A100 or above.

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 A100 **OR**

Political Science A180 or A180H AND
History A100 or A170 or A170H or A175 or
A175H or A177 or Economics A177

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 A180
Psychology A100, A100H, A130, A220,
A260

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 A100 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:

Psychology A160, Machine Technology
A121, any math course except A005, A008,
A010, A021 and A220

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 A100, A100H, A102, A110,
A150, A190,
Art A108
Dance A130, A133, A135, A136, A137,
A138,
Early Childhood A126
English A152, A173
Ethnic Studies A100, A150, A190
Fashion A125
Food and Nutrition A185
History A101, A110, A150,
Philosophy A110, A120
Psychology A105
Religious Studies A110, A120, A140, A150,
A160, A185
Sociology A115, A150, A180, A180H,
A190,
Speech Communication A155

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 2009-2010

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 A100 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 A100 with a grade of "C" or better

2. Communication and Analytical Thinking

Business A139

Digital Media Arts and Design A181

Electronic Technology A047

English A101, A101H, A102, A102H, A105, A109

Mass Communications A100

Machine Technology A121

Any Math course except A005, A008, A021

Philosophy A150, A220

Psychology A160, A270

Speech Communication A100, A110, A120, A130

Technology A040

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 A185, A185 & A185L

Astronomy A100, A100H, A100 & A100L, A100H & A100L, A101, A102, A103

Biology A100, A101, A114, A125, A181, A181H, A182, A182 & A182L, A183, A183 & A183L, A185, A210, A220, A220H, A221

Chemistry A100, A100 & A100L, A110, A130, A180

Ecology A100

Food and Nutrition A195

Geography A180, A180H, A180 & A180L, A180H & A180L

Geology A100, A100H, A100 & A100L, A100H & A100M, A100 & A100M, A100H & A100L, A106, A160, A180, A185, A185 & A185L

Marine Science A100, A100 & A100L, A100H & A100M, A100 & A100M, A100H & A110L, A180, A180 & A180L, A185, A185 & A185L

Natural Science A100, A100 & A100A, A100 & A100G, A110, A112

Ornamental Horticulture A100

Physics A110, A110 & A111, A120, A130, A185

Psychology A250

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 A190

Architectural Technology A290, A296

Art A100, A100H, A101, A101H, A102, A103, A104, A107, A108

Dance A160, A170, A200

English A119, any literature course A141 through A285

ESL A121, A125, A131, A135, A151, A155, A157, A160, A199

Film/Video A100, A103, A150

Foreign Language - any course numbered A180 through A285

History A150, A180, A180H, A185, A185H

Humanities A100, A101, A101H

Interior Design A180, A190

Mass Communication A100

Music A100, A105, A109, A173, A180

Philosophy A100, A110, A115, A118, A120, A150, A165, A185

Photography A101, A123, A130

Religious Studies A100, A110, A115, A120, A130, A140, A150, A180

Speech Communication A120

Theater Arts A100, A101, A105

2. Active Participation

Art A110, A115, A120, A120H, A125, A141, A142, A145, A147, A150, A263, A269

Construction Technology A116

Dance A101, A106, A107, A110, A115, A118, A120, A125, A130, A133, A135, A136, A137, A138, A150, A160, A195, A203, A211

Digital Media Arts and Design A181

English A119, A121, A122, A124, A126, A127, A131

Film/Video A110

Music A115, A116, A120, A129, A132, A133, A140A, A141, A144, A145, A150, A230, A233, A234

Photography A120

Speech Communication A110, A120, A150

Theatre Arts A106, A110, A170

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 A100 **OR**

b. Political Science A180 or A180H **AND** one of the following courses: History A100 or A170 or A170H or A175 or A175H or A177, Economics A177

2. Social and Economic Institutions

Anthropology A100, A100H, A102, A105, A110, A150, A280, A285

Economics A100, A180, A185

Ethnic Studies A100, A150, A190

Gender Studies A100, A120, A130, A150, A165, A187

Geography A100, A100H, A160, A185

History A101, A102, A102H, A103, A103H,

A110, A115, A128, A140, A145, A179, A180, A180H, A185, A185H, A187, A190, A195, A197, A198

Psychology A105

Political Science A101, A110, A185

Sociology A105, A115, A150, A180, A180H, A185, A185H, A190

Speech Communication A165

3. Behavioral Science

Human Development A180

Psychology A100 or A100H, A130, A220, A260

AREA E: LIFE SKILLS

One course from:

Accounting A100

Allied Health A130

Anthropology A105

Business A100, A105, A120, A125*

Computer & High Technology A100

Computer Information Systems A100, A122

Counseling A102, A110, A120, A135

Economics A110

Emergency Medical Technology A100

Family & Consumer Science A180

Fashion A170

Food & Nutrition A136, A140, A170, A185

Health Education A100, A111, A112, A122, A134, A136

Human Development A190

Interior Design A100

Philosophy A120

Physical Education A134

Psychology A110, A140, A165, A200, A215

Religious Studies A120

Sociology A105, A110, A165

Speech Communication A100, A155, A170

* Does not meet requirement in mathematics for graduation

AA General Education - Option 2

General Education Breadth Requirements for California State University (CSU) 2009-2010

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 A110 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 A150 and Ethnic Studies A150) 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 2009 THROUGH SUMMER 2010.** For courses taken prior to Fall 2009, 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 A100, A110

A2 Written Communication

English A100

A3 Critical Thinking

English A101, A101H, A102, A102H, A109
Mathematics A220
Philosophy A150, A220
Speech Communication A130

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 A100, with a lab, (Natural Science A100A or A100G) will satisfy B1, B2 and B3.

B1 Physical Science

Astronomy A100, A100H, A100 & A100L, A100H & A100L, A101, A102, A103
Chemistry A100, A100 & A100L, A110, A130, A180
Geography A180, A180H, A180 & A180L, A180H & A180L
Geology A100, A100H, A100 & A100L, A100H & A100M, A100H & A100L, A100 & A100M, A106, A160, A180, A185, A185 & A185L
Marine Science A185, A185 & A185L
Natural Science A100, A100 & A100A, A100 & A100G, A110, A110 & A100A, A112
Physics A110, A110 & A111, A120, A130, A185

B2 Life Science

Anthropology A185, A185 & A185L
Biology A100, A125, A181, A181H, A182, A182 & A182L, A183, A183 & A183L, A185, A210, A220, A220H, A221
Ecology A100
Marine Science A100, A100H, A100 & A100L, A100H & A100M, A100 & A100M, A100H & A100L, A180, A180 & A180L
Natural Science A100
Ornamental Horticulture A100
Psychology A250

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 A100, A103, A104, A106, A120, A130, A154, A157, A160, A160H, A170, A180, A180H, A182H, A185, A185H, A230, A235, A260, A280, A280H, A285, A285H, A290H
Psychology A160

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 A290, A296
Art A100, A100H, A101, A101H, A102, A103, A104, A107, A108, A110, A120, A125, A141, A142, A145, A147, A150, A263, A269
Dance A101, A107, A110, A120, A125, A130, A133, A150, A160, A200, A211
Digital Media Arts and Design A181
Film/Video A100, A103, A150
Humanities A100#
Interior Design A180, A190
Music A100, A105, A109, A115, A116, A129, A140, A141, A144, A145, A173, A180
Photography A101, A120, A130
Theatre Arts A100, A101, A105, A106, A110, A170

C2 Humanities

Anthropology A190
 English A119, A141, A141H A143, A143H,
 A147, A147H, A148, A148H, A150,
 A150H, A151, A151H, A152, A152H,
 A156, A156H, A160, A160H, A161,
 A161H, A170, A170H, A172, A173,
 A173H, A175, A175H, A176, A176H,
 A187, A187H, A280, A280H, A285,
 A285H
 Ethnic Studies A100
 French A180, A185, A280, A285
 German A180, A185, A280, A285
 Hebrew A180
 History A101, A102, A102H, A103, A103H,
 A180, A180H, A185, A185H
 Humanities A100, A101, A101H
 Italian A180, A185, A280, A285
 Japanese A180, A185, A280, A285
 Mass Communications A100
 Mathematics A220
 Philosophy A100, A110, A115, A118,
 A120, A165, A185, A220
 Religious Studies A100, A110, A115, A120,
 A130, A140, A150, A180
 Spanish A180, A180H, A185, A185H,
 A280, A280H, A285
 Speech Communication A110, A120,
 A150A
 Vietnamese A180, A185, A280, A285

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 A100, A100H, A102, A110,
 A190, A280, A285

D2 Economics

Economics A100, A110, A180, A185

D3 Ethnic Studies

Anthropology A150
 Ethnic Studies A100, A150, A190
 History A101, A150
 Sociology A150, A190

D4 Gender Studies

Gender Studies A100, A120, A130, A150,
 A165, A187
 History A176, A187
 Psychology A105
 Speech Communication A165

D5 Geography

Geography A100, A100H, A160, A185

D6 History

Economics A177
 History A100, A101, A102, A102H, A103,
 A103H, A110, A115, A128, A145,
 A170, A170H, A175, A175H, A177,
 A179, A180, A180H, A185, A185H,
 A190, A195, A197, A198

D7 Interdisciplinary

Health Education A122
 Human Development A180
 Psychology A165 or Sociology A165
 Psychology A105, A130
 Sociology A105
 Speech Communication A155

D8 Political Science

Political Science A101, A110, A180,
 A180H, A185, A188, A190

D9 Psychology

Psychology A100, A100H, A185, A220,
 A260, A270

D10 Sociology

Sociology A110, A115, A180, A180H,
 A185, A185H

Activity

Dance A139, A143, A144, A145, A146,
 A147, A148, A149
 Marine Activities A147, A148, A149, A160
 Physical Education A102, A104, A105,
 A107, A108, A109, A110, A111, A112,
 A114, A115, A119, A120, A121, A122,
 A125, A143, A146, A147, A148, A149,
 A150, A154, A155, A160, A161, A167,
 A173, A174, A177, A178, A179, A190,
 A191, A192, A194, A196, A197, A198,
 A221, A222, A226, A235, A236, A237,
 A238, A239, A240, A241, A242, A243,
 A244, A245, A246, A250, A251, A252,
 A253, A254, A257, A258, A259, A260,
 A261, A263

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

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 A100, A170, A170H, A175, A175H, or A177 or Economics A177 in Area D6 and Political Science A180 or A180H in Area D8 will fulfill this requirement.

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 A105
 Counseling A102, A109, A110, A120, A135
 Economics A110
 Emergency Medical Technology A100
 Family & Consumer Science A180
 Food & Nutrition A136, A140, A170
 Health Education A100, A112, A134, A136
 Human Development A180
 Physical Education A134
 Psychology A105, A110, A130, A140,
 A165, A200, A215
 Sociology A105, A165
 Speech Communication A100, A170

AA General Education - Option 3 Intersegmental General Education Transfer Curriculum (IGETC) - 2009-2010

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 P/NP.

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 2009 THROUGH SUMMER 2010.** For courses taken prior to Fall 2009, 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 A100

Group B: Critical Thinking-English Composition

English A101 or A101H, A102 or A102H, A109

Philosophy A150

Group C: Oral Communication (CSU ONLY)

Speech Communication A110

AREA 2: MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

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

Psychology A160

Math A130, A154, A157, A160 or A160H, A170, A180 or A180H, A182H, A185 or A185H, A230, A235, A260, A280 or A280H, A285 or A285H, A290H

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 A290 or A296

Art A100 or A100H, A101 or A101H, A102, A103, A104, A107, A108, A110

Dance A200

Film/Video A100

Music A100, A105, A109, A115, A173, A180

Photography A130

Theatre Arts A100 or A101, A105

Group B: Humanities

Economics A177

English A141 or A141H, A143 or A143H, A147, or A147H A148 or A148H, A150 or A150H, A151 or A151H, A152 or A152H, A156 or A156H, A160 or A160H, A161 or A161H, A170 or A170H, A173, A173H, A175 or A175H, A176 or A176H, A187 or A187H A280 or A280H, A285 or A285H

Ethnic Studies A150

French A185, A280, A285

Gender Studies A187

German A185, A280, A285

History A100, A101, A102 or A102H, A103 or A103H, A110, A115, A128, A145, A150, A170 or A170H, A175 or A175H, A177, A179, A180 or A180H, A185 or A185H, A187, A190, A195

Humanities A100, A101 or A101H

Italian A185, A280, A285

Japanese A185, A280, A285

Mass Communications A100

Philosophy A100, A110, A115, A118, A120, A165, A185

Religious Studies A100, A110, A115, A120, A130, A140, A150, A180

Spanish A185 or A185H, A280 or A280H, A285,

Vietnamese A185, A280, A285

AREA 4: SOCIAL AND BEHAVIORAL SCIENCES

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

4A Anthropology

Anthropology A100 or A100H, A102, A110, A150, A190, A280, A285

4B Economics

Economics A100, A180, A185

4C Ethnic Studies

Ethnic Studies A100, A190
Sociology A190

4D Gender Studies

Gender Studies A100, A130, A187
History A187
Psychology A105

4E Geography

Geography A100 or A100H, A160, A185

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 A180
Psychology A165 or Sociology A165
Speech Communication A155

4H Political Science

Political Science A101, A110, A180 or A180H, A185

4I Psychology

Psychology A100 or A100H, A185, A220, A260

4J Sociology

Sociology A110, A115, A150, A180 or A180H, A185 or A185H, A190

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 A100 or A100H, A100 & A100L or A100 & A100M, A100H & A100M, A100H & A100L, A101, A102, A103

Chemistry A100, A100 & A100L, A110, A130, A180

Geography A180 or A180H, A180 & A180L or A180H & A180L

Geology A100 or A100H, A100 & A100L or A100H & A100M or A100 & A100M or A100H & A100L, A160, A180, A185, A185 & A185L

Marine Science A185, A185 & A185L

Natural Science A100#, A100 & A100A, A100 & A100G, A112

Physics A110, A110 & A111, A120, A130, A185

Group B: Biological Science

Anthropology A185, A185 & A185L

Biology A100, A125, A181 or A181H,

A182, A182 & A182L, A183, A183 &

A183L, 185, A210, A220 or 220H, A221

Ecology A100

Marine Science A100 or A100H, A100 &

A100L or A100H & A100M or A100 &

A100M or A100H & A100L, A180, A180

& A180L

Natural Science A100#

Psychology A250

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 A180. 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 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).

5. A passing grade on the international O Level or A Level exam in a language other than English.

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 can be double counted in Area 3 or 4. To meet the CSU requirement, students should take Political Science A180 or A180H **AND** one of the following courses: History A100, A170, A170H, A175 A175H or A177 or Economics A177.

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.*

Associate in Science Graduation Requirements - 2009-2010

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.

For information regarding the requirements for an additional Associate Degree, please see the Graduation Requirements on page 43. Only one Associate in Arts Degree will be awarded to a student by OCC.

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 from the approved list of courses for the following disciplines:

Architecture	Mathematics
Biology	Natural Sciences
Chemistry	Physics
Engineering	
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 A100 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 A047, Psychology A160, Machine Technology A121 or any math course except A005, A008, A010, A021 and A220. 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 **A100***, with a grade of "C" or better

A2 Communication and Analytical Thinking

Business A139

Computer Science A115

English **A101***, **A101H***, **A102***, **A102H***, **A109***

Mathematics **A100**, **A103**, **A104**, **A106**, **A120**, **A130***, **A154***, **A157***, **A160***, **A160H***, **A170***, **A180***, **A180H***, **A182H***, **A185***, **A185H***, **A230***, **A235***, **A260***, **A280***, **A280H***, **A285***, **A285H***, **A290H***

Philosophy **A150***

Philosophy/Mathematics **A220**

Psychology **A160***, A270

Speech Communication **A100**, **A110***, **A130**

AREA B: PHYSICAL AND BIOLOGICAL SCIENCES

3 semester units (or 4 quarter units).

Anthropology **A185***

Astronomy **A100***, **A100H***, **A101***, **A102***, **A103***

Biology **A100***, A101, **A125***, **A181***, **A181H***, **A182***, **A183***, **A185***, **A210***, **A220***, **A220H***, **A221***

Chemistry **A100***, **A110***, **A130***, **A180***

Ecology **A100***

Food and Nutrition A195

Geography **A180***, **A180H***

Geology **A100***, **A100H***, **A106***, **A160***, **A180***, **A185***

Health Education **A100***
 Marine Science **A100***, **A100H***,
A180*, **A185***
 Natural Science **A100***, **A110**,
A112*
 Ornamental Horticulture **A100***
 Physics **A110***, **A120***, **A130***,
A185*
 Psychology **A250***

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 **A290***,
A296*,
 Art **A100***, **A100H***, **A101***,
A101H*, **A102***, **A103***, **A104***,
A107*, **A108***, **A110***, **A120**,
A120H, **A125**, **A141**, **A142A**,
A145, **A147**, **A150**, **A263A**, **A269**
 Dance **A101**, **A106**, **A107**, **A110**,
A115, **A118**, **A120**, **A125**, **A130**,
A133, **A135**, **A136**, **A137**, **A138**,
A150, **A160**, **A170**, **A200**, **A211**
 Digital Media Arts and Design **A181**
 Film/Video **A100***, **A103**, **A110**,
A150
 Humanities **A100**
 Interior Design **A180**, **A190**
 Music **A100***, **A105***, **A109***,
A115*, **A173***, **A180***
 Photography **A101**, **A123**, **A130***
 Theatre Arts **A100***, **A101***, **A105***,
A106, **A110**, **A170**

C2 Humanities

Anthropology **A190**
 English **A119**, **A141***, **A141H***,
A143*, **A143H***, **A147***, **A147H***,
A148*, **A148H***, **A150***, **A150H***,
A151*, **A151H***, **A152***, **A152H***,
A156*, **A156H***, **A160***, **A160H***,
A161*, **A161H***, **A170***, **A170H***,
A172, **A173***, **A173H***, **A175***,
A175H*, **A176***, **A176H***, **A187***,
A187H*, **A280***, **A280H***, **A285***,
A285H*
 Ethnic Studies **A100**, **A150***,
 French **A180**, **A185***, **A280***,
A285*,
 Gender Studies **A187***
 German **A180**, **A185***, **A280***,
A285*
 Hebrew **A180**
 History **A100***, **A101***, **A102***,
A102H*, **A103***, **A103H***, **A110***,
A115*, **A128***, **A145***, **A150***,
A170*, **A170H***, **A175***, **A175H***,
A177*, **A179***, **A180***, **A180H***,
A185*, **A185H***, **A187***, **A190***,
A195*
 Humanities **A100***, **A101***, **A101H***
 Italian **A180**, **A185***, **A280***, **A285***
 Japanese **A180**, **A185***, **A280***,
A285*
 Mathematics **A220**
 Mass Communications **A100***
 Philosophy **A100***, **A110***, **A115***,
A118*, **A120***, **A165***, **A185***,
A220
 Psychology **A105**
 Religious Studies **A100**, **A110**,
A115*, **A120***, **A130***, **A140***,
A150*, **A180***
 Spanish **A180**, **A185***, **A185H***,
A280*, **A280H***, **A285***
 Speech Communications **A110**,
A120, **A150**
 Vietnamese **A180**, **A185***

AREA D: SOCIAL AND BEHAVIORAL SCIENCES

3 semester units (or 4 quarter units).

American Studies **A100**
 Anthropology **A100***, **100H***, **A102***,
A105*, **A110***, **A150***, **A190***,
A280*, **A285***
 Economics **A100***, **A110**, **A177***,
A180*, **A185***
 Ethnic Studies **A100***, **A150**, **A190***
 Gender Studies **A100***, **A120**, **A130**,
A150, **A165**, **A187***
 Geography **A100***, **A100H***, **A160***,
A185*
 Health Education **A122**
 History **A100**, **A101**, **A102**, **A102H**,
A103, **A103H**, **A110**, **A115**,
A128, **A145**, **A170**, **A170H**,
A175, **A175H**, **A177**, **A179**,
A180, **A180H**, **A185**, **A185H**,
A187*, **A190**, **195**, **A197**, **A198**
 Human Development **A180***
 Political Science **A101***, **A110***,
A180*, **A180H***, **A185***
 Psychology **A100***, **A100H***, **A165***,
A185*, **A220***, **A260***
 Sociology **A105**, **A110***, **A115***,
A150*, **A165***, **A180***, **A180H***,
A185*, **A185H***, **A190***
 Speech Communication **A155***, **A165**

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, 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 Transfer Center. The Transfer Center also sponsors a Transfer Day in the fall semester with representatives on campus from over 50 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, student 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.orangecoastcollege.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 A100 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)

Since the California Articulation Number (CAN) system was abandoned several years ago when the CSU withdrew its funding for CAN, the California Community College Regional Representatives recommend that references to the California Articulation Number (CAN) system and the identification that courses qualified for CAN be eliminated from all college print and electronic publications effective Fall 2009.

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.

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 Web site. The Transfer Center website can be located by clicking on the transfer information link on the OCC home page at www.orangecoastcollege.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 A100

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

Anthropology

Anthropology A100 (or A100H), A185/A185L, A280

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

Architecture/Landscape Architecture

Architecture A105, A110, A115, A180, A185, A205, A215

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

Art

Art A100 (or A100H), A101 (or A101H), A110, A111, A120 (or A120H)

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

Biology

Biology A181 (or A181H), A185*, Chemistry A180, A185, A220/A221, A225/A226, Physics A130, A135, Math A180 (or A180H), A185 (or A185H)

Additional coursework may be required in Biology and/or Mathematics. Some schools will accept Physics A120 & A125 instead of A130 & A135.

* Biology A182/A182L and A183/A183L can be substituted at some schools. Some schools require A182/A182L & A183/A183L instead of A185. Check current Transfer Curriculum Guide for latest information.

Business (CSU)

Accounting A101, A102, Business A110, Economics A180, A185, Computer Information Systems A111, Math A130 or A154, Math A157, Math A160

Additional coursework may be required in Accounting, Business, Computer Science, Mathematics and/or Philosophy. CSU Fullerton requires Accounting A110 in addition to A101 & A102. CSULB requires Math A154 and A157.

Business (UC and Independent)

See Transfer Curriculum Guide for requirements.

Chemistry

Chemistry A180, A185, A220/A221, A225/A226, Mathematics A180(or A180H), A185(or A185H), A280(or A280H), Physics A185, A280, A285

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

Child Development

Human Development A180

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 A180, A185, Mathematics A180 (or A180H), A185 (or A185H)

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

Engineering

See Transfer Curriculum Guide for requirements.

English

English A100, A101 (or A101H), A280, A285

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 A285.

Forestry/Natural Resources Management

Biology A181, A185 or A182/A182L & A183/A183L, Chemistry A180, Mathematics A180 (or A180H)

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

Geography

Geography A180 (or A180H), A185

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

Geology

Chemistry A180, A185, Geology A180, A185/A185L, Mathematics A180 (or A180H), A185 (or A185H), Physics A185, A280, A285

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 A101, A102, Computer Science A111, Culinary Arts/Food Service Management/Hospitality, Travel & Tourism A100, Economics A180, A185

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 A100, Journalism A110

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 A181, A185 or A182/A182L & A183/A183L, Chemistry A180, A185, Mathematics A180(or A180H), A185(or A185H), Physics A130, A135

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

Mathematics

Mathematics A180 (or A180H), A185 (or A185H), A280 (or A280H, A285 (or A285H)

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

Music

Music A180, A185, A280, A285

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

Ornamental Horticulture

Biology A183/A183L, Chemistry A180, A185, Ornamental Horticulture A181, A182, A183

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 A180 (or A180H), A185 (or A185H), A280 (or A280H), Physics A185, A280, A285

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

Political Science

Political Science A180 (or A180H), A185

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

Psychology

Psychology A100 (or A100H), A280, Psychology A160 or Mathematics A160 (or A160H)

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

Public Relations

Mass Communications A100, Journalism A110

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 A160 (or A160H), Psychology A100 (or A100H), A280, Sociology A180 (or A180H)

Social Science

See Transfer Curriculum Guide for requirements.

Social Work

Mathematics A160 (or A160H), Psychology A100 (or A100H), Sociology A180 (or A180H)

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

Sociology

Sociology A180 (or A180H)

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.

TEACH³

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 TEACH³ Office.

Technology

See Transfer Curriculum Guide for requirements.

Theatre Arts

Theatre Arts A106, A107

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 missing no more than 2 courses prior to matriculation at a four year institution may request partial certification during any term except in the final term prior to graduation from the four year institution.

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 taught at any of the California community colleges. 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 Enrollment Center 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 Watson Hall. 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, 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 Compositions 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.

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 A180 or A180H and one of the following courses: History A100, A170, A170H, A175, A175H or A177 or Economics A177.

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 as 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.

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 student 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 contact 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

Perhaps 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, specialization, and/or the Associate in Arts degree and Associate in Science, 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 and Associate in Science 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. At least 12 units must be completed at Orange Coast College, with a minimum of one course taken for a letter grade. At least 3 units in an advanced course from the program must be completed at Orange Coast College.

Career Programs	Certificate of Achievement	Certificate of Specialization	AA Degree Major	AS Degree Major
Accounting				
Accounting	✓		✓	✓
Accounting Technician		✓		
Entry-Level Accounting		✓		
Full Charge Bookkeeper		✓		
Airline Travel Careers - See Hospitality, Travel & Tourism				
Architectural Technology				
Architectural Drafting	✓		✓	✓
Architectural Drafting and Design	✓		✓	✓
Aviation Maintenance Technology				
Airframe	✓			✓
Powerplant	✓			✓
Airframe and Powerplant	✓			✓
Avionics		✓		✓
Helicopter Theory and Maintenance	✓	✓		
Aviation Pilot Training				
Aviation Pilot Training	✓			✓
Commercial Pilot		✓		
Instrumental Pilot		✓		
Private Pilot		✓		
Turbine Transition		✓		
Business				
Business Administration	✓		✓	✓
Entrepreneurship		✓		
Cardiovascular Technology				
Electrocardiography Technician	✓			
Echocardiography & Vascular Ultrasound				✓
Commercial Art				
Illustration Design	✓		✓	
Jewelry Design	✓		✓	
Computer Information Systems				
Business Application Development	✓		✓	✓
Computer Programming	✓		✓	✓
C++ Programming		✓		
Convergence Technologies		✓		
Database Administration (Oracle)		✓		
Database Developer (Oracle)		✓		
Computer Information Systems	✓		✓	✓
Network Administration and Operations		✓		
Office Applications		✓		
Web Design		✓		

CAREER AND CERTIFICATE PROGRAMS

	C of A	C of S	A.A.	A.S.
Construction Technology				
Basic Construction Practices	✓			✓
Residential Construction Development	✓			✓
Master Construction Specialist	✓			✓
Residential Electrical		✓		
Basic Carpentry		✓		
Finish Carpentry		✓		
Concrete and Masonry		✓		
Residential Utilities		✓		
General Contracting and Development		✓		
Construction Field Management		✓		
Introduction to Construction		✓		
Construction Basics		✓		
Costume Careers				
Costume Dresser	✓			
Costume Stitcher	✓			
Costume First Hand	✓			
Culinary Arts				
Culinary Arts	✓		✓	✓
Advanced Culinary Arts	✓		✓	✓
Cook Apprenticeship	✓			
Baking and Pastry	✓		✓	✓
Culinology®				
Culinary & Food Sciences	✓			
Culinology®				✓
Dance				
Dance Instructor	✓		✓	
World Dance	✓		✓	
Dance Conditioning/Pilates Instructor		✓		
Dental Assisting, Registered				
Dental Assisting, Registered	✓			✓
Design				
Design		✓		
Diagnostic Medical Sonography				
Diagnostic Medical Sonography				✓
Dietetics				
Dietetic Technician				✓
Digital Media Arts and Design				
Graphics Design	✓		✓	
Multimedia	✓		✓	
Display & Visual Presentation				
Display & Visual Presentation	✓		✓	

	C of A	C of S	A.A.	A.S.
Drafting Technology				
Computer Aided Design/Drafting	✓		✓	✓
Mechanical Design/Drafting	✓		✓	✓
Computer Aided Drafting		✓		
Dimensioning		✓		
Early Childhood Education				
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		✓		
Electronics Technology				
Electronics Maintenance	✓			
Electronics Assembler		✓		
Electronics Engineering Technician	✓			✓
Electronic Computer Hardware Technician	✓			
Automation and Motor Control	✓			
Electronic Communications Technician	✓			
Emergency Medical Technician				
Emergency Medical Technician-1/Basic		✓		
Entertainment Technology				
Scenic Artist	✓			
Lighting Technician	✓			
Family and Consumer Sciences				
Family and Consumer Sciences			✓	
Fashion				
Design	✓		✓	✓
Production/Product Development	✓		✓	✓
Apparel Construction	✓		✓	✓
Fashion Merchandising	✓		✓	✓
Industrial Sewing		✓		
Film/Video				
Film/Video	✓		✓	
Fitness Specialist				
Fitness Specialist	✓			✓
Food Science (See Culinary®)				
Food Service Management Commercial (Restaurant & Hotels)				
Restaurant				✓
Restaurant Supervision	✓			
Catering		✓		
Quick Service		✓		

CAREER AND CERTIFICATE PROGRAMS

	C of A	C of S	A.A.	A.S.
Food Service Management Institutional				
Child Nutrition Program Management	✓		✓	✓
Dietetic Service Supervisor	✓			
Dietetic Service Manager	✓			
Dietetic Technician-Management Healthcare				✓
Heating, Ventilation, Air Conditioning & Refrigeration (HVACR)				
HVACR Technology	✓			✓
Hospitality, Travel & Tourism				
Airline and Travel Careers				
Airline Travel Careers	✓		✓	✓
Corporate/Contract Flight Attendant	✓			
Hotel Management				
Front Office Specialist	✓			
Human Resource Management	✓			
Sales and Marketing Specialist	✓			
Room Operations Specialist			✓	✓
Meeting and Event Management		✓		
Spa Management				
Spa Management	✓			
Travel and Tourism				
Cruise Specialist	✓			
Tour Escorting and Management	✓			
Destination Management	✓			
Travel Agency Specialist	✓			
Travel and Tourism				✓
Interior Design				
Interior Merchandising	✓			
Interior Design Assistant				✓
Interior Design - Professional Level	✓			
Leadership Studies				
Leadership Studies		✓		
Manufacturing Technology				
Machinist	✓			✓
CNC Machine Operator	✓			✓
CNC Machine Programmer	✓			✓
Tooling	✓			✓
CNC Operator		✓		
CNC Programmer		✓		
Management				
Management and Leadership Studies	✓		✓	✓
Retail	✓		✓	✓
Management Institute		✓		
Mariner				
Professional Mariner - Level 1	✓			

	C of A	C of S	A.A.	A.S.
Marketing (Merchandising)				
International Business	✓		✓	✓
Marketing	✓		✓	✓
International Business		✓		
Entry Level Marketing		✓		
Medical Assisting				
CMA Eligible Program	✓			✓
Administrative	✓			
Clinical	✓			
Medical Insurance		✓		
Medical Transcription				
Medical Transcription	✓			
Mental Health Worker				
Mental Health Worker	✓			
Music	✓			
Business Employee	✓		✓	
MIDI Applications	✓		✓	
Musical Entertainer—Instrumental	✓		✓	
Musical Entertainer—Vocal	✓		✓	
Studio Guitar Performer	✓		✓	
Neurodiagnostic Technology				
Neurodiagnostic Technology	✓		✓	✓
NDT Upgrade		✓		
Nutrition Careers				
Community Nutrition Assistant	✓		✓	✓
Nutrition Education	✓		✓	✓
Ornamental Horticulture				
Ornamental Horticulture	✓		✓	✓
Photography, Still				
Digital Technician	✓			
Photography, Still	✓			✓
Polysomnographic Technology				
Polysomnographic Technology				✓
Neurodiagnostic Technology Option				✓
Respiratory Care Option				✓
Radiologic Technology (Diagnostic)				
Radiologic Technology (Diagnostic)				✓
Real Estate				
Broker				✓
Sales Person			✓	
Religious Studies				
Religious Studies		✓		
Respiratory Care				
Respiratory Care				✓

CAREER AND CERTIFICATE PROGRAMS

	C of A	C of S	A.A.	A.S.
Spa Management see Hospitality, Travel & Tourism				
Speech-Language Pathology Assistant				
Speech Language Pathology Assistant				✓
Technical Writing				
Technical Writing				✓
Travel and Tourism see Hospitality, Travel & Tourism		✓		
Welding Technology				
Welding	✓			✓
Basic Welding (SMAW)		✓		
Intermediate Welding (SMAW)		✓		
Advanced Welding (SMAW)		✓		
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

Program Outcomes

Students completing the Certificate of Achievement in Accounting will be prepared to:

- Demonstrate various activities performed in the accounting function of industry, apply comprehensive accounting skills, utilize technical knowledge, and display ethical behaviors and practices.
- Demonstrate technical knowledge of accounting related topics that provide major course transfer to a four-year institution.

Course	Required Courses			Units
First Semester				
Financial Accounting	ACCT	A101	(4)	
Intro to Business (Or)	BUS	A100	(3)	
Honors Intro to Business	BUS	A100H	(3)	
Intro to Computer Appl (Or)	CIS	A100	(3)	
Intro to Computer Info Systems	CIS	A111	(3)	
Second Semester				
Managerial Accounting	ACCT	A102	(4)	
Accounting Info Sys 1	ACCT	A110	(3)	
Third Semester				
Accounting with QuickBooks	ACCT	A112	(2)	
Intermediate Accounting	ACCT	A211	(4)	
Business Communication	BUS	A139	(3)	
Fourth Semester				
Federal Income Tax	ACCT	A111	(3)	
Cost Accounting	ACCT	A210	(3)	
Total:			(32)	

Suggested electives:

Volunteer Income Tax Assist	ACCT	A114	(1)
Business Law	BUS	A110	(3)
Business Math	BUS	A125	(3)
Small Business Ownership	BUS	A240	(3)
Applied Management	MGMT	A100	(3)
Human Relations & Supervision	MGMT	A115	(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.

ACCOUNTING TECHNICIAN

This certificate, issued through the Business and Computing Division, provides students with a working knowledge of various software programs used by industry in the process of reporting of accounting activities. While reinforcing the student's knowledge of accounting principles, completion of this certificate enhances employment opportunities in the business and accounting fields.

All courses must be completed at OCC with a grade of "C" or better.

CERTIFICATE OF SPECIALIZATION

Program Outcomes

Upon Successful completion of the Certificate of Achievement in Accounting, graduates will be prepared to:

- Demonstrate knowledge of an accounting process by performing appropriate accounting functions using widely accepted accounting software.
- Demonstrate computer skills to retrieve and manage information in an accounting environment.

Required Courses

Course			Units
Accounting for Small Business (Or)	ACCT	A100	(3)
Financial Accounting	ACCT	A101	(4)
Accounting Info Sys 1	ACCT	A110	(3)
Accounting with QuickBooks	ACCT	A112	(2)
Mas 90/Mas 200	ACCT	A117	(2)
Payroll	ACCT	A119	(3)
Excel 2	CIS	A234	(2)
Total:			(15-16)

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.

All courses must be completed at OCC with a grade of "C" or better.

CERTIFICATE OF SPECIALIZATION

Program Outcomes

Certificate of Specialization in Entry-Level Accounting graduates will be prepared to:

- Demonstrate knowledge of an accounting process by performing appropriate accounting functions manually or by utilizing G/L software.
- Define and apply the different concepts of cost used to assist managers in making business decisions by performing profitability and cost analysis.

Required Courses

Course			Units
Financial Accounting	ACCT	A101	(4)
Managerial Accounting	ACCT	A102	(4)
Accounting Info Sys 1	ACCT	A110	(3)
Total:			(11)

FULL CHARGE BOOKKEEPER

This certificate, issued through the Business and Computing Division, integrates all aspects of the accounting cycle. Students will be able to apply accounting activities within the framework of industry software. Completion of this certificate enhances employment opportunities within the accounting field.

All courses must be completed at OCC with a grade of "C" or better.

CERTIFICATE OF SPECIALIZATION

Program Outcomes

Certificate of Specialization in Full Charge Bookkeeper graduates will be prepared to:

1. Demonstrate knowledge of an accounting process by performing appropriate accounting functions using widely accepted accounting software.
2. Apply computer skills to retrieve and manage information and remain current with applicable standards and laws within a bookkeeping environment.

Required Courses

Course			Units
Accounting for Small Business (Or)	ACCT	A100	(3)
Financial Accounting	ACCT	A101	(4)
Accounting Info Sys 1	ACCT	A110	(3)
Accounting with QuickBooks	ACCT	A112	(2)
Mas 90/Mas 200	ACCT	A117	(2)
Payroll	ACCT	A119	(3)
Full Charge Bookkeeper	ACCT	A121	(1)
Total:			(14-15)

AIRLINE AND TRAVEL CAREERS

—See *Hospitality, Travel & Tourism*

APPRENTICESHIP

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

ARCHITECTURAL TECHNOLOGY

Mission Statement

The OCC Architectural Technology Program endeavors to empower students to lead productive and creative professional lives in the context of Architecture and Environmental Design.

Program Description

The Architectural Technology Program offers courses in design, building materials, construction documents, design visualization and graphics, and computer-assisted design, building information modeling and fabrication. 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 the many and varied firms in Southern California 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, high transfer rates, and becoming valued members of the professional community.

Program Outcomes

In support of our Mission, our program has two incremental goals:

The 1st year Certificate of Achievement in Architectural Drafting prepares students for an entry-level professional position at an architectural or related design office.

The 2nd year Certificate of Achievement in Architectural Drafting and Design prepares students in the areas of critical thinking, design, and visual communication for successful transfer to a university professional program in Architecture and/or related Environmental Design or for a junior/intermediate level drafting/design position at an architectural or related firm.

ARCHITECTURAL DRAFTING

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
First Semester			
Arch Dwg/Desgn Visual 1	ARCH	A105	(2)
Intro to Architecture	ARCH	A110	(2)
Architectural Tech Elective(s)	ARCH		
Second Semester			
Arch Dwg/Desgn Theory 1	ARCH	A115	(4)
Arch Draft & Const Documents	ARCH	A180	(4)
Arch Dwg/Desgn Visual 2	ARCH	A205	(3)
Architectural Tech Elective(s)	ARCH		(4)
Architectural Tech Elective(s)			
Total:			(19)

CONTINUED NEXT PAGE

Select four (4) units from the following list of courses:

Intro to Environmental Sustainability	ARCH	A101	(1)
CAD 2D for Architecture	ARCH	A150	(2)
BIM 1 for Architecture	ARCH	A155	(2)
BIM 2 for Architecture	ARCH	A156	(2)
3-D Modeling: Sketchup 1	ARCH	A160	(2)
3-D Modeling: Rhino or 3D Studio Max 1	ARCH	A162	(2)
Presentation Graphics for Architecture	ARCH	A165	(2)
Video for Architecture	ARCH	A167	(1)
Intro to Fabrication/Safety for Architecture	ARCH	A170	(1)
Fabrication 1 for Architecture	ARCH	A171	(2)
Fabrication 2 for Architecture	ARCH	A172	(2)
Design/Build for Architecture 1	ARCH	A201	(1)
Design/Build for Architecture 2	ARCH	A202	(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.

ARCHITECTURAL DRAFTING AND DESIGN

CERTIFICATE OF ACHIEVEMENT

Required prerequisite:

Architectural Design Certificate of Achievement (19)

Required Courses

Course			Units
Fall			
Arch Plan & Const Documents	ARCH	A185	(4)
Arch Dwg/Design Theory 2	ARCH	A215	(4)
Architectural Tech Elective(s)	ARCH		(2)
Spring			
Building Materials & Systems	ARCH	A220	(4)
Arch Dwg/Design Theory 3	ARCH	A230	(5)
Architectural Tech Elective(s)	ARCH		(2)
Subtotal:			(21)
Total:			(40)

Select four (4) units from the following list of courses:

Intro to Environmental Sustainability	ARCH	A101	(1)
CAD 2D for Architecture	ARCH	A150	(2)
BIM 1 for Architecture	ARCH	A155	(2)
BIM 2 for Architecture	ARCH	A156	(2)
3-D Modeling: Sketchup 1	ARCH	A160	(2)
3-D Modeling: Rhino or 3D Studio Max 1	ARCH	A162	(2)
Presentation Graphics for Architecture	ARCH	A165	(2)
Video for Architecture	ARCH	A167	(1)
Intro to Fabrication/Safety for Architecture	ARCH	A170	(1)
Fabrication 1 for Architecture	ARCH	A171	(2)
Fabrication 2 for Architecture	ARCH	A172	(2)
Design/Build for Architecture 1	ARCH	A201	(1)
Design/Build for Architecture 2	ARCH	A202	(2)

Suggested electives:

Land & Building Development	ARCH/CNST	A225	(3)
Building Codes & Standards	ARCH	A250	(2)
History of Architecture 1	ARCH	A290	(3)
History of Architecture 2	ARCH	A296	(3)
Freehand Drawing	ART	A120	(3)
Computer Use in Technology	CHT	A100	(3)
Intro to Computer Graphics	DMAD	A181	(3)
Illus & Computer Graphics 1	DMAD	A190	(4)
Fund of Interior Design	ID	A100	(3)
Interior Design Studio 1	ID	A105	(2)
Space Planning	ID	A170	(3)
Interior Design Studio 3	ID	A265	(2)
Technical Math	TECH	A040	(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 *COMMERCIAL ART*



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 Aircraft Maintenance Technology program mission, following counsel of local community and industry leaders, is to provide quality instruction to promote student success with comprehensive training for those interested in entering the aviation maintenance profession and for professionals in the aviation maintenance field striving to improve their knowledge and skills in the areas comprising of Airframe, Powerplant, Avionics and Helicopter Maintenance

Program Outcomes

Students successfully completing the Orange Coast College Aviation Maintenance Technology program will have the necessary skills and training for proficiency in taking written, oral and practical exams for certification which may be required for employment.

Working craftsmen will be able to improve or develop additional proficiencies required for professional growth or advancement in their current employment. All qualification training and tests are prescribed and follow the guide of the Federal Aviation.

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 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 intersession, and one summer school session.

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

CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Fall			
General Maintenance Records	AMT	A150	(4)
General Electricity	AMT	A151	(3)
General Airfrm/Pwrplnt Fuel	AMT	A152	(2)
General Mat/Processes/Weld	AMT	A153	(3)
General Wgt/Bal/Math/Physics	AMT	A154	(3)
Intersession			
General Blueprint Read/Draft	AMT	A155	(2)
Airframe & Powerplant Instrument	AMT	A180	(2.5)
Spring			
Airframe & Pwrplnt Elec	AMT	A160	(6)
Airframe Sheet Mtl/Composite	AMT	A161	(5.5)
Airframe Asmbly/Rig/ECS	AMT	A162	(3)
Airframe Comm/Nvgation Sys	AMT	A181	(2)
Summer			
Airframe Hyd & Lndg Gear	AMT	A163	(4.5)
Total:			(40.5)

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 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

Required Courses			
Course			Units
Fall			
General Maintenance Records	AMT	A150	(4)
General Electricity	AMT	A151	(3)
General Airfrm/Pwrplnt Fuel	AMT	A152	(2)
General Mat/Processes/Weld	AMT	A153	(3)
General Wgt/Bal/Math/Physics	AMT	A154	(3)
Intersession			
General Blueprint Read/Draft	AMT	A155	(2)
Airframe & Powerplant Instrument	AMT	A180	(2.5)
Spring			
Airframe & Pwrplnt Elec	AMT	A160	(6)
Fall			
Powerplant Recip Engines	AMT	A170	(6)
Powerplant Fuel/Mtr/Exhst	AMT	A171	(4)
Intersession			
Powerplant Ignition Sys	AMT	A174	(2.5)
Spring			
Pwrplnt Prplr/Lube Sys	AMT	A172	(4)
Powerplant Gas Turbine Eng	AMT	A173	(6)
Total:			(48)

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.

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CERTIFICATE OF ACHIEVEMENT

Required Courses		Units	
Course			
Fall			
General Maintenance Records	AMT	A150	(4)
General Electricity	AMT	A151	(3)
General Airfrm/Pwrplnt Fuel	AMT	A152	(2)
General Mat/Processes/Weld	AMT	A153	(3)
General Wgt/Bal/Math/Physics	AMT	A154	(3)
Intersession			
General Blueprint Read/Draft	AMT	A155	(2)
Airframe & Powerplant Instrument	AMT	A180	(2.5)
Spring			
Airframe & Pwrplnt Elec	AMT	A160	(6)
Airframe Sheet Mtl/Composite	AMT	A161	(5.5)
Airframe Asmbly/Rig/ECS	AMT	A162	(3)
Airframe Comm/Nvgation Sys	AMT	A181	(2)
Summer			
Arfrm Hyd & Lndg Gear	AMT	A163	(4.5)
Fall			
Powerplant Recip Engines	AMT	A170	(6)
Powerplant fuel/Mtr/Exhst	AMT	A171	(4)
Intersession			
Powerplant Ignition Sys	AMT	A174	(2.5)
Spring			
Powerplant Prplr/Lube Sys	AMT	A172	(4)
Powerplant Gas Turbine Eng	AMT	A173	(6)
Total:		(63)	

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 SPECIALIZATION

Required Courses		Units	
Course			
Fall			
General Electricity	AMT	A151	(3)
Aircraft Avionics Circuits	AMT	A182	(4)
Avionics Rules & Regulations	AMT	A188	(1.5)
Intersession			
Airframe & Powerplant Instrument	AMT	A180	(2.5)
Spring			
Airframe Comm/Nvgation Sys	AMT	A181	(2)
Aircraft Avionics Systems	AMT	A184	(4)
Total:		(17)	

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 SPECIALIZATION

Required Courses		Units	
Course			
Fall			
Theory and Operations	AMT	A140	(3)
Spring			
Helicopter Maintenance	AMT	A290	(4)
Total:		(7)	

AVIATION PILOT TRAINING

This program offers training 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

Required Courses		Units	
Course			
Fall			
Private Pilot Ground School	APT	A130	(5)
Aviation-Meteorology	APT	A133	(3)
Basic Air Transportation	APT	A180	(3)
Spring			
Aviation-Navigation	APT	A132	(3)
Instrument Ground School	APT	A134	(3)

Fall

Commercial Pilot Ground School	APT	A139	(3)
Turbine Aircraft Systems	APT	A145	(3)

Total: **(23)**

Suggested electives:

Aerodynamics	APT	A138	(3)
Flight Instructor Ground School	APT	A140	(3)
Flight Simulator Course	APT	A141	(3)
Human Factors/Cockpit Mgmt	APT	A192	(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.

Program Outcome

Students will develop the analytical and critical thinking skills necessary for completion of flight training and federally administered written examinations.

Turbine Transition

The Turbine Transition certificate covers turbine aircraft systems and cockpit resource management. Courses are intended to explore the 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	A145	(3)
Human Factors & Cockpit Resource Management	APT	A192	(1.5)

Total: **(4.5)**

Private Pilot

The Private Pilot certificate covers current topics in the aerospace industry for the beginning aviation student or working professional.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Private Pilot Ground School	APT	A130	(5)
Aviation-Meteorology	APT	A133	(3)
Basic Air Transportation	APT	A180	(3)

Total: **(11)**



Instrument Pilot

The Instrument Pilot program covers current topics in the aerospace industry for the advanced instrument student.

CERTIFICATE OF SPECIALIZATION

Required Courses			Units
Course			
Aviation-Navigation	APT	A132	(3)
Instrument Ground School	APT	A134	(3)
Flight Simulator Course	APT	A141	(3)
Total:			(9)

Commercial Pilot

The Commercial Pilot certificate covers current topics in the aerospace industry for the advanced aviation pilot student or working aviation professional.

CERTIFICATE OF SPECIALIZATION

Required Courses			Units
Course			
Commercial Pilot Ground School	APT	A139	(3)
Flight Instructor Ground School	APT	A140	(3)
Turbine Aircraft Systems	APT	A145	(3)
Total:			(9)

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. Students are advised to check course transferability for the school to which they intend to transfer.

Program Outcomes

Upon successful completion of the Certificate of Achievement in Business Administration, graduates will be able to:

Function effectively in entry-level business positions or at a four-year college business program using the skills, principles, and tools they have acquired.

Effectively apply and utilize the business principles and techniques they have learned in a business environment or at a four-year college business program.

Demonstrate effective written and/or oral skills.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Financial Accounting	ACCT	A101	(4)
Managerial Accounting	ACCT	A102	(4)
Intro to Business	BUS	A100	(3)
Business Law	BUS	A110	(3)
Business Communication	BUS	A139	(3)
Intro to Computer Info Systems	CIS	A111	(3)
Macroeconomics	ECON	A180	(3)
Microeconomics	ECON	A185	(3)
Intro to Statistics	MATH	A160	(3)
(Or)			
Honors Intro to Statistics	MATH	A160H	(3)
(Or)			
Statistics for Behavioral Sci	PSYC	A160	(3)
Calculus for Biol Mgmt & Soc. Sci	MATH	A157	(4)
(Or)			
Calculus 1	MATH	A180	(4)
(Or)			
Honors Calculus 1	MATH	A180H	(4)
(Or)			
Honors Calculus 1 and 2	MATH	A182H	(5)
Total:			(33-34)

Suggested electives:

Accounting Info Sys 1	ACCT	A110	(3)
Business Finance	BUS	A200	(3)
Logic & Critical Thinking	PHIL	A150	(3)

ENTREPRENEURSHIP

The Entrepreneurship program is designed to develop skills in starting, maintaining, and growing a small business. Courses emphasize feasibility analysis, legal considerations, financial management, marketing plans, and sales techniques.

Program Outcomes

Upon successful completion of the Certificate of Specialization (CS) in Entrepreneurship, graduates will be able to:

1. Function effectively in an entrepreneurial venture and in a supporting role to an entrepreneur.
2. Effectively apply and utilize the small business principles and techniques they have learned in a business environment or at a four-year college entrepreneur program.
3. Determine the viability of a small business venture.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Accounting for Small Business	ACCT	A100	(3)
Business Finance	BUS	A200	(3)
Intro to Entrepreneurship	BUS	A240	(3)
Intro to Marketing	MKTG	A100	(3)
Professional Selling	MKTG	A110	(3)
TOTAL:			(15)

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 non-invasive 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).

Program Admission:

Allied Health 010 course – application and orientation.

The student must complete Associate of Science Degree graduation requirements and the program prerequisites prior to acceptance to the program.

ELECTROCARDIOGRAPHY TECHNICIAN

Employment possibilities include:

ECG Technician
Stress Testing Technician
Holter Monitor Technician
Pacemaker Technician
Monitor (Telemetry) Technician

Program Outcome

Students will be prepared for entry-level employment as a professional and competent Cardiovascular Technologist to meet the needs of the local health care community.

CERTIFICATE OF ACHIEVEMENT

Program prerequisites:

Health Occupations	ALH	A010	(.5)
Anatomy-Physiology	BIOL	A221	(4)

Required Courses

Course			Units
Fall			
Medical Terminology	ALH	A111	(3)
Patient Care	ALH	A115	(2.5)
Intro to Computer Appl	CIS	A100	(3)
Intro to Electrocardiography	CVT	A100	(2)
Cardiac Anat & Pathophysiology	CVT	A160	(3)
Technical Math*	TECH	A040	(3)
Spring			
Human Diseases	ALH	A120	(2)
Intro to Invasive Cardiology	CVT	A130	(3)
Adv Electrocardiography	CVT	A150	(2)
ECG Clinical Experience	CVT	A170	(3)
Total:			(31)

*(or Math A030 or higher or placement at appropriate Math level)

Suggested elective:

Ethics	PHIL/RLST	A120	(3)
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Students are required to obtain a grade of "C" or better in all required courses.

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ECHOCARDIOGRAPHY AND VASCULAR ULTRASOUND

Associate in Science Degree

Employment possibilities include:

Noninvasive Cardiovascular Technologist
Echocardiographer/Echocardiography Technologist
Cerebrovascular Ultrasound Technologist

Program Outcome

Students will be prepared for entry-level employment as a professional and competent Cardiovascular Technologist to meet the needs of the local health care community.

Required prerequisites:

Electrocardiography Technician
 Certificate of Achievement

Course	Required Courses			Units
	Fall			
Intro to Echocardiography	CVT	A200	(3)	
Intro to Echocardiography Lab	CVT	A205	(1)	
Echocardiography Clin Lab 1	CVT	A210	(5)	
Sono Physics/Instrumentation	DMS	A150	(4.5)	
	Spring			
Adv Echocardiography	CVT	A250	(2)	
Adv Echocardiography Lab	CVT	A255	(1)	
Cerebrovascular Ultrasound	CVT	A260	(2)	
Echocardiography Clin Lab 2	CVT	A265	(6)	
	Subtotal:			(31)
	Total:			(55.5)

Students are required to obtain a grade of "C" or better in all prerequisites and 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.

Program Outcomes

Upon completion of this program graduates will be able to:

Create a series of illustrations demonstrating techniques and applications of current illustration and design software.

Demonstrate skill development in drawing, perspective, and various media.

Create a portfolio utilizing multiple design techniques for the purpose of gaining employment and/or acceptance to an art college or university for advanced learning.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	First Semester			
Color & Design 2-D	ART	A110	(3)	
Freehand Drawing	ART	A120	(3)	
Rapid Illustration Techniques	DMAD	A117	(4)	
	Second Semester			
Color & Design 3-D	ART	A111	(3)	
Life Drawing	ART	A121	(3)	
Perspective	ART	A125	(3)	
Graphic Design	DMAD	A182	(4)	
	Third Semester			
Painting 1	ART	A130	(3)	
Story Illustration Techniques	ART	A143	(3)	
Figure Composition	ART	A220	(3)	
	Fourth Semester			
Printmaking 1	ART	A170	(3)	
Professional Studies	ART	A180	(1)	
Intro to Marketing	MKTG	A100	(3)	
	Total:			(39)
	Suggested electives:			
Contemporary Art History	ART	A102	(3)	
2D Animation	DMAD	A280	(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.

Program Outcomes

Upon the completion of the classes listed for the certificate for Jewelry Design, students will be able to:

1. Fabricate jewelry such as earrings, brooches, necklaces, from nonferrous metals including semi precious metals.
2. Differentiate between casted jewelry to fabricated jewelry and mass produced jewelry to hand crafted pieces.
3. Demonstrate a basic understanding of repair processes.
4. Design jewelry and complete the design by applying various metalsmithing techniques.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	First Semester			
Color & Design 2-D Freehand Drawing	ART	A110	(3)	
	ART	A120	(3)	
Color & Design 3-D Sculpture 1 Jewelry 1	ART	A111	(3)	
	ART	A141	(3)	
	ART	A147	(3)	
Jewelry 2 Intro to Marketing	ART	A247	(3)	
	MKTG	A100	(3)	
Professional Studies Sculpture 2	ART	A180	(1)	
	ART	A241	(3)	
Total:			(25)	

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. 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.

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.

Program Outcome

Students will be prepared for employment in entry-level positions in the computer and information systems industries.

CERTIFICATE OF ACHIEVEMENT

CORE CURRICULUM

Required Courses

Course			Units
Financial Accounting	ACCT	A101	(4)
Intro to Computer Info Systems	CIS	A111	(3)
Intro to C# .NET Programming*	CS	A140	
(Or)			
Intro to VB .NET Programming*	CS	A142	(4)
(Or)			
Java Programming 1*	CS	A170	
Finite Math	MATH	A154	
(Or)			
Calculus 1	MATH	A180	
(Or)			(4)
Honors Calculus 1	MATH	A180H	
(Or)			
Calculus for Biol Mgmt & Soc. Sci	MATH	A157	
Total:			(15)

Courses marked by asterisk (*) may not be used to satisfy both the core requirement and the specialization requirement.

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
Intro to C# .NET Programming*	CS	A140	(4)
Intro to VB .NET Programming*	CS	A142	(4)
Java Programming 1*	CS	A170	(4)

Technical Programming

C++ Programming 1	CS	A150	(4)
Windows .NET Programming	CS	A152	(4)
Data Structures	CS	A200	(4)
Computer Architecture	CS	A216	(4)
C++ Programming 2	CS	A250	(4)
Java Programming 2	CS	A272	(4)

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Web Development

Course			Units
Intro to Web Page Design	CIS	A123	(2)
Intro to Dreamweaver	CIS	A128	(2)
Cascading Style Sheets (CSS) for Web Pages	CIS	A129	(2)
Bus Multimedia/Graphics	CIS	A132	(2)
Flash Programming	CIS	A141	(3)
JavaScript Programming	CIS	A171	(2)
JavaScript 2	CIS	A223	(2)
Digital Video for Business: Adobe Premier Pro	CIS	A232	(3)

Networking Environment

PC Concepts: Linux/Certification Prep	CIS	A106	(4)
MS Windows	CIS/BUS	A107	(1)
PC Concepts: A+ Certification Prep	CIS	A110	(4)
SQL Server Administration	CIS	A176	(4)
SQL Server Design & Implementation	CIS	A177	(4)
Network & Comm Technologies	CIS	A191	(4)
Network Systems Admin	CIS	A192	(4)
Network Infrastructure Admin	CIS	A193	(3)
Network Directory Services Admin	CIS	A194	(3)
Network Security Design	CIS	A196	(4)

Database

SQL Tuning Workshop	CIS	A178	(2)
PL/SQL II	CIS	A179	(2)
Intro to Database Concepts	CIS	A182	(4)
Oracle SQL Programming	CIS	A183	(4)
Oracle PL/SQL Programming	CIS	A184	(3)
Oracle Forms & Reports Developer	CIS	A185	(4)
Oracle Database Admin I	CIS	A187	(3)
Oracle Database Admin II	CIS	A188	(3)
SQL Tuning	CIS	A178	(2)
PL/SQL II	CIS	A179	(2)

(25)

Total: (28-40)

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. 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.

Program Outcome

Based on the recommendations of the Association for Computing Machinery, The Computer Programming Certificate prepares students to work as entry-level programmers, or useful to fulfill some of the requirements for transfer to a Computer Science program at a four-year university.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Computer Science Courses			Units
C++ Programming 1	CS	A150	(4)
Java Programming I	CS	A170	(4)
Data Structures	CS	A200	(4)
Computer Architecture	CS	A216	(4)
Software Engineering	CS	A220	(4)
C++ Programming 2	CS	A250	(4)
Theories of Computation	CS	A265	(1)

Total: (25)

Mathematics Courses

Intro to Stats (or Honors Intro Stats)	MATH	A160(H)	(3)
Calculus 1 (or Honors Calculus 1)	MATH	A180(H)	(8)
(And)			
Calculus 2 (or Honors Calculus 2)	MATH	A185(H)	(4)
(Or)			
Honors Calculus 1 and 2	MATH	A182H	(5)
Discrete Mathematics	MATH	A230	(5)
Applied Linear Algebra	MATH	A235	(3)
(Or)			
Intro to Linear Algebra & Differential Equations	MATH	A285	(4)
(Or)			
Honors Intro to Linear Algebra & Differential Equations	MATH	A285H	(5)

Subtotal (16-21)

Total: (41-46)

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

This program will meet major requirements for the Associate in Arts or Associate in Science degrees 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 a counselor for specific transfer information.

This option provides the student with the lower-division transfer courses for some of the business oriented majors. Students are advised to check course transferability with an Orange Coast College counselor prior to enrolling in CIS courses.

Program Outcome

Students will be prepared for employment in entry-level positions in the computer and information systems industries.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Financial Accounting	ACCT	A101	(4)
Managerial Accounting	ACCT	A102	(4)
Business Law	BUS	A110	(3)
Intro to Computer Info Systems	CIS	A111	(3)
Intro to C# .NET Programming (Or)	CS	A140	(4)
Intro to VB .NET Programming	CS	A142	
Java Programming 1	CS	A170	(4)
Macroeconomics	ECON	A180	(3)
Microeconomics	ECON	A185	(3)
Calculus for Biol Mgmt & Soc. Sci (Or)	MATH	A157	(4)
Calculus 1	MATH	A180	
Total:			(32)

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.

CONVERGENCE TECHNOLOGIES

Completion of this certificate will enable students to acquire the skill needed by professionals in information and communication technologies to support the converged network that carries voice, data, image, and video traffic. This career is an emerging IT-related career that sees high demand and growth.

Program Outcomes

Students who receive the Convergence Technologies Certificate of Completion will be able to design and implement a converged network.

CERTIFICATE OF SPECIALIZATION

Required Courses

Courses			Units
PC Concepts: A+ Certification Prep	CIS	A110	(4)
Networking Essentials	CIS	A197	(4)
Routing and Router Configurations	CIS	A198	(3)
Convergence Technologies	CIS	A260	(3)

Select one (1) course from the following:

Fundamentals of Wireless Networking	CIS	A261	(3)
Fundamentals of Voice over IP	CIS	A262	(3)
Home Technology Integration	CIS	A263	(3)
Enterprise Router Configurations 1	CIS	A265	(3)
Enterprise Router Configurations 2	CIS	A266	(3)
Small /Home Office: Case Study 1	CIS	A270	(3)
Total:			(17)

COMPUTER INFORMATION SYSTEMS

CERTIFICATE OF SPECIALIZATION

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.

Program Outcome

Program completers will be able to write programs in C++ using classes, flow-of-control and fundamental data structure.

Required Courses

Course			Units
C++ Programming 1	CS	A150	(4)
Data Structures	CS	A200	(4)
C++ Programming 2	CS	A250	(4)
Total:			(12)

Database Administration (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.

Program Outcomes

Students will be able to:

Design and develop a data Model.

Create, manage, backup and recover an Oracle database.

Monitor database performance using Oracle-supplied administration tools and SQL.

Required Courses

Course			Units
Intro to Database Concepts	CIS	A182	(4)
Oracle Database Admin I	CIS	A187	(4)
Oracle Database Admin II	CIS	A188	(3)

And minimum of 4 units from the following optional courses:

PC Concepts: Linux/Certification Prep	CIS	A106	(4)
SQL Tuning	CIS	A178	(2)
PL/SQL II	CIS	A179	(2)
Oracle SQL Programming	CIS	A183	(4)
Oracle PL/SQL Programming	CIS	A184	(3)

Total: (15)

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Database Developer (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.

Program Outcomes

Students will be able to:

- Design and develop a data model.
- Use SQL to retrieve data, manipulate and manage database objects.
- Create, execute and maintain PL/SQL modules.

Required Courses

Course			Units
Intro to Database Concepts	CIS	A182	(4)
Oracle SQL Programming	CIS	A183	(4)
Oracle PL/SQL Programming	CIS	A184	(3)

And a minimum of 4 units from the following optional courses:

Course			Units
SQL Tuning	CIS	A178	(2)
PL/SQL II	CIS	A179	(2)
Oracle Forms & Reports Developer	CIS	A185	(4)
Database Administration I	CIS	A187	(4)

Total: (15)

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.

Program Outcome

Students who receive the Convergence Technologies Certificate of Specialization will be able to design and implement a small to medium network environment.

Required Courses

Course			Units
PC Concepts: A+ Certification Prep	CIS	A110	(4)
Network & Comm Technologies	CIS	A191	(4)
Network Systems Admin	CIS	A192	(4)

Select one (1) course from the following:

SQL Server Administration	CIS	A176	(4)
SQL Server Design & Implementation	CIS	A177	(4)
Network Infrastructure Admin	CIS	A193	(3)
Network Directory Services Admin	CIS	A194	(3)
Network Security Design	CIS	A196	(4)

Total: (15-16)

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.

Program Outcomes

Students who receive the Office Applications Certificate of Specialization will be able to:

1. Use a computer operating system and computer applications for word processing, electronic spreadsheet creation, database management, multimedia presentations, and electronic personal management with competence.
2. Achieve personal development and responsibility for entering the job market.

Required Courses

Course			Units
MS Windows	CIS	A107	(1)
Microsoft Word 1	CIS	A131	(2)
PowerPoint	CIS/BUS	A133	(1)
Excel 1	CIS/BUS	A134	(2)
Intro to Microsoft Access	CIS	A135	(2)
Microsoft Outlook	CIS	A137	(1)

Total: (9)

Web Design

Program Outcome

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. As an added outcome, Web Design Certificate students will be able to create dynamic Web pages.

Complete five (5) courses from this list (must be taken at Orange Coast College.)

Required Courses

Course			Units
Intro to Web Page Design	CIS	A123	(2)
Intro to Dreamweaver	CIS	A128	(2)
Cascading Style Sheets (CSS) for Web Pages	CIS	A129	(2)
Bus Multimedia/Graphics	CIS	A132	(2)
Flash Programming	CIS	A141	(3)
JavaScript Programming	CIS	A171	(2)
JavaScript 2	CIS	A223	(2)

Total: (10-11)

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 Specialization can be completed in one to two semesters.

Program Outcome

Upon successful completion of the Construction Specialist program, students will have the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades. Students successfully completing a comprehensive series of courses will be prepared to work in the construction field in positions including, but not limited to work areas such as inspection, management, and as hands-on skilled trades people.

BASIC CONSTRUCTION PRACTICES

Construction Technology A165, 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	CNST	A165	(3)
Building Construction	CNST	A180	(5)
Building Construction	CNST	A185	(5)
Blueprint Reading & Drafting	CNST	A190	(4)
Building Code & Law	CNST	A195	(3)
Residential Finish Carpentry	CNST	A240	(5)
Total:			(25)

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 A165, 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
Cabinet Making	CNST	A114	(4)
Intro to Construction	CNST	A170	(3)
Building Construction	CNST	A180	(5)
Building Construction	CNST	A185	(5)
Blueprint Reading & Drafting	CNST	A190	(4)
Building Code & Law	CNST	A195	(3)
Concrete Construction	CNST	A210	(5)
Construction Estimating	CNST	A220	(3)
Land & Building Development	CNST	A225	(3)
Construction Inspection	CNST	A230	(3)
Contractor's Business Practice	CNST	A235	(3)
Residential Finish Carpentry	CNST	A240	(5)
Supervision and Project Mgmt	CNST	A250	(3)
Business Law for Contractors	CNST	A252	(1.5)
Construction Finance	CNST	A255	(3)
Masonry Construction	CNST	A260	(3)
Plumbing 1	CNST	A265	(4)
Contractor's License Law	CNST	A270	(1.5)
Residential Electrical Wiring	CNST	A275	(5)
Res Lt Steel Frame Const	CNST	A285	(5)

Total: (18)

Minimum

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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

Required Courses			
Course			Units
Cabinet Making	CNST	A114	(4)
Construction Safety/CAL OSHA	CNST	A165	(3)
Building Construction	CNST	A180	(5)
Blueprint Reading & Drafting	CNST	A190	(4)
Concrete Construction	CNST	A210	(5)
Residential Finish Carpentry	CNST	A240	(5)
Plumbing 1	CNST	A265	(4)
(Or)			
Plumbing 2	CNST	A266	(4)
Residential Electrical Wiring	CNST	A275	(5)
Res Lt Steel Frame Const	CNST	A285	(5)
Intro to Computer Appl	CIS	A100	(3)
(Or)			
Computer Use in Technology	CHT	A100	(3)
Subtotal:			(43)

Select eleven (11) units from the following:

Building Construction	CNST	A185	(5)
Building Code & Law	CNST	A195	(3)
Construction Estimating	CNST	A220	(3)
Construction Inspection	CNST	A230	(3)
Supervision & Project Management	CNST	A250	(3)
Masonry Construction	CNST	A260	(3)
			(11)
Total:			(54)

ASSOCIATE DEGREE

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

RESIDENTIAL ELECTRICAL

This certificate prepares students for entry level employment in residential electrical related trades. The student will be able to wire electrical systems, understand code requirements, and interpret electrical blueprints.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Construction Safety/CAL OSHA	CNST	A165	(3)
Blueprint Reading & Drafting	CNST	A190	(4)
Residential Electrical Wiring	CNST	A275	(5)
First Aid and CPR*	HLED	A112	(2)
Technical Math	TECH	A040	(3)
(Or)			
Electrical Problem Solving	ELEC	A047	(3)

Total: (17)

Suggested electives:

Intro to Construction	CNST	A170	(3)
Supervision & Project Management	CNST	A250	(3)
Refrigeration Principles	HVAC	A100	(3)
Air Conditioning Principles	HVAC	A101	(3)

*EMT A100 may be substituted for HLED A112

RESIDENTIAL CONSTRUCTION

Professional Upgrade Certificates

Students may earn a Certificate of Completion in any of the subject areas specified.

CERTIFICATES OF SPECIALIZATION

Required Courses

Course			Units
Basic Carpentry			
Building Construction	CNST	A180	(5)
Building Construction	CNST	A185	(5)
			(10)

Finish Carpentry

Cabinet Making	CNST	A114	(4)
Building Code & Law	CNST	A195	(3)
Residential Finish Carpentry	CNST	A240	(5)

(12)

Concrete & Masonry

Building Code & Law	CNST	A195	(3)
Concrete Construction	CNST	A210	(5)
Masonry Construction	CNST	A260	(3)

(11)

Residential Utilities

Plumbing 1	CNST	A265	(4)
Residential Electrical Wiring	CNST	A275	(5)

(9)

General Contracting & Development

Construction Estimating	CNST	A220	(3)
Land & Building Development	CNST	A225	(3)
Contractor's Business Practice	CNST	A235	(3)
			(9)

Construction Field Management

Blueprint Reading & Drafting	CNST	A190	(4)
Construction Inspection	CNST	A230	(3)
Supervision & Project Mgmt	CNST	A250	(3)
			(10)

Introduction to Construction

Cabinet Making	CNST	A114	(4)
Intro to Construction	CNST	A170	(3)
Intro to Computer Appl (Or)	CIS	A100	(3)
Computer Use in Technology	CHT	A100	(3)
			(10)

Construction Basics

Construction Safety/CAL-OSHA	CNST	A165	(3)
Blueprint Reading & Drafting	CNST	A190	(4)
Building Code & Law	CNST	A195	(3)
			(10)

COSTUME CAREERS

The following certificates represent skill levels and job titles found in the entertainment technology industry. The certificate programs all require the same core set of courses. The certificates build skills toward higher levels of employment.

Program Outcomes

Students will be able to:

- Analyze research and discuss a play in terms of technical and production requirements.
- Collaborate with others to produce costumes for performance.
- Demonstrate the ability to complete assignments in their area of technical expertise safely and accurately.

CORE CURRICULUM

Required Courses

Course			Units
Beg Clothing Techniques*	FASH	A100	(3)
History of Fashion	FASH	A120	(1.5)
Intro to Theatre	THEA	A100	(3)
Costume Crafts	THEA	A178	(3)
OCC Theatre Repertory (Or)	THEA	A141	(3)
Summer Theatre Festival Play Production (take both 1st & 2nd 9 wks) (Or)	THEA THEA	A144 A171	(4) (4)
Elizabethan Play Wkshp & Production (Or)	THEA	A172	(3)
Classic American Play Production (Or)	THEA	A173	(2)
Children's Theatre Wkshp & Prdctn (Or)	THEA	A174	(2)
Rehearsal & Performance	THEA	A215	(2)
Total:			(17.5)

*Experienced sewers may demonstrate competency in techniques listed under Fashion A100 and A101 by taking Fashion A105, Sewing Skills Assessment.

Suggested Elective:

Careers in Fashion	FASH	A115	(3)
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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.

Program Outcomes

Students will be able to:

- Organize, maintain and repair costumes.
- Collaborate with others and assist performers with costumes during performances.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Costume Core Curriculum			(17.5)
Applied Textiles & Design	FASH	A110	(3)
OCC Theatre Repertory	THEA	A141	(3)
Make-up	THEA	A177	(3)
Internship Academy	ITRN	A392	(1-2)
Total:			(27.5 -28.5)

Suggested electives:

Inter Clothing Techniques	FASH	A101	(3)
OCC Theatre Repertory	THEA	A141	(3)
Play Production	THEA	A171	(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.

Program Outcome

Students will be able to construct and alter costumes using appropriate machinery, tools and techniques.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Costume Core Curriculum			(17.5)
Inter Clothing Techniques* (3)	FASH	A101	(6)
Industrial Sewing Techniques	FASH	A102	(2)
Tailoring	FASH	A130	(2)
Alterations	FASH	A137	(2)
Couture Techniques	FASH	A233	(2)
Internship Academy	ITRN	A392	(1-2)
Total:			(32.5-33.5)

*Course must be taken twice.

Suggested electives:

Flat Pattern Techniques	FASH	A150	(3)
Play Production	THEA	A171	(2)

*Experienced sewers may demonstrate competency in techniques listed under Fashion A100 and A101 by taking Fashion A105, Sewing Skills Assessment.

COSTUME FIRST HAND

The First Hand assists the Cutter/Draper in preparing costumes for fittings. High standards of costume production and a basic knowledge of patterning/cutting and advanced costume construction are essential. The First Hand may help with the training and supervision of stitchers.

Program Outcomes

Students will be able to:

- Assist the cutter/draper in a costume shop in the creation of patterns and assembly instructions for costumes.
- Assist the cutter/draper in cutting out fabrics and overseeing construction of costumes.
- Assist the cutter/draper in fittings.
- Pattern and cut simple garment items.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Costume Stitcher Curriculum			(32.5-33.5)
Flat Pattern Techniques	FASH	A150	(3)
Draping	FASH	A235	(2)
Internship Academy*	ITRN	A392	(2-4)
Total:			(41.5-42.5)

Suggested elective:

Play Production	THEA	A171	(2)
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—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.

The Culinary Arts Department provides students with Associates Degrees in Culinary Arts, Occupational Certificates, and career and technical education. The department serves the economic and workforce development needs of the local community and is committed to student success.

Program Outcome

Students will be prepared for entry-level employment in a commercial kitchen.

CAREER AND CERTIFICATE PROGRAMS

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	Fall			
Intro to Hospitality Industry	CA	A100	(3)	
Culinary Principles 1	CA	A120	(3)	
Principles of Baking 1	CA	A124	(2)	
Pantry	CA	A149	(2)	
Sanitation & Safety	FSM	A160	(3)	
Food Service Math/Accounting	FSM	A240	(4)	
	Spring			
Culinary Principles 2	CA	A122	(3)	
Emergency Medical Care (3) (Or)	EMT	A100	(2-3)	
First Aid & CPR (2)	HLED	A112		
Intro to Nutrition Concepts (2) (Or)	FN	A140	(2-3)	
Nutrition (3)	FN	A170		
Food Production Management	FSM	A151	(2)	
Directed Practice*	FSM	A286	(2)	
	Total:		(28-30)	

*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.

Program Outcome

Students will be prepared for employment as professional and competent culinarians.

CERTIFICATE OF ACHIEVEMENT

Required prerequisite:

Culinary Arts Certificate of Achievement

Course	Required Courses			Units
	Fall			
Garde Manger 1	CA	A200	(2)	
Culinary Principles 3	CA	A245	(3)	
Dining Room Service	FSM	A190	(2)	
Supervision & Training Tech	FSM	A260	(3)	
	Subtotal:		(28-30)	

Spring

Principles of Baking 2	CA	A126	(2)	
Garde Manger 2	CA	A255	(2)	
Ala Minute Continental Cooking	CA	A265	(2)	
Menu Planning & Purchasing	FSM	A250	(3)	
Restaurant Management	FSM	A285	(3)	
	Subtotal:		(22)	
	Total:		(50-52)	

Suggested electives:

Catering	FSM	A284	(3)	
E-Marketing and Sales	HTT	A240	(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.

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.

Program Outcome

Students will be prepared for entry-level employment as professional and competent bakers, pastry cooks, or pastry entrepreneurs and meet the needs of retail and wholesale baking and pastry establishments.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	Fall			
Principles of Baking 1	CA	A124	(2)	
Sanitation & Safety	FSM	A160	(3)	
Food Service Math/Accounting	FSM	A240	(4)	
	Spring			
Principles of Baking 2	CA	A126	(2)	
Directed Practice	CA	A236	(2)	
Intro to Nutrition Concepts (Or)	FN	A140	(2)	
Nutrition	FN	A170	(3)	
	Fall			
Principles of Pastry Arts	CA	A226	(3)	
Directed Practice	CA	A236	(2)	
	Total:		(20-21)	

Suggested electives:

Color and Design: Two-Dimensional	ART	A110	(3)	
Freehand Drawing	ART	A120	(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.

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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.

Program Outcome

Students will be prepared for employment as professional and competent culinarians and certification as a cook by the American Culinary Foundation.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
FIRST YEAR			
First Semester			
Culinary Principles 1	CA	A120	(3)
Sanitation & Safety	FSM	A160	(3)
Second Semester			
Intro to Hospitality Industry	CA	A100	(3)
Culinary Principles 2	CA	A122	(3)
SECOND YEAR			
Third Semester			
Principles of Baking 1	CA	A124	(2)
Food Service Math/Accounting	FSM	A240	(4)
Intro to Nutrition Concepts (2)	FN	A140	(2-3)
(Or)			
Nutrition (3)	FN	A170	
Fourth Semester			
Menu Planning & Purchasing	FSM	A250	(3)
Supervision & Training Tech	FSM	A260	(3)
THIRD YEAR			
Fifth Semester			
Food Production Management	FSM	A151	(2)
Dining Room Service	FSM	A190	(2)
Sixth Semester			
Garde Manger	CA	A200	(2)
Restaurant Management	FSM	A285	(3)
Emergency Medical Care (3)	EMT	A100	(2-3)
(Or)			
First Aid & CPR (2)	HLED	A112	
Total:			(37-39)

NOTE: FSM A160, Sanitation and Safety, is a prerequisite to all laboratory classes.

Program sequence may be modified to suit individual student needs.

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.

Program Outcomes

Graduates will:

Be competent entry-level Culinary and Food Science assistants meeting the employment needs of the community.

Communicate and work effectively with Chefs and Food Scientists and clientele.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Fall			
Culinary Principles	CA	A120	(3)
Pantry	CA	A149	(2)
Careers in Dietetics/Food Sci	FN/NC	A100	(1)
Nutrition	FN	A170	(3)
Food Production Management	FSM	A151	(2)
Sanitation & Safety	FSM	A160	(3)
Intermediate Algebra	MATH	A030	(3)
(Or)			
Technical Math	TECH	A040	(3)
Spring			
Principles of Baking	CA	A124	(3)
Food Science	FN	A195	(4)
Menu Planning & Purchasing	FSM	A250	(3)
Preparatory General Chemistry	CHEM	A130	(4)
(Or)			
Principles of Chemistry	CHEM	A100	(3)
Internship Academy Level 2	ITRN	A393	(2-4)
Total:			32-33

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 Degree requirements and have Orange Coast College certify their General Education coursework before CSU transfer.

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 A255, Advanced Garde Manger and CA A265, Ala Minute Continental Cooking to enhance their culinary skills.

Culinology® students should obtain materials from the Transfer Center for complete details on transferable courses.

Program Outcomes

Graduates will:

Be competent entry-level Culinary and Food Science assistants meeting the employment needs of the community.

Communicate and work effectively with Chefs and Food Scientists and clientele.

Be able to transfer to selected colleges in Culinology®.

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.

Required Courses

Course			Units
Culinary Principles	CA	A120	(3)
Principles of Baking	CA	A124	(3)
Pantry	CA	A149	(2)
Garde Manger	CA	A200	(2)
Preparatory General Chemistry	CHEM	A130	(4)
General Microbiology	BIOL	A210	(5)
Careers in Dietetics/Food Sci	FN/NC	A100	(1)
Nutrition	FN	A170	(3)
Food Science	FN	A195	(4)
Sanitation & Safety	FSM	A160	(3)
Food Production Management	FSM	A151	(2)
Menu Planning & Purchasing	FSM	A250	(3)
Internship Academy Level 2	ITRN	A393	(2-4)
Intro to Statistics	MATH	A160	(3)
(Or)			
Honors Intro to Statistics	MATH	A160H	(3)
(Or)			
Statistics for Behavioral Sci	PSYC	A160	(3)
Total:			(40)

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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, tap 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.

Program Outcome

Students will be able to:

1. Demonstrate knowledge of proper alignment, use of turnout and ability to apply alignment corrections in a teaching situation.
2. Communicate effectively through movement and words.
3. Successfully design and write a lesson plan appropriate to the level and age of the target students.
4. Construct and teach a dance phrase in a particular style: modern dance, ballet, tap, jazz, hip hop or world dance.
5. Incorporate three learning modes and an exercise "progression" in teaching methodology.
6. Correctly count and set tempo in duple and triple meter for a live dance accompanist or for recorded music.
7. Teach a technique or creative movement dance class for children or adults.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Pilates Mat Work (Or)	DANC	A108	(.5-2)
Pilates Apparatus & Mat Work	DANC	A128	
Kinesiology for Dance	DANC	A119	(3)
Improvisation	DANC	A150	(1)
Advanced Dance Composition	DANC	A162	(3)
Music for Dancers	DANC	A170	(2)
Appreciation of Dance	DANC	A200	(3)
Rehearsal & Performance*	DANC	A201	(1)
Dance Profession Seminar	DANC	A205	(2)
Dance Methodology	DANC	A210	(3)
Repertoire	DANC	A211	(1-4)
Internship Academy (Or)	ITRN	A392	(1-4)
Internship Academy	ITRN	A393	
Subtotal:			(20.5-28)

Select at least ten (10) units of dance technique courses from at least four different dance styles:

CONTINUED NEXT PAGE



Intro to World Dance	DANC	A133	(.5-2)
Classical Dance of India	DANC	A137	(.5-2)
Jazz Dance 3-4	DANC	A143	(1-2)
Ballet 3-4	DANC	A144	(.5-2)
Modern Dance 3-4	DANC	A145	(.5-2)
Tap 3-4	DANC	A146	(.5-2)
Flamenco Dance 2	DANC	A147	(.5-2)
Mid-Eastern Dance 2	DANC	A148	(.5-2)
			(10)
		Total:	(30.5-38)

*Must perform in one student dance concert.

Suggested electives:

Anatomy & Physiology	BIOL	A221	(3)
Intro to Business	BUS	A100	(3)
Personal Financial Success	BUS	A120	(3)
Creativity for Children	EC	A131	(3)
Health Education	HLED	A100	(3)
Fitness & Health	HLED	A134	(3)
Child Development	HMDV	A180	(3)
Intro to Psychology	PSYC	A100	(3)
Interpersonal Communication	SPCM	A100	(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.

Program Outcomes

Students will be able to:

- Demonstrate effective movement principles and the elements of space, shape, energy and rhythm/time.
- Perform at least one of the following world dance forms with appropriate vocabulary skills and styling at an intermediate/advanced level: Flamenco, Classical Indian Dance, African Dance, and Middle Eastern Dance.
- Demonstrate proficiency in vocabulary, traditions, and cultural knowledge for three or more World Dance forms studied at OCC.
- Communicate effectively through movement and words.
- Demonstrate skills required to work in commercial or artistic areas of ethnic dance.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Mid-Eastern Dance 1	DANC	A130	(.5-2)
Flamenco Dance 1	DANC	A135	(.5-2)
Classical Dance of India	DANC	A137	(.5-2)
Dances of Africa	DANC	A138	(.5-2)
Music for Dancers	DANC	A170	(2)
Appreciation of Dance	DANC	A200	(3)
Rehearsal & Performance*	DANC	A201	(1)
(And)			
Repertoire	DANC	A211	(1-4)
(Or)			
Performing Dance Ensemble	DANC	A203	(3)
Dance Profession Seminar	DANC	A205	(2)
Dance Methodology	DANC	A210	(2.5)
Multicultural Behavior	ANTH	A150	(3)
Internship Academy	ITRN	A392	
(Or)			(1-4)
Internship Academy	ITRN	A393	
Subtotal:			(17.5-29.5)

Select eight (8) units of ethnic dance technique from the following:

Latin Dance Styles	DANC	A116	(.5-2)
Intro to World Dance	DANC	A133	(.5-2)
Folk Dance	DANC	A142	(.5-2)
Flamenco Dance 2	DANC	A147	(.5-2)
Mid-Eastern Dance 2	DANC	A148	(.5-2)

(8)

Select two (2) units from the following:

Modern Dance 1	DANC	A101	(.5-2)
(Or)			
Modern Dance 3-4	DANC	A145	(.5-2)
Ballet 1	DANC	A110	(.5-2)
(Or)			
Ballet 3-4	DANC	A144	(.5-2)
Jazz Dance 1	DANC	A120	(.5-2)
(Or)			
Jazz Dance 3-4	DANC	A143	(1-2)
Tap 1	DANC	A125	(.5-2)
(Or)			
Tap 3-4	DANC	A146	(.5-2)

(2)

Total: (27.5-39.5)

*Must perform in one student dance concert.

Suggested electives:

Nonverbal Behavior	ANTH	A105	(3)
Comparative Cultures	ANTH	A110	(3)
World Ethnology	ANTH	A285	(3)
Pilates Mat Work	DANC	A108	(.5-2)
Pilates Apparatus & Mat Work	DANC	A128	(.5-2)
Kinesiology for Dance	DANC	A119	(3)
Improvisation	DANC	A150	(1)
Ethnic Groups in United States	ETHS	A150	(3)
History & Appreciation of Music	MUS	A100	(3)
World Religion	PHIL/RLST	A110	(3)
Eastern Thought	RLST	A150	(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 Specialization 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.

Program Outcomes

Upon completion of this certificate the student will be able to:

1. Demonstrate and/or identify beginning through advanced Pilates exercises for mat and apparatus.
2. Describe the basic principles of Pilates and explain their relevance to a Pilates program.
3. Design a lesson plan for a Pilates mat and apparatus class.
4. Teach a Pilates class using appropriate cueing and demonstration.
5. Identify common alignment problems and describe proper modifications and/or solutions.

CERTIFICATE OF SPECIALIZATION

Required prerequisite:

Current First Aid/CPR certification

Required Courses

Course			Units
Pilates Mat Work	DANC	A108	(1)
Kinesiology for Dancers	DANC	A119	(3)
Pilates Apparatus & Mat Work	DANC	A128	(4)
Pilates Methodology	DANC	A129	(2)
Pilates as a Profession	DANC	A151	(1)
Advanced Pilates Seminar	DANC	A208	(1.5)
Internship Academy-Level 2	ITRN	A392	(2)
Subtotal:			(14.5)

Select three (3) units from the following:

Strength & Stretch	DANC	A106	(.5-2)
Conditioning for Dance	DANC	A107	(.5-2)
Yoga for Dancers	DANC	A115	(.5-2)
Dance Workout/Maturing Body	DANC	A118	(.5-2)
Gyrokinesis®	DANC	A139	(.5-2)

(3)

Total: (17.5)

Suggested electives:

Anatomy-Physiology	BIOL	A221	(4)
Dance Profession Seminar	DANC	A205	(2)
Dance Methodology	DANC	A210	(3)
Fitness & Health	PE	A134	(3)
Intro to Adapted P E	PE	A268	(2.5)
Fitness/Exercise Testing	PE	A284	(3)
Strength & Conditioning/Theory	PE	A289	(3)

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.

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.

Program Outcome

The outcome of the program is to meet the needs of the local health care community by preparing students for employment as a professional and competent registered dental assistant.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Fall Semester			
Dental Anatomy	DA	A100	(2)
Chairside Techniques 1	DA	A110	(3)
Dental Materials	DA	A120	(3)
Preventive Dentistry	DA	A130	(1)
Dental Radiography 1	DA	A140	(3)
Biomedical Sciences	DA	A150	(2)
Clinical Experience 1	DA	A160	(1)
Intersession			
Clinical Experience 2	DA	A163	(1)

Spring Semester

First 14 weeks

Chairside Techniques 2	DA	A115	(2)
Expanded Functions	DA	A125	(2)
Dental Radiography 2	DA	A145	(2)
Clinical Experience 3	DA	A165	(2.5)
Prin Bus & Prac Mgmt	DA	A175	(1.5)

Last 2 weeks (32 Hrs/Week)

Clinical Experience 4	DA	A168	(1)
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Total: (27)

Suggested electives:

Intro to Computer Appl	CIS	A100	(3)
Becoming a Master Student	COUN	A102	(2)
Freshman Composition	ENGL	A100	(3)
Ethics	PHIL/RLST	A120	(3)
Introductory Psychology	PSYC	A100	(3)
Interpersonal Communication	SPCM	A100	(3)
Public Speaking	SPCM	A110	(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.

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 (CAAHEP).

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.

Program Outcome

The outcome of the program is to prepare students as competent Diagnostic Medical Sonographers for employment in the imaging field as professionals to meet community needs, and apply the concept of life-long learning through professional growth activities.

Program Admission:

1. Allied Health 010 course – application and orientation.
2. Students must complete Associate of Science degree graduation requirements and the program prerequisites prior to acceptance to the program.

Required prerequisites:			
Health Occupations	ALH	A010	(.5)
Medical Terminology	ALH	A111	(3)
Anatomy-Physiology	BIOL	A221	(4)

Subtotal: (7.5)

Recommended preparation:

Becoming a Master Student	COUN	A102	(2)
Technical Math*	TECH	A040	(3)

*(or Math A010 or higher or placement at Math A030 level)

Required Courses

Course			Units
Fall			
Patient Care	ALH	A115	(2.5)
Human Diseases	ALH	A120	(2)
Sectional Anatomy for Imaging	DMS	A123	(4)
Sono Physics/Instrumentation	DMS	A150	(4.5)
Spring			
OB/GYN Sonography	DMS	A126	(3)
Intro to Vascular Ultrasound	DMS	A155	(2.5)
Pathophysiology	DMS	A161	(3)
Intro to Scanning Practice	DMS	A165	(3)
Clinical Experience 1 (8 hrs/wk - 16 wks)	DMS	A166	(2)
Summer			
Clinical Experience 2 (40 hrs/wk - 8 wks)	DMS	A167	(5)
Fall			
Advanced Vascular Ultrasound	DMS	A255	(2.5)
Clinical Experience 3 (32 hrs/wk - 16 wks)	DMS	A271	(7)
Abdominal Sonography	DMS	A274	(3)
Intersession			
Clinical Experience 4 (40 hrs/wk - 4 wks)	DMS	A276	(2)
Spring			
Sonographic Review	DMS	A275	(3)
Clinical Experience 5 (36 hrs/wk - 16 wks)	DMS	A281	(9)
Subtotal:			(58)
Total:			(65.5)

A "C" grade is required in all prerequisite and required program courses

Suggested elective:

Ethics	PHIL/RLST	A120	(3)
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**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

Program Outcomes

Graduates will:

1. Be competent entry-level Dietetic Technicians meeting the employment needs of the community.
2. Communicate and work effectively with an interdisciplinary workforce and clientele of the community.
3. Participate in personal growth and lifelong learning activities

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	ALH	A010	(.5)
Medical Terminology	ALH	A111	(3)
Sanitation & Safety*	FSM	A160	(3)

Subtotal: (6.5)

Required Courses

Course			Units
First Semester			
Patient Care	ALH	A115	(2.5)
Quantity Foods Preparation*	CA	A150	(4)
Nutrition*	FN	A170	(3)
Supervision & Training Tech*	FSM	A260	(3)
Careers in Dietetics/Food Sci	NC/FN	A100	(1)

CONTINUED NEXT PAGE

Second Semester

Applied Nutrition	FN	A171	(2)
Food Production Management*	FSM	A151	(2)
Health Care Field Exper*	NC	A175	(3)
Intro Med Nutrition Therapy*	NC	A180	(3)

*These courses meet the California Department of Health requirement for Dietetic Service Supervisor.

Completion of the first year with a "C" grade in all courses is required before beginning second year.

Course			Units
Third Semester			
Anatomy-Physiology	BIOL	A221	(4)
Menu Planning & Purchasing	FSM	A250	(3)
Life Cycle Nutrition: Mother/Infant	FN	A144	(1)
Life Cycle Nutrition: Children	FN	A145	(1)
Life Cycle Nutrition: Later Years	FN	A146	(1)
Intermediate Nutrition Care	NC	A280	(2)
Supervised Practice 1	NC	A281	(3)
Fourth Semester			
Applied Pharmacology	ALH	A130	(2)
Food Science (4)	FN	A195	(4-5)
(Or)			
Introductory Chemistry (5)	CHEM	A110	
Advanced Nutrition Care	NC	A285	(2)
Supervised Practice 2	NC	A286	(3)
Subtotal:		(49.5-50.5)	
Total:		(56-57)	

Suggested electives:

Human Diseases	ALH	A120	(2)
Current Issues Food/Nutr/Food Sci	FN	A199	(.5-1)
Child Development	HMDV	A180	(3)
Ethics	PHIL/RLST	A120	(3)
Introductory Sociology	SOC	A180	(3)
Interpersonal Communication	SPCM	A100	(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.

Program Outcomes

Students will be able to:

1. Demonstrate skill in designing utilizing InDesign and Illustrator software.
2. Demonstrate techniques in digital lettering and Typography.
3. Prepare digital files for printing.
4. Create a portfolio utilizing a variety of design techniques for the purpose of gaining employment and/or acceptance to an Art College or University.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
First Semester			
Color & Design 2-D	ART	A110	(3)
Freehand Drawing	ART	A120	(3)
Intro to Computer Graphics	DMAD	A181	(3)
Second Semester			
Lettering/Digital Typography	DMAD	A115	(4)
History of Graphic Design	DMAD	A151	(3)
Graphic Design	DMAD	A182	(4)
Third Semester			
Illus & Computer Graphics 1	DMAD	A190	(4)
Photo Graphics w/Photoshop1	DMAD	A193	(4)
Interactive Multimedia	DMAD	A200	(4)
Fourth Semester			
Rapid Illustration	DMAD	A117	(4)
Digital Prepress	DMAD	A183	(4)
2-D Animation	DMAD	A280	(4)
Subtotal:		(44)	
Additional course taken at any point:			
Internship Academy	ITRN	A392	(2)
Total:		(46)	

Suggested electives:

CAREER AND CERTIFICATE PROGRAMS

Color & Design 3-D	ART	A111	(3)
Product Illustration 1	ART	A118	(2)
Life Drawing	ART	A121	(3)
Painting 1	ART	A130	(3)
Story Illustration Techniques	ART	A143	(3)
Printmaking 1	ART	A170	(3)
Cartooning 1	ART	A269	(3)
Intro to Business	BUS	A100	(3)
Small Business Ownership	BUS	A240	(3)
Intro to Web Page Design	CIS	A123	(2)
JavaScript Programming	CIS	A171	(2)
ASP .NET Programming	CIS	A224	(4)
Photo Graphics w/Photoshop 2	DMAD	A195	(4)
3-D Computer Graphics Animation	DMAD	A281	(4)
Image Processing Digital Video	DMAD	A262	(4)
Video Workshop	FILM	A110	(3)
Digital Film/Video Editing	FILM	A194	(3)
Intro to Humanities	HUM	A100	(3)
Principles of Advertising	MKTG	A130	(3)
Basic Photography	PHOT	A120	(3)
Art Photography	PHOT	A283	(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.

Program Outcomes

Students will be able to:

Design and create website projects that demonstrate originality, navigation innovation, engagement with image and text relationships and website construction skills.

Demonstrate proficiency in the basic skills of 3D Computer Animation, including but not limited to: Modeling, mapping, shading, lighting and rendering.

Apply a variety of sound synchronization modes to an animation project dependent on whether the sound will be streamed or event driven.

CERTIFICATE OF ACHIEVEMENT

Required Courses		Units	
Courses			
First Semester			
Color & Design 2-D	ART	A110	(3)
Freehand Drawing	ART	A120	(3)
Intro to Computer Graphics	DMAD	A181	(3)
Second Semester			
Photo Graphics w/Photoshop1	DMAD	A193	(4)
Video Workshop	FILM	A110	(3)
Computers in Music	MUS	A102	(3)
Basic Photography	PHOT	A120	(3)
Third Semester			
History of Media Arts	DMAD	A150	(3)
Image Processing Digital Video	DMAD	A262	(4)

2-D Animation	DMAD	A280	(4)
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Fourth Semester

Interactive Multimedia	DMAD	A200	(4)
3-D Computer Graphics Animation	DMAD	A281	(4)

Subtotal: (38)

Additional course taken at any point: Internship Academy	ITRN	A392	(2)
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(2)

Select one (1) from the following:

Contemporary Art History	ART	A102	(3)
Illus & Computer Graphics 1	DMAD	A190	(4)
Digital Video Compositing	DMAD	A263	(4)
His & Appr of Cinema	FILM	A100	(3)
History & Aesthetics of Photography	PHOT	A130	(3)

(3-4)

Total: (43-44)

Suggested electives:

Color & Design 3-D	ART	A111	(3)
Life Drawing	ART	A121	(3)
Story Illustration Techniques	ART	A143	(3)
Photo Graphics w/Photoshop 2	DMAD	A195	(4)
Film Production	FILM	A240	(4)
Digital Film/Video Editing	FILM	A194	(3)
Fundamentals of Music	MUS	A115	(3)
Intro to Sound Reinforcement	MUS	A236	(3)
Recording Techniques	MUS	A261	(2)
Art Photography	PHOT	A283	(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**

Program Outcomes

Students will be able to:

1. Produce a digital presentation of a specific retail venue, illustrating continuity of theme through physical appearance, room settings, signage, merchandise, and website presentation.
2. Create the packaging for a product that will include product graphics and design, the merchandising concept for the retail venue, and an initial event or promotion to launch the product.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	Fall			
Color & Design 2-D	ART	A110	(3)	
Freehand Drawing	ART	A120	(3)	
Exhibition Design (Gallery)	ART	A145	(3)	
Intro to Display & Visual Presentation	DVP	A180	(3)	
Principles of Advertising	MKTG	A130	(3)	
	Spring			
Color & Design 3-D	ART	A111	(3)	
Graphic Design	DMAD	A182	(4)	
Basic Photography	PHOT	A120	(3)	
	Total:		(25)	

Suggested electives:

Contemporary Art History	ART	A102	(3)
Rapid Illustration Techniques	DMAD	A117	(4)
Basic Comp Aided Design/Draft	DRAF	A150	(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.

Program Outcome

Students will be able to use AutoCAD software to create, modify, reproduce and archive industry representative drawings.

CERTIFICATE OF ACHIEVEMENT

Required prerequisite:

Architectural Drafting Certificate of Achievement	(19)
(Or)	
Electro-Mechanical Design/Drafting Certificate of Achievement	(19)
(Or)	
Mechanical Design/Drafting Certificate of Achievement	(22)

Subtotal: (19-22)

Course	Required Courses			Units
	Fall			
Basic Comp Aided Dsgn/Draft	DRAF	A150	(4)	
	Spring			
Select one or more of the following:				
Adv Comp Aided Dsgn/Draft- Electro-Mechanical	DRAF	A156	(4)	
CADD Mechanical	DRAF	A157	(4)	
CADD Architectural (4)	DRAF	A158	(4)	
	Total:		(27-38)	

The student is encouraged to work towards attaining an Associate Degree in conjunction with the certificate.

Suggested electives:

Intro to Computer Appl	CIS	A100	(3)
Intro to 3D CAD	DRAF	A159	(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.

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.

Program Outcome

Upon completion of the Mechanical Design / Drafting certificate of Achievement students will be able to read and create industry level working drawings.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	Fall			
Basic Drafting Practices Manufacturing Processes	DRAF	A110	(4)	
	MACH	A195	(3)	
Spring				
Engineering Drafting Design 1 Dimensioning	DRAF	A115	(4)	
	DRAF	A160	(4)	
Fall				
Engineering Drafting Design 2 Technical Math	DRAF	A120	(4)	
	TECH	A040	(3)	
Total:			(22)	
Suggested electives:				
CADD Mechanical	DRAF	A157	(4)	
Intro to 3D CAD	DRAF	A159	(4)	
Intro to Machine Shop	MACH	A100	(3)	
Metallurgy	MACH	A190	(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.

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.

Program outcome

Students will be able to use AutoCAD software to create, modify, reproduce, and archive industry representative drawings.

CERTIFICATE OF SPECIALIZATION

Required Courses			
Course			Units
Basic Comp Aided Dsgn/Draft	DRAF	A150	(4)
And select one (1) of the following:			
CADD Architectural	DRAF	A158	(4)
CADD Mechanical	DRAF	A157	(4)
Total:			(8)

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.

Program Outcomes

Students who successfully complete the certificate of specialization will be able to read and use Y14.5M 1994 Geometric Dimensioning and Tolerancing standards on industry level drawings.

CERTIFICATE OF SPECIALIZATION

Required Courses			
Course			Units
Dimensioning	DRAF	A160	(4)
Dimensioning & Tolerancing	MACH	A175	(3)
Total:			(7)



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
Prin/Pract of Tchg Yng Children	EC	A155	(3)
Guidance for Young Children	EC	A157	(3)
Observing & Recording Child Behavior	EC	A165	(2)
Emergency Medical Care-Children	EMT	A145	(1)
Child Development	HMDV	A180	(3)
Family-School-Community	HMDV	A190	(3)
			(15)

Select one (1) from the following:

Current Issues in E C	EC	A199	(.5)
Learning Title 22	EC	A261	(.5)
Disaster Preparedness	EC	A262	(.5)
Child Abuse ID & Referral	EC	A263	(.5)
			(.5)

Total: (15.5)

Choose OPTION 1 or 2 or 3 to Complete the Certificate of Achievement.

OPTION 1—Infant & Toddler Teacher

(Birth to 2 years)

Program Outcome

The objective of the program is to meet the needs of the local child care programs by preparing students for entry-level employment as a professional and competent infant/toddler teacher.

Required Courses

Course			Units
E C Core Curriculum			(15.5)
Teaching in a Diverse Society	EC	A126	(3)
Early Childhood Laboratory	EC	A156	(2)
Infant/Toddler Curriculum	EC	A218	(2)
Infant & Toddler Programs	EC	A220	(3)
Infant & Toddler Field Experience	EC	A221	(3)
Infant Development & Relationships	HMDV	A184	(3)
			(16)

Total: (31.5)

OPTION 2—Preschool Teacher

(2-5 years)

Program Outcome

The objective of the program is to meet the needs of the local child care programs by preparing students for entry level employment as a professional and competent preschool teacher.

Required Courses

Course			Units
E C Core Curriculum			(15.5)
Early Childhood Laboratory	EC	A156	(2)
Language Arts in Preschool	EC	A130	
(Or)			(3)
Language/Literacy Development	HMDV	A280	
Creativity for Children	EC	A131	
(Or)			(3)
Science for Young Children	EC	A132	
Preschool Programs-Curriculum	EC	A200	(3)
Early Childhood Field Experience	EC	A201	(3)
			(14)

Select one (1) from the following:

Intro to E C Education	EC	A105	(3)
Teaching in a Diverse Society	EC	A126	(3)
Health Safety & Nutrition	EC	A127	(3)
The Exceptional Child	HMDV	A210	(3)
			(3)

Total: (35.5)

OPTION 3—Early Intervention Aide

Program Outcome

The objective of the program is to meet the needs of the local child care programs by preparing students for entry level employment as a professional and competent early interventionist aide.

Required Courses

Course			Units
E C Core Curriculum			(15.5)
Early Childhood Laboratory	EC	A156	(2)
Bldg Partnerships w/Families	EC	A174	
(Or)			(3)
Teaching In a Diverse Society	EC	A126	
Inclusion Child w/Disabilities	EC	A240	(3)
Field Exp Child w/Special Needs	EC	A241	(3)
The Exceptional Child	HMDV	A210	(3)
			(14)

Select one (1) from the following:

Preschool Programs-Curriculum	EC	A200	(3)
Infant & Toddler Programs	EC	A220	(3)
Early Primary Curriculum: Materials & Methods	EC	A230	(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.

Program Outcome

The objective of the program is to meet the needs of the local child care programs by preparing students for entry-level employment as a professional and competent child care director.

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	EC	A275	(3)
Early Childhood Management	EC	A276	(3)
Life Cycle Nutrition: Children	FN	A145	(1)
Human Relations & Supervision	MGMT	A115	(3)
			(10)
Select 1.5 units from the following:			
Current Issues in E C	EC	A199	(.5-2)
Learning Title 22	EC	A261	(.5)
Disaster Preparedness	EC	A262	(.5)
Child Abuse ID & Referral	EC	A263	(.5)
			(1.5)
Total:			(43) or (44) 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.

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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.

Program Outcome

The objective of the program is to meet the needs of the local child care programs by preparing students for entry-level employment as a professional and elementary school teacher aide.

CERTIFICATE OF ACHIEVEMENT

Required Courses				
Course				Units
Educational Appl of Technology	CIS	A112	(2)	
Teach in Diverse Contemp Clrms	EDUC	A102	(1)	
The Teaching Profession	EDUC	A200	(3)	
Freshman Composition	ENGL	A100	(3)	
World Regional Geography	GEOG	A100	(3)	
Child Development	HMDV	A180	(3)	
Middle Childhood Development & Guidance	HMDV	A182	(3)	
Family-School-Community	HMDV	A190	(3)	
Language/Literacy Development	HMDV	A280	(3)	
Activity-Based Statistics	MATH	A103	(3)	
Math for Elem Teachers 1	MATH	A104	(3)	
Intro to Government	PSCI	A180	(3)	
Public Speaking	SPCM	A110	(3)	
Subtotal:			(36)	

Select one (1) from the following:

Principles of Biology	BIOL	A100	(4)	
Earth Science for Teachers	GEOL	A106	(4)	
			(4)	

Select one (1) from the following:

World Civilizations to 17th Cen	HIST	A102	(3)	
History of U.S. to 1876	HIST	A170	(3)	
			(3)	

Select at least six (6) units from the following:

Appreciation of Dance	DANC	A200	(3)	
Fundamentals of Music	MUS	A115	(3)	
Drama & Acting	THEA	A105	(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.

Program Outcome

The objective of the program is to meet the needs of the local child care programs by preparing students for entry level employment as a professional and competent preschool teacher.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course				Units
Current Issues in E C	EC	A199	(.5)	
School-Age Creative Activities	EC	A229	(3)	
School-Age Field Experience	EC	A231	(3)	
Emergency Medical Care-Children	EMT	A145	(1)	
Family-School-Community	HMDV	A190	(3)	
Middle Childhood Development & Guidance	HMDV	A182	(3)	
Subtotal:			(13.5)	

Select one (1) of the following:

Teaching in a Diverse Society	EC	A126	(3)	
Creativity for Children	EC	A131	(3)	
Science for Young Children	EC	A132	(3)	
Prin/Pract of Tchg Yng Children	EC	A155	(3)	
Early Primary Curriculum: Materials & Methods	EC	A230	(3)	
Language/Literacy Development	HMDV	A280	(3)	
			(3)	

Total: (16.5)

FAMILY CHILDCARE PROVIDER

Program Outcome

The objective of the program is to meet the needs of the local child care programs by preparing students for entry level employment as a professional and competent family child care provider.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course				Units
Prin/Pract of Tchg Yng Children	EC	A155	(3)	
Emergency Medical Care-Children	EMT	A145	(1)	
Life Cycle Nutrition: Children	FN	A145	(1)	
Child Development	HMDV	A180	(3)	
Family-School-Community	HMDV	A190	(3)	
Subtotal:			(11)	

Select one (1) of the following:

Preschool Programs-Curriculum	EC	A200	(3)	
School-Age Creative Activities	EC	A229	(3)	
Infant Development & Relationships	HMDV	A184	(3)	
			(3)	

Total: (14)

ELECTRONICS TECHNOLOGY

The Electronics Engineering Technology Program at Orange Coast College prepares students for employment and career advancement in the diverse fields and industries that apply electrical and electronic technologies.

The program trains students from a broad range of skill levels. Some of these students will embark on career paths; others will earn career advancement skills. These students include High School juniors, seniors and graduates, post-secondary re-entry, assemblers and operators seeking a Certificate of Achievement, technicians earning an Associates of Science, Technologist, Engineers, Scientist and project management professionals seeking or with earned Baccalaureate, Graduate and Post-Doctoral degrees.

The EET student that earns a certificate of achievement inculcates life-long learning as a necessary career skill. Therefore, the EET program at OCC encourages all students to earn an associate of science degree and or transfer to the four year universities for advanced degrees.

The EET graduate is prepared to confidently take third party certification exams recognized nationally and globally recognized by these diverse industry sectors the certifications include but are not limited to:

- CompTia, Certified A+ Technician**
- International Systems Automation Society, Certified Control Systems Technician**
- ETA-International, Certified Electronics Technicians**
- ETA-I, Biomedical Electronics Technician – BMD**
- FCC, General Radio Operators License**
- IPC J-STD 001 Electronic Assembler Workmanship Certification**
- IPC J-STD 001 Electronic Soldering Workmanship Certification**

Program Outcomes

Students successfully completing the Electronics Technology Program at Orange Coast College will be able to compete for employment opportunities and take third party certification exams that are recognized nationally and globally. The employment outlook in Orange County and surrounding continues to be excellent. Employment opportunities also exist in many related fields, such as computer networking, communication systems, automation & motor control, heating, ventilation and air conditioning, avionics, biomedical instrumentation, and engineering. Orange Coast College offers individual certificates of Specialization and Achievement in the specialized service areas of maintenance, assemblers, engineering tech, computer hardware, automation & motor controls, and communication.

ELECTRONICS MAINTENANCE

CERTIFICATE OF SPECIALIZATION

These core courses prepare students for entry-level employment in industry sectors that require skills in the basic fundamentals of electricity, electronics, schematic reading, assembly and test instruments used to manufacture, maintain and operate electronic and electrical systems. These core courses make up the foundation for the certificates of achievement offered by the Electronics Technology Program.

Required Courses			
Course			Units
Elec Problem Solving	ELEC	A047*	(3)
Intro to Digital Logic	ELEC	A135	(3.5)
Intro to Basic Computer Installation	ELEC	A146	(3)
D.C. Circuits	ELEC	A150	(3)
A.C. Circuits	ELEC	A155	(3)
Total:			(15.5)

*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 Core			(15.5)
Electronic Laboratory	ELEC	A170	(1)
Total:			(16.5)

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 Core			(15.5)
Electronic Laboratory	ELEC	A170	(1)
Applied Digital Circuits	ELEC	A245	(4)
Automation II Semiconductor Motor Control Circuits	ELEC	A260	(4)
Subtotal:			(24.5)

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Select three (3) units from the following:

G.R.O.L. & Avionics Rules & Regulations	AMT	A188	(1.5)
Computer Use in Technology	CHT	A100	(3)
Computer Installation & Repair Automation 1-	ELEC	A246	(3)
Programmable Logic controllers	ELEC	A253	(4)
Electronic Troubleshooting	ELEC	A290	(3)

Total: (27.5-28.5)

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

Electronics Maintenance Core			(15.5)
Applied Digital Circuits	ELEC	A245	(4)
Computer Installation & Repair	ELEC	A246	(3)

Total: (22.5)

Suggested electives:

Computer Use in Technology	CHT	A100	(3)
Intro to Computer Appl	CIS	A100	(3)
Intro to Computer Info Systems	CIS	A111	(3)

**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 Core			(15.5)
Automation 1- Programmable Logic Control	ELEC	A253	(4)

Subtotal: (19.5)

Select three (3) units from the following:

Computer Installation & Repair	ELEC	A246	(3)
Automation II Semiconductor Motor Control Circuits	ELEC	A260	(4)
Internship Academy – Level 2	ITRN	A392	(3)

Total: (25-26)

**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 Core			(15.5)
G.R.O.L. & Avionics Rules & Regulations	AMT	A188	(1.5)
Communications systems	ELEC	A215	(3)
Automation II Semiconductor Motor Control Circuits	ELEC	A260	(4)

Subtotal: (24)

Select three (3) units from the following:

Computer Installation & Repair	ELEC	A246	(3)
Electronic Troubleshooting	ELEC	A290	(3)
Internship Academy – Level 2	ITRN	A392	(3)

Total: (27)

EMERGENCY MEDICAL TECHNICIAN- I /BASIC

EMT-1/Basic certification is required to work for an ambulance service or in an emergency department and may be required for lifeguards, ski patrol and fire fighters. The EMT-1/Basic provides the care necessary to preserve life and to prevent disability among the acutely ill and the seriously injured and assist and communicate with other healthcare providers with a higher scope of practice.

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. Special emphasis is placed on proper patient moving techniques and transport to definitive and appropriate medical care.

Successful completion of the EMT-1 course qualifies the student to sit for the National Registry of Emergency Medical Technicians' certifying examination, and therefore obtain EMT Basic certification in any California County.

Program Outcome

The graduate of the Emergency Medical Technology program will be prepared for entry-level employment as a professional and competent Emergency Medical Technologist and meet the needs of the local health care community. The EMT-1/Basic course is a prerequisite for paramedic training. Job opportunities are good.

CERTIFICATE OF SPECIALIZATION

Required Prerequisite: Valid American Heart Association Healthcare Provider CPR

Program Recommended Preparation: EMT A100

Required Courses

Course			Units
EMT-1/Basic*	EMT	A150	(6)
EMT-1 Clinical Internship	EMT	A151	(.5)
Total:			(6.5)

Suggested electives:

Medical Terminology	ALH	A111	(3)
Anatomy-Physiology	BIOL	A221	(4)
Interpersonal Communication	SPCM	A100	(3)

*Note: American Heart Association Healthcare Provider CPR or successful completion of EMT A100 within the last fourteen (14) months is a prerequisite for EMT A150. Concurrent enrollment in EMT A151 is required. The ability to read, write and comprehend English at the English A100 level is highly desirable and will help the student succeed.

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.

Program Outcomes

Upon completion of this certificate students will be able to:

Analyze, research and discuss a play in terms of technical and production requirements.

Collaborate with others to produce a live stage performance.

Demonstrate the ability to complete assignments in his/her area of technical expertise safely and accurately.

CORE CURRICULUM

Required Courses

Course			Units
Internship Academy	ITRN	A393	(3)
Intro to Theatre	THEA	A100	(3)
Stage Crew Activity	THEA	A170*	(2)
OCC Theatre Repertory	THEA	A141*	(6)
(Or)			
Summer Theatre Festival	THEA	A144	(8)
Play Production	THEA	A171*	(4)
(Or)			
Elizabethan Play Wkshp & Production	THEA	A172	(6)
(Or)			
Classic American Play Production	THEA	A173	(4)
(Or)			
Children's Theatre Wkshp & Prdctn	THEA	A174	(4)
(Or)			
Rehearsal & Performance	THEA	A215	(4)
Total:			(18)

(*2 semesters required)

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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.

Program Outcomes

Upon completion of this certificate students will be able to:

- Read and interpret technical drawings and painters' elevations.
- Layout out and recreate designs accurately from designer's specifications.
- Create accurate colors and textures
- Demonstrate the ability to choose appropriate tools, techniques & materials for each task.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Entertainment Core Curriculum			(18)
History/Apprec Western Art	ART	A100	(3)
History/Apprec Western Art	ART	A101	(3)
Color & Design 2-D	ART	A110	(3)
Freehand Drawing	ART	A120	(3)
Perspective	ART	A125	(3)
Painting 1	ART	A130	(3)
Stage Scenery	THEA	A175	(3)
Total:			(39)

Suggested electives:

Color & Design 3-D	ART	A111	(3)
Life Painting	ART	A236	(3)
Intro to Computer Graphics	DMAD	A181	(3)
Rendering & Rapid Visualization	ID	A260	(2)
Elements of Stage Design (And)	THEA	A271	(3)
History of Architecture 1 (3)	ARCH	A290	
History of Architecture 2 (3)	ARCH	A296	
(Or)			(6)
History Arch/Furnishings 1 (3)	ID	A180	
History Arch/Furnishings 2 (3)	ID	A190	

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.

Program Outcomes

Upon completion of this certificate students will be able to:

- Maintain, prepare and operate stage lighting equipment.
- Demonstrate the ability to collaborate with others to produce lighting during performances.
- Understand and follow stage lighting safety procedures.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Entertainment Core Curriculum			(18)
Elec Problem Solving	ELEC	A047	(3)
Technical Electronics	ELEC	A140	(3)
Stage Lighting	THEA	A176	(3)
Total:			(27)

Suggested electives:

Intro to Digital Logic	ELEC	A135	(3.5)
Communications Systems	ELEC	A215	(3)
Electronic Troubleshooting	ELEC	A290	(3)
Fundamentals of Lighting	ID	A210	(3)

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.

Program Outcomes

Upon completion of this certificate students will be able to:

- Read and interpret technical drawings.
- Follow designers' specifications to build scenic units accurately
- Choose appropriate tools, techniques & materials for each task.

CERTIFICATE OF ACHIEVEMENT

Required courses

Course			Units
Entertainment Core Curriculum			(18)
Blueprint Reading & Drafting	CNST	A190	(4)
Technical Math	TECH	A040	(3)
Stage Scenery	THEA	A175	(3)
Arc & Oxy Welding	WELD	A100	(3)
Total:			(31)

Suggested electives:

Furniture Making & Design	CNST	A116	(4)
History Arch/Furnishings 1	ID	A180	(3)
History Arch/Furnishings 2	ID	A190	(3)
Practical Math	MATH	A005	(3)
Elements of Stage Design	THEA	A271	(3)

—See also *COSTUME CAREERS*

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.

Program Outcomes

Graduates will possess the necessary skills for employment as consumer affairs specialists, family life educators, or education program specialists. In addition, graduates are prepared for transfer as an FCS major to selected colleges.

Course	Required Courses		Units
Clothing Design & Selection	FASH	A170	(3)
Applied Color/Design Theory	FASH/ID	A175	(3)
Principles Clothing Construction	FASH	A180	(3)
Life Management	FCS	A180	(3)
Nutrition	FN	A170	(3)
Principles of Food	FN	A180	(3)
Sanitation & Safety	FSM	A160	(3)
Child Development	HMDV	A180	(3)
Fund of Interior Design	ID	A100	(3)
Total:			(27)

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

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.

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

Required Courses

Course	Required Courses	Units
Applied Textiles & Design	FASH A110	(3)
Careers in Fashion	FASH A115	(3)
History of Fashion	FASH A120	(1.5)
Street Style	FASH A121	(1.5)
Clothing Design & Selection	FASH A170	(3)
Fashion Merchandising Concepts	FASH A177	(3)

Total: (15)

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DESIGN

Program Outcome

The outcome of the program is to prepare students for entry-level employment as a professional and competent fashion designer in the fields of designing, technical designing, and merchandising and meet the needs of the local fashion industry.

Certificate of Achievement

Required Courses

Course			Units
Fashion Core Curriculum			(15)
Color & Design 2-D	ART	A110	(3)
Freehand Drawing	ART	A120	(3)
Intro to Computer Graphics	DMAD	A181	(3)
Beg Clothing Techniques	FASH	A100	(3)
Industrial Sewing Techniques	FASH	A102	(2)
Trend Forecasting	FASH	A118	(3)
Design in Everyday Life	FASH	A135	(2)
Flat Pattern Techniques	FASH	A150	(3)
Applied Color & Design Theory	FASH/ID	A175	(3)
Fashion Internship	FASH	A181	(2)
Professional Practices	FASH	A182	(2)
Fashion Illustrating Tech	FASH	A255	(3)
Fashion Dsgn/Production Concepts & App	FASH	A260	(3)
Total:			(50)

Suggested electives:

Intro to Art	ART	A107	(3)
Color & Design 3-D	ART	A111	(3)
Intro International Business	BUS	A118	(3)
Business Math	BUS	A125	(3)
Business English	BUS	A138	(3)
Intro to Computer Appl	CIS	A100	(3)
Illus & Computer Graphics 1	DMAD	A190	(4)
Inter Clothing Techniques	FASH	A101	(3)
Draping	FASH	A235	(2)

PRODUCTION/PRODUCT DEVELOPMENT

Program Outcome

The outcome of the program is to prepare students for entry-level employment as a competent professional in the fields of patternmaking, sample-making, technical design, sourcing management, production management, quality control supervising, grading, marker making, costing/spec production, pre-production merchandising and meet the needs of the local fashion industry.

Certificate of Achievement

Required Courses

Course			Units
Fashion Core Curriculum			(15)
Beg Clothing Techniques	FASH	A100	(3)
Int Clothing Techniques* (3)	FASH	A101	(6)
Industrial Sewing Techniques	FASH	A102	(2)
Flat Pattern Techniques	FASH	A150	(3)
Pattern Tech	FASH	A155	(2.5)
Fashion Internship	FASH	A181	(2)
Professional Practices	FASH	A182	(2)
Fashion Dsgn/Production Concepts & App	FASH	A260	(3)
Computerized Pattern System	FASH	A266	(2)
Total:			(40.5)

*Course must be taken twice

Suggested electives:

Intro to International Business	BUS	A118	(3)
Business Math	BUS	A125	(3)
Business English	BUS	A138	(3)
Intro to Computer Appl	CIS	A100	(3)
Draping	FASH	A235	(2)
International Marketing	MKTG	A150	(3)

APPAREL CONSTRUCTION

Program Outcome

The outcome of the program is to prepare students for entry-level employment as a competent professional in the fields of garment construction, alterations, patternmaking, tailoring, alterations, and dressmaking and meet the needs of the local fashion industry.

Certificate of Achievement

Required Courses

Course			Units
Fashion Core Curriculum			(15)
Beg Clothing Techniques	FASH	A100	(3)
Inter Clothing Techniques* (3)	FASH	A101	(6)
Industrial Sewing Techniques	FASH	A102	(2)
Tailoring	FASH	A130	(2)
Alterations	FASH	A137	(2)
Pattern Tech	FASH	A150	(3)
Flat Pattern Application	FASH	A155	(2.5)
Fashion Internship	FASH	A181	(2)
Professional Practices	FASH	A182	(2)
Couture Techniques	FASH	A233	(2)
Draping	FASH	A235	(2)
Total:			(43.5)

*Course must be taken twice.

Note: Experienced sewers may demonstrate competency in techniques listed under Fashion A100 and A101 by taking Fashion A105.

FASHION MERCHANDISING

Program Outcome

The outcome of the program is to prepare students for entry-level employment as a professional and competent fashion merchandiser in the fields of retail management, retail buying, special events and promotions, visual merchandising, image/fashion consulting, and public relations.

Certificate of Achievement

Required Courses			Units
Course			
Fashion Core Curriculum			(15)
Intro to Display & Visual Presentation	DVP	A180	(3)
Trend Forecasting	FASH	A118	(3)
Applied Color/Design Theory	FASH	A175	(3)
Fashion Internship	FASH	A181	(2)
Professional Practices	FASH	A182	(2)
Spec Events Coordination	FASH	A225	(3)
Human Relations & Supervision	MGMT	A115	(3)
(Or)			
Retail Store Management	MKTG	A200	(3)
Professional Selling	MKTG	A110	(3)
Retail Buying	MKTG	A220	(3)
Total:			(40)

Suggested electives:

Financial Acct	ACCT	A101	(4)
Intro International Business	BUS	A118	(3)
Business Math	BUS	A125	(3)
Business Communication	BUS	A139	(3)
Professional Communication	BUS/MKTG	A239	(3)
Intro to Computer Appl	CIS	A100	(3)
Small Business Ownership	MGMT	A240	(3)
Direct Mail/Marketing	MKTG	A142	(1.5)
Interpersonal Communication	SPCM	A100	(3)
(Or)			
Public Speaking	SPCM	A110	(3)
Internship Academy	ITRN	A392	(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**

Program Outcome

The outcome of the program is to prepare students for entry-level employment as a competent professional in the field of clothing construction and the use of high-speed sewing equipment and meet the needs of the local fashion industry.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Sewing Lab	FASH	A050	(.5-2)
Beg Clothing Techniques	FASH	A100	(3)
Int Clothing Techniques* (3)	FASH	A101	(6)
Industrial Sewing Techniques	FASH	A102	(2)
Total:			(11.5-13)

*Course must be taken twice

Suggested electives:

Alterations	FASH	A137	(2)
Internship Academy-Level 2	ITRN	A392	(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.

Program Outcomes

The Film/Video program offers a Certificate of Achievement that, when completed, gives the student the basic skills required for entry-level employment in the film, video, television, multi-media and entertainment industries in the areas of producing, directing, camera operation, lighting, sound and editing.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Fall			
Video Workshop	FILM	A110	(3)
Intro to Radio, TV & Film	FILM	A150	(3)
Spring			
TV Production	FILM	A155	(3)
Digital Film/Video Editing 1	FILM	A194	(3)
Fall			
Hist & Appr of Cinema	FILM	A100	(3)
Film Production	FILM	A240	(4)
Spring			
TV Production 1	FILM	A255	(3)
Electronic Field Production	FILM	A265	(4)
Subtotal:			(26)

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Select at least ten (10) units from the following:

Broadcast Journalism	BRCT	A105	(3)
Scriptwriting	ENGL	A127	(3)
Film as Literature	ENGL	A148	(3)
Great Directors of Cinema	FILM	A104	(3)
Home Video Mktg/Distribution	FILM	A112	(3)
Film/Video Sound	FILM	A193	(3)
Special Projects	FILM	A260	(2)
Television Lab	FILM	A261	(2)
Film/Video Editing 2	FILM	A264	(3)
Digital Cinema	FILM	A270	(4)
Theatre Directing	THEA	A275	(3)
Motion Graphics and Video Compositing with Adobe After effects	DMAD	A263	(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, strength 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.

FITNESS SPECIALIST

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.

Program Outcomes

Upon completion of the Fitness Specialist program, students will have the knowledge, skills and experience necessary to assess and evaluate an individual's level of physical fitness and design appropriate exercise programming to improve physical fitness. Students will be qualified to for careers as fitness instructors, exercise testing technicians, strength coaches, or personal fitness trainers.

CERTIFICATE OF ACHIEVEMENT

Required prerequisite:

Current First Aid/CPR Certification

Required Courses

Course			Units
Anatomy-Physiology	BIOL	A221	(4)
Fitness and Health	PE	A134	(3)
Movement Analysis	PE	A274	(3)
Sports Management	PE	A278	(3)
Sports Medicine	PE	A281	(3)
Fitness & Exercise Testing	PE	A284	(3)
Strength Conditioning/Theory	PE	A289	(3)
Internship Academy	ITRN	A392	(1)
		Subtotal:	(23)

Select one (1) course from the following:

Nutrition, Fitness & Perf	HLED	A136	(3)
Fitness Programs I	PE	A107	(2)
Drugs & Sports	PE/HLED	A138	(3)
			(3)
		Total:	(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

Program Outcome

The outcome of the program is to prepare students for entry-level employment as a competent Food Service supervisor to meet the needs of the local hospitality (food service) community.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	Fall	Spring	
Quantity Foods Preparation Intro to Nutrition Concepts (2) (Or)	CA	A150	(4)
	FN	A140	(2-3)
Nutrition (3)	FN	A170	(3)
Intro to Hospitality Industry	FSM	A100	(3)
Sanitation & Safety	FSM	A160	(3)
Dining Room Service	FSM	A190	(2)
Spring			
Food Production Management	FSM	A151	(2)
Dining Room Management	FSM	A210	(3)
Food Service Math/Accounting	FSM	A240	(4)
Supervision & Training Tech	FSM	A260	(3)
Restaurant Management	FSM	A285	(3)
Total:			(29-30)

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.

Program Outcome

The outcome of the program is to meet prepare students for entry-level employment as a competent Food Service supervisor and meet the needs of the local Hospitality (Food Service) industry.

Required prerequisite:

Restaurant Supervision Certificate of Achievement

	Subtotal:	(29-30)
Recommended Preparation:		
Intro to Computer Appl	CIS	A100 (3)

Course	Required Courses		Units
	Fall	Spring	
Menu Planning & Purchasing Directed Practice*	FSM	A250	(3)
	FSM	A286	(2)
	HTT	A286	(3)
	PSYC	A100	(3)
Catering Directed Practice*	FSM	A284	(3)
	FSM	A286	(2)
Total:			(16)
Total:			(45-46)

Suggested electives:

Beg Computer Keyboarding 1	CIS	A090	(1.5)
Emergency Medical Care (Or)	EMT	A100	(3)
First Aid & CPR	HLED	A112	(2)

*Supervisory or management position approved by program coordinator.

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QUICK SERVICE

The Quick Service Certificate requirements have been carefully planned for those students interested in following a career in the booming segment of the industry. The Quick Service area is not only demanding but also filled with the excitement that comes from operating a thriving business. This career choice provides unlimited potential for advancement and employment opportunities.

Program Outcome

The outcome of the program is to prepare students for entry-level supervisory employments as a Quick Service professional, thereby meeting the needs of the local Quick Service (Fast Food) community.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Sanitation & Safety	FSM	A160	(3)
Food Service Math/Accounting	FSM	A240	(4)
Supervision & Training Tech	FSM	A260	(3)
Restaurant Management	FSM	A285	(3)
Directed Practice	FSM	A286	(4)
Total:			(17)

CATERING

Students who complete the Catering certificate will be trained to operate a catering business, whether it is 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.

Program Outcome

The outcome of the program is to meet prepare students for professional positions within the industry and to provide the foundation skills for owning and operating their own Catering business meet and the needs of the local Catering community.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Pantry (2) (Or)	CA	A149	(2-4)
Quantity Foods Preparation (4)	CA	A150	
Garde Manger (Or)	CA	A200	(2)
Food Production Management	FSM	A151	
Intro to Nutrition Concepts	FN	A140	(2)
Sanitation & Safety	FSM	A160	(3)
Menu Planning & Purchasing	FSM	A250	(3)
Catering	FSM	A284	(3)
Total:			(15-17)

Suggested electives:

Small Business Ownership	BUS	A240	(3)
Principles of Baking 1	CA	A124	(2)
Food Service Math/Accounting	FSM	A240	(4)
Supervision & Training Tech	FSM	A260	(3)
E-Marketing and Sales	HTT	A240	(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.

Program Outcome

The program will prepare students for successful employment as entry-level Food Service Managers to meet the needs of Child Nutrition Programs (formerly known as School Lunch Programs) in School Districts and preschool programs (i.e. Head Start).

CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
First Semester			
Quantity Foods Preparation	CA	A150	(4)
Nutrition	FN	A170	(3)
Applied Nutrition	FN	A171	(2)
Sanitation & Safety	FSM	A160	(3)
Child Development	HMDV	A180	(3)
Second Semester			
Life Cycle Nutrition: Children	FN	A145	(1)
Child Nutrition Program Mgmt	FSM	A145	(2)
Food Production Management	FSM	A151	(2)
Menu Planning & Purchasing	FSM	A250	(3)
Supervision & Training Tech	FSM	A260	(3)
Catering	FSM	A284	(3)
Total:			(29)

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.

*Upon successful completion, student meets California Department of Health Licensing Requirements for Dietetic Service Supervisor.

Program Outcome

The program will prepare students for successful employment as entry-level Food Service Supervisors to meet the needs of Acute and Long-term Healthcare Facilities.

CERTIFICATE OF ACHIEVEMENT

Required Courses			
Course			Units
Quantity Foods Preparation	CA	A150	(4)
Nutrition	FN	A170	(3)
Food Production Management	FSM	A151	(2)
Sanitation & Safety	FSM	A160	(3)
Supervision & Training Tech	FSM	A260	(3)
Health Care Field Experience	NC	A175	(3)
Intro Med Nutrition Therapy	NC	A180	(3)
Total:			(21)

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.

*Upon successful completion, students meet Dietary Managers' Association criteria for certification and are eligible to take the National Certification Examination.

Program Outcome

The program will prepare students:

For professional employment as entry level Food Service supervisors; and

To advance to positions with greater management responsibilities to meet the needs of acute and long-term healthcare facilities.

CERTIFICATE OF ACHIEVEMENT

Required prerequisite:

Completion of all courses for Dietetic Service Supervisor Certificate of Achievement with a grade of "C" or better

Required Courses			
Course			Units
Patient Care	ALH	A115	(2.5)
Careers in Dietetics/Food Sci	FN/NC	A100	(1)
Applied Nutrition	FN	A171	(2)
Food Service Math/Accounting	FSM	A240	(4)
Menu Planning & Purchasing	FSM	A250	(3)
Catering	FSM	A284	(3)
Interpersonal Communication	SPCM	A100	(3)
Subtotal:			(18.5)
Total:			(39.5)

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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.

*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.

Program Outcomes

Graduates will:

1. Be competent entry-level Dietetic Technicians meeting the employment needs of the community.
2. Communicate and work effectively with an interdisciplinary workforce and clientele of the community.
3. Participate in personal growth and lifelong learning activities.

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

Subtotal: (39.5)

Required Courses

Course			Units
Medical Terminology	ALH	A111	(3)
Anatomy-Physiology	BIOL	A221	(4)
Intermediate Nutrition Care	NC	A280	(2)
Supervised Practice 1	NC	A281	(3)
Advanced Nutrition Care	NC	A285	(2)
Supervised Practice 2	NC	A286	(3)
Life Cycle Nutrition: Mother/Infant	FN	A144	(1)
Life Cycle Nutrition: Children	FN	A145	(1)
Life Cycle Nutrition: Later Years	FN	A146	(1)
Restaurant Management	FSM	A285	(3)

Subtotal: (23)

Total: (62.5)

Suggested elective:

Introductory Sociology	SOC	A180	(3)
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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
POLYSOMNOGRAPHIC TECHNOLOGY
RADIOLOGIC TECHNOLOGY
RESPIRATORY CARE
SCHOOL HEALTH ASSISTANT
SPEECH-LANGUAGE PATHOLOGY
ASSISTANT

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION (HVACR)

The Heating, Ventilation and Air Conditioning (HVACR) 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

Refrigeration relates to the cooling of air or liquids, thus providing lower temperatures to preserve food, cool beverages, make ice, and for many other applications. Air conditioning includes space cooling, heating, humidification, dehumidification, air filtration, and ventilation to condition the air and improve air quality. The field of HVACR Technology is vital to our health and security, from the cryogenic (ultra low temperatures) scientific field to the preservation of our food products to the air conditioning of hospitals and institutions.

CAREER AND CERTIFICATE PROGRAMS

Program Outcomes

Students completing the HVACR Program will be able to:
Advance their knowledge in the field for employment as HVACR technicians, estimators, installer, inspectors and mechanical engineers.

Be prepared to take the EPA Certification test for refrigerants or the NATE Certification test for proficiency in the field of HVACR.

CERTIFICATE OF ACHIEVEMENT

Required Courses*

Course			Units
Computer Use in Technology	CHT	A100	(3)
Air Conditioning & Refrigeration Principles	HVAC	A100	(3)
Basic Electrical for HVACR	HVAC	A101	(3)
Refrigeration Service	HVAC	A102	(3)
Air Conditioning Service	HVAC	A103	(3)
Air Balance	HVAC	A104	(3)
Air Conditioning & Refrigeration Controls	HVAC	A105	(3)
Non-Residential Application for HVACR	HVAC	A106	(3)
Pneumatic Controls 1	HVAC	A110	(3)
Building Automation	HVAC	A140	(3)

Total: **(24)**

*A math competency level equivalent to Tech A040 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

—See *Hospitality, Travel & Tourism*

HOSPITALITY, TRAVEL & TOURISM

The Hotel, Travel & Tourism programs at Orange Coast College are designed for employment or career advancement within the hospitality industry. Whether an individual is a novice or currently employed, these programs strengthen the opportunity for success within the fastest growing industries in southern California.

Career opportunities abound as growth of the hospitality industry continues throughout the United States and the world requiring trained individuals to fill the multitude of varied positions. Students may choose individual courses, certification in areas of specialization, as well as, completion of an Associate in Science Degree.

The Hotel, Travel & Tourism, and Spa Management programs at Orange Coast College use materials from the Educational Institute of the American Hotel & Lodging Association, the world leader in hospitality education and training. Students who successfully complete these courses earn globally recognized certificates from the American Hotel & Lodging Association in addition to college credits applicable toward a Certificate or Associate's Degree at Orange Coast College.

To earn a certificate, complete the required coursework as listed with a "C" or better. At least 50% of all Airline, Hotel, Spa, Meeting/Event, Travel & Tourism coursework must be completed at Orange Coast College.

Students are encouraged to complete the requirements for an Associate in Science degree. Graduation requirements for an Associate degree can be found in the college catalog under Graduation Requirement. With additional coursework, students can prepare for a Bachelor's Degree in this field. For more department information, call (714) 432-5835 x6 or visit the School of Hospitality website at <http://orangeoastcollege.edu>.

Note: Curriculum may be adjusted to meet the needs of students with extensive industry related experience. Evening and weekend courses are available.

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.

Program Outcome

The outcome for the Certificate of Achievement is to prepare students for entry-level employment in airline travel careers and to prepare students for the Associate in Science Degree.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Flight Attendant Qualifications and Opportunities	ARLN	A112	(1.5)
Airline Operations and Terminology	ARLN	A116	(1.5)
Travel Safety Inflight/Ground	ARLN	A119	(1.5)
Airline Service Excellence	ARLN	A120	(1.5)
First Aid/CPR	HLED	A112	(2)
Intro to Hospitality	HTT	A100	(3)
Public Service	HTT	A105	(4)
(Two semesters at 2.0 units each or one semester at 4.0 units)			
Communication Connection	HTT	A114	(1.5)
Interviewing Techniques	HTT	A115	(1.5)
Internship	HTT	A116	(3)
Destination United States	HTT	A122	(1.5)
Cultural Awareness & Etiquette	HTT	A132	(1.5)
Computing for Hospitality/Travel/Tourism	HTT	A134	(1.5)
Homeland Security	HTT	A135	(2)

Subtotal: **(27.5)**

Select at least three (3) units from the following:

Success Strategies	HTT	A133	(3.0)
Internship 2	HTT	A279	(3.0)

(30.5)

Select at least three (3) units from the following:

Destination Northern Europe	HTT	A123	(1.5)
Destination Africa	HTT	A124	(1.5)
Destination The Americas	HTT	A125	(1.5)
Destination Southern Europe	HTT	A126	(1.5)
Destination Eastern Europe	HTT	A127	(1.5)
Destination Pacific Rim	HTT	A128	(1.5)

(3)

Total: **(33.5)**

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Suggested electives:

Conversational Language			(3)
Computer Reservation Systems - APOLLO	HTT	A129	(2.5)
Computer Reservation Systems - SABRE	HTT	A131	(2.5)
Internship 2	HTT	A279	(3)
Interpersonal Communication	SPCM	A100	(3)

ASSOCIATE DEGREES

The outcome of the Associate in Science Degree level is to prepare students for employment as supervisor or manager within the airline industry. In addition, the outcome of this level is for students to transfer.

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.

CORPORATE/CONTRACT FLIGHT ATTENDANT

Corporate aviation is one of the largest growing entities within the aviation community. Since 2001, the corporate side of aviation has flourished, with an increased demand for larger aircraft and "Third Crew" member responsibilities and placements.

CERTIFICATE OF ACHIEVEMENT

Program Outcome

The outcome for the certificate of achievement is to prepare students for entry-level employment as a corporate/contract flight attendant.

Required Courses

Course			Units
Arline Operations/Terminology	ARLN	A116	(1.5)
Travel Safety Inflight/Ground	ARLN	A119	(1.5)
Service Excellence	ARLN	A120	(1.5)
Corporate/Contract Flight Attendant	ARLN	A136	(1)
Culinary Principles 1	CA	A120	(3)
Sanitation & Safety	FSM	A160	(3)
Intro to the Hospitality Industry	HTT	A100	(3)
Public Service	HTT	A105	(4)
(Two semesters at 2.0 units each or one semester at 4.0 units)			
Communication Connection	HTT	A114	(1.5)
Interviewing Techniques	HTT	A115	(1.5)
Internship	HTT	A116	(3)
Destination United States	HTT	A122	(1.5)
Destination the Americas	HTT	A125	(1.5)
Cultural Awareness & Etiquette	HTT	A132	(1.5)
Computing for Hospitality/Travel/Tourism	HTT	A134	(1.5)
Catering Design & Management	HTT	A278	(1)
Supervisory Skill Development	HTT	A282	(1.5)

Total: (33)

HOTEL MANAGEMENT

These courses have been recommended by industry to provide essential preparation to supervise and manage within operational areas in a hotel. Courses have been organized to provide understanding of techniques and knowledge necessary in developing effective leadership and decision making skills and successful communication among all departments contributing to positive guest experiences.

CORE CURRICULUM

Required Courses

Course			Units
Intro to the Hospitality Industry	HTT	A100	(3)
Interviewing Techniques	HTT	A115	(1.5)
Internship 1	HTT	A116	(3)
Cultural Awareness & Etiquette	HTT	A132	(1.5)
Computing for Hospitality/Travel/Tourism	HTT	A134	(1.5)
Enhancing Guest Service	HTT	A180	(3)
Supervisory Skill Development	HTT	A282	(1.5)

Total: (15)

FRONT OFFICE SPECIALIST

Develop essential skills necessary for advancement or employment in a service sector role within the hospitality industry.

Program Outcome

The outcome for the certificate of achievement is to prepare students for entry-level employment within the hotel industry in front office, human resources, sales and marketing careers, and certificate of specialization for meeting & event careers and to prepare students for the Associate in Science Degree.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Hotel Core Curriculum			(15)
Front Office Operations	HTEL	A110	(3)
Guest Services	HTEL	A130	(1)
Internship 2	HTEL	A279	(4)
Housekeeping/Property Operations	HTT	A120	(3)
Reservation/Revenue Management	HTT	A140	(1.5)
E-Marketing and Sales	HTT	A240	(3)
Hospitality Operations	HTT	A285	(3)

Total: (33.5)

HUMAN RESOURCE MANAGEMENT

Gain insight into decision making skills, and organizational understanding for advancement or employment in a human resource role within the hospitality industry.

Program Outcome

The outcome for the certificate of achievement is to prepare students for entry-level employment within the hotel industry in front office, human resources, sales and marketing careers, and certificate of specialization for meeting & event careers and to prepare students for the Associate in Science Degree.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Hotel Core Curriculum			(15)
Supervision & Training Tech	HTEL	A260	(3)
Internship 2	HTT	A279	(4)
Leadership Development	HTT	A281	(2)
Hospitality Operations	HTT	A285	(3)
Hospitality, Travel & Tourism Law	HTT	A286	(3)
Human Resource Management	HTT	A288	(3)
California Labor Law	HTT	A290	(3)
Total:			(36)

SALES AND MARKETING SPECIALIST

Develop essential skills necessary for advancement or employment within a sales or marketing role in the hospitality, event, or meeting management industries.

Program Outcome

The outcome for the certificate of achievement is to prepare students for entry-level employment within the hotel industry in front office, human resources, sales and marketing careers, and certificate of specialization for meeting & event careers and to prepare students for the Associate in Science Degree.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Hotel Core Curriculum			(15)
Principles Event/Meeting Mgmt	HTEL	A265	(1.5)
E-Marketing and Sales	HTT	A240	(3)
Organize/Manage Events & Meetings	HTT	A266	(1.5)
Managing Business Risks	HTT	A267	(1.5)
Incentive Travel	HTT	A268	(1)
Destination Management	HTT	A269	(1)
Meeting/Event Marketing & Sales	HTT	A270	(1.5)
Internship 2	HTT	A279	(4)
Hospitality Operations	HTT	A285	(3)
Total:			(33)

ROOM OPERATIONS SPECIALIST

Associate in Science Degree

These courses have been recommended by industry to provide essential preparation to supervise and manage within operational areas of a hotel. 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 contributing to positive guest experiences.

Program Outcome

The outcome of the Associate in Science Degree level is to prepare students for employment as a supervisor or manager within the hospitality industry and/or to transfer to selected four-year colleges.

ASSOCIATE IN SCIENCE DEGREE PROGRAM

Required Courses

Course			Units
Front Office Specialist (Certificate of Achievement)			(33.5)
Sanitation & Safety	FSM	A160	(3)
Supervision & Training	HTEL	A260	(3)
Hospitality Accounting	HTT	A118	(3)
Internship 2	HTT	A279	(4)
Leadership Development	HTT	A281	(2)
Hospitality, Travel & Tourism Law	HTT	A286	(3)
Human Resource Management	HTT	A288	(3)
Subtotal:			(54.5)

Select a minimum of six (6 units) from the following:

Restaurant Management	FSM	A285	(3)
System - APOLLO	HTT	A129	(2.5)
(Or)			
Computer Reservation System - SABRE	HTT	A131	(2.5)
Homeland Security	HTT	A135	(2)
Destination Management	HTT	A269	(1)
Corporate Meetings & Events	HTT	A271	(1)
Meeting & Conference Practices	HTT	A272	(1)
California Labor Law	HTT	A290	(3)
Conversational Language			(3)
Total:			(60.5)

ASSOCIATE DEGREE

In addition to completion of the required courses this program requires completion of the Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

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MEETING AND EVENT MANAGEMENT

The Meeting and Event Management program focuses on the planner's practical "need to know" tools and skills. Participant's may choose individual courses that meet their needs and interests or complete four core courses, three areas of specialization classes, and a practicum to earn the Certificate of Specialization.

Learn from well-known experienced industry professionals who are eager to share the practical "need to know" tools and skills essential to every successful meeting and event planner. Attain a solid understanding of the myriad details and behind-the-scenes considerations needed to assure your meeting or event is the success you and your clients hoped for.

Convenient online and weekend classes are designed to provide a dynamic learning experience with extensive interaction between students and instructors-through case studies, real-life examples, group work and hands-on activities. Special features include "behind the scenes" visits to hotel meeting facilities and development of a hands-on project.

CERTIFICATE OF SPECIALIZATION

Program Outcome

The outcome for the certificate of specialization is to prepare students for entry-level employment within the hotel industry in front office, human resources, sales and marketing careers, and certificate of specialization for meeting & event careers and to prepare students for the Associate in Science Degree.

Required Courses

Course			Units
Principles Event/Meeting Mgmt	HTT	A265	(1.5)
Organize/Manage Events & Meetings	HTT	A266	(1.5)
Managing Business Risks	HTT	A267	(1.5)
Meeting/Event Marketing & Sales	HTT	A270	(1.5)
Leadership Development	HTT	A281	(2.0)
Supervisory Skill Development	HTT	A282	(1.5)

Subtotal: (9.5)

Select three specialization courses (3 units) from the following:

Incentive Travel	HTT	A268	(1)
Destination Management	HTT	A269	(1)
Corporate Meetings & Events	HTT	A271	(1)
Meeting & Conference Practices	HTT	A272	(1)
Sport Event Management	HTT	A273	(1)
Establish & Operate Event Business	HTT	A274	(1)
Event Fund-Raising/Sponsorship	HTT	A275	(1)
Expo & Trade Show Management	HTT	A276	(1)
Wedding Planning as a Business	HTT	A277	(1)
Catering Design/Management	HTT	A278	(1)

(3)

Take this course after completion of twelve (12) units:

Internship	HTT	A116	(3)
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Total: (15.5)

SPA MANAGEMENT

The popularity of spas in the U.S. has increased dramatically over the past few years and shows no signs of slowing. According to a recent international Spa Association study, the spa industry generated over \$9.7 billion in revenue in 2005. Each year, more spas are being opened across the country creating new jobs for spa professionals.

Orange Coast College is one of the first community college's to offer Spa Management certification. The greater Orange County area is thriving with spas and our program is in a unique position to provide students access to numerous world-class resorts and spas – right in our own back yard.

Coursework in the program provides comprehensive business education and industry input to create a well-rounded educational experience for career success in the Spa market. You will acquire business and management strategies, desirable skills for successful day-to-day operations, combined with long-range strategies necessary for growth and profitability.

With increasing integration of spas in the hotel, resort, medical, healthcare, and tourism industries, spa management professionals are in demand. Our graduates will have the knowledge and skills needed to become leaders in the spa industry.

To earn a certificate, complete the required courses with a minimum grade of "C." At least 50% of all coursework must be completed at Orange Coast College.

CERTIFICATE OF ACHIEVEMENT

Program Outcome

The outcome of this certificate of achievement is to prepare students for entry level employment as a supervisor, manager, director or owner in the spa industry.

Required Courses

Course			Units
Computing Hospitality/Travel/Tourism	HTT	A134	(1.5)
Intro to Spa & Hospitality Operations	HTT	A160	(1.5)
Spa Industry Services & Treatments	HTT	A165	(1.5)
Spa Industry Finance	HTT	A170	(1.5)
Spa Marketing & Retailing	HTT	A175	(1.5)
Enhancing Guest Service	HTT	A180	(3)
Event/Meeting & Spa Practicum	HTT	A280	(3)
Supervisory Skill Development	HTT	A282	(1.5)
Human Resource Management	HTT	A288	(3)

Subtotal: (18)

Choose nine (9) units from the following:

Taking Off in Travel	HTT	A150	(1.5)
Corporate Travel	HTT	A152	(1.5)
Cruise Industry	HTT	A154	(1)
E-Marketing & Sales	HTT	A240	(3)
Managing Business Risks	HTT	A267	(1.5)
Incentive Travel	HTT	A268	(1)
Leadership Development	HTT	A281	(2)
Hotel Operations	HTT	A285	(3)
Hospitality, Travel & Tourism	HTT	A286	(3)

(9)

Total: 27

TRAVEL AND TOURISM

Orange Coast College's Travel and Tourism program prepares individuals for one of the world's fastest growing and most gratifying industries. Students will be exposed to career possibilities in most segments of the travel industry: Tour Operators, Hotels, Cruising, Airline's, Destination Management Organizer, Event Planning, Theme Parks, Car Rentals, Airport Operations, Travel Agencies, Visitor & Convention Bureaus, Corporate Travel Consultant and other related companies. Job advancement in the field often comes quickly and the business lends itself to entrepreneurs, home-based workers, and career changes.

With additional coursework, students can prepare for a Bachelor's Degree in this field. For more departmental information, call (714) 432-5835 x6 or visit the School of Hospitality website at <http://www.orangecoastcollege.edu>.

To earn a certificate, complete the required courses with a minimum grade of "C." At least 50% of all coursework must be completed at Orange Coast College. To earn an Associate in Science Degree, complete the certificate identified below and the General Education Requirement outlined in the Orange Coast College catalog.

CORE CURRICULUM

Course			Units
Intro to the Hospitality Industry	HTT	A100	(3)
Destination United States	HTT	A122	(1.5)
Cultural Awareness & Etiquette	HTT	A132	(1.5)
Computing Hospitality/ Travel/Tourism	HTT	A134	(1.5)
Homeland Security	HTT	A135	(2)
Taking Off in Travel	HTT	A150	(1.5)
Travel and Tourism Workshop	HTT	A151	(1)
Enhancing Guest Service	HTT	A180	(3)
E-Marketing & Sales	HTT	A240	(3)
Destination Management	HTT	A269	(1)
Supervisory Skill Development	HTT	A282	(1.5)
Hospitality, Travel, & Tourism Law	HTT	A286	(3)
And one of the following:			
Computer Reservation Systems - APOLLO	HTT	A129	(2.5)
Computer Reservation Systems - SABRE	HTT	A131	(2.5)
Total:			(26)

CRUISE SPECIALIST

Earn great commissions by booking cruises, one of the fastest growing segments of the travel industry. Learn the basics of the cruise product, cruise classifications, destinations, types of cruises, print resources and non-automated reservations procedures. Identify your "clients" needs and preferences, learn the variables that are available in cruising and select and book the right cruise for any given client.

Program Outcome

The outcome of this certificate of achievement is to prepare students for entry-level employment with airlines, hotels, tour operators, travel agencies, cruise lines, adventure companies, receptive operators, or convention bureaus.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Core Curriculum			(26)
Internship 1	HTT	A116	(3)
Destination Geography (additional 3 units)	HTT	A123-A128	(3)
Selling Vacation Package & Tours	HTT	A153	(1.5)
Cruise Industry	HTT	A154	(1)
Tour Escorting & Management	HTT	A155	(1.5)
Spa Industry Services/Treatments	HTT	A165	(1.5)
Incentive Travel	HTT	A268	(1)
Total:			(38.5)

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TOUR ESCORTING AND MANAGEMENT

This program is designed to assist the travel professional, in becoming a small group tour leader. Determine if you have the skills, knowledge, abilities, and traits you need to be an effective tour leader. Study tour leader roles and responsibilities. Learn conflict-resolution skills and prepare to manage a tour group. See how to polish your resume and market yourself to find a tour leader position with the industry and become a "Leader of the Pack."

CERTIFICATE OF ACHIEVEMENT

Program Outcome

The outcome of this certificate of achievement is to prepare students for entry-level employment with airlines, hotels, tour operators, travel agencies, cruise lines, adventure companies, receptive operators, or convention bureaus.

Required Courses			
Course			Units
Core Curriculum			(26)
Internship 1	HTT	A116	(3)
Destination Geography (additional 3 units)	HTT	A123-A128	(3)
Selling Vacation Package & Tours	HTT	A153	(1.5)
Tour Escorting and Management	HTT	A155	(1.5)
Total:			(35)

DESTINATION MANAGEMENT

The program treats physical, location, and cultural geography as a travel sales product focusing on travel and tourism destinations that are regularly top sellers, according to the American Society of Travel Agents. Instruction is presented with an orientation to location of each destination.

CERTIFICATE OF ACHIEVEMENT

The outcome of this certificate of achievement is to prepare students for entry-level employment with airlines, hotels, tour operators, travel agencies, cruise lines, adventure companies, receptive operators, or convention bureaus.

Required Courses			
Course			Units
Core Curriculum			(26)
Internship 1	HTT	A116	(3)
Destination Geography (additional 6 units)	HTT	A123-A128	(6)
Corporate Travel	HTT	A152	(1.5)
Selling Vacation Package & Tours	HTT	A153	(1.5)
Tour Escorting and Management	HTT	A155	(1.5)
Total:			(39.5)

TRAVEL AGENCY SPECIALIST

This program is designed to provide individuals with the essential business tools to run a business in an efficient and profitable way. In order to be more successful in the future, it is imperative to have a solid understanding of the relationship between revenue sources and cost structures, consider their clients' values, set service and sales goals, develop marketing and business strategies and take advantage of the automation and technologies that offer opportunities for continued growth and financial prosperity.

CERTIFICATE OF ACHIEVEMENT

The outcome of this certificate of achievement is to prepare students for entry-level employment with airlines, hotels, tour operators, travel agencies, cruise lines, adventure companies, receptive operators, or convention bureaus.

Required Courses

Course			Units
Core Curriculum			(26)
Internship 1	HTT	A116	(3)
Destination Geography (additional 3 units)	HTT	A123-A128	(3)
Corporate Travel	HTT	A152	(1.5)
Selling Vacation Package & Tours	HTT	A153	(1.5)
Cruise Industry	HTT	A154	(1)
Tour Escorting and Management	HTT	A155	(1.5)
Incentive Travel	HTT	A268	(1)
Total:			(38.5)

TRAVEL AND TOURISM Associate in Science Degree

Travel and Tourism is the largest industry in the world! It encompasses airline, bus, rail, and ship travel; hospitality enterprises (hotels, motels, resorts); tour packaging; retail and wholesale travel agencies; car rental; etc. Each of these areas has employment needs on several levels: sales, market research and development, packaging and advertising, customer service, operations, and general management. Graduates will find full-time, part-time, and seasonal work in offices, as well as working out of home. Positions are available with corporate and leisure travel agencies, host travel agencies for independent contractors, tour operators, wholesalers, airline consolidators, car rental companies and hotels/motels/resorts.

The associate degree program in Travel and Tourism introduces students to the principles and procedures of domestic and international travel. Emphasis is placed on tourism geography, automated travel systems, and management skills needed to succeed in the travel industry.

Students participate in a term-long internship rotating through various sites, including an international tour operation, the State Tourism Information Booth at a local airport, convention and visitor's bureaus, and tour guiding at a local attraction. The culmination of the internship experience is a tour to a selected destination for which student's research, negotiate, and develop a highly focused itinerary for their eagerly anticipated journey.

Upon completion of the program, students have the opportunity to enter the travel and tourism industry or may choose to continue their studies in the bachelor's degree program of Travel-Tourism Management, Hospitality Management, and International Hotel & Tourism Management.

Program Outcome

The outcome of the Associate in Science Degree level is to prepare students for employment as a supervisor or manager within the travel and tourism industry. In addition, the outcome of this level is for students to transfer.

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.

Required Courses			
Course			Units
Travel Agency Specialist (Certificate of Achievement)			(38.5)
Completion of/or concurrent enrollment			
Destination Northern Europe (Or)	HTT	A123	(1.5)
Destination Africa	HTT	A124	
Destination The Americas	HTT	A125	(1.5)
Destination Southern Europe (Or)	HTT	A126	(1.5)
Destination Pacific Rim	HTT	A128	
Destination Eastern Europe	HTT	A127	(1.5)
Subtotal:			(44.5)

Select a minimum of nine (9) units from the following:

Hospitality Accounting	HTT	A118	(3)
Principles of Meeting & Event Management	HTT	A265	(1.5)
Incentive Travel	HTT	A268	(1)
Corporate Meetings & Events	HTT	A271	(1)
Catering Design & Management	HTT	A278	(1)
Leadership Development	HTT	A281	(2)
Hospitality Operations	HTT	A285	(3)
Human Resource Management	HTT	A288	(3)
Total:			(53.5)

INTERIOR DESIGN

The Interior Design Program at Orange Coast College is dedicated to helping students develop their fullest potential in academic, professional and personal skills, preparing them for a rewarding career in design. This exceptional, multi-level program, developed by educators and industry professionals, promotes an interdisciplinary, equal opportunity education committed to building confident, responsible and socially aware individuals who will contribute to quality of life through interior design. The OCC Interior Design Program Mission is achieved through the following sequential tri-level curriculum.

Level 1 – Interior Merchandising prepares students for employment in retail furnishings and merchandising with a working knowledge of the design process, principles and elements of design, materials and products, and application of color theories.

Level 2 – Interior Design Assistant – Associate Degree in Interior Design furthers the process of education by offering additional knowledge in design history, space planning, drafting, illustration, computer applications, selection and specification of materials and products, lighting, construction documents, building codes, business/professional practices, plus internship and portfolio development. Course information is applied to both residential and commercial design.

Level 3 – Interior Design Professional Level builds upon the foundation of Level 2 by applying added knowledge and technology to more advanced projects. Students in Level 3 are prepared to begin their interior design careers as entry level professional designers and to pursue industry certifications.

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.

Required Courses

Level I - Interior Merchandising

Program Outcome

The outcome for this Interior Design certificate of achievement is to prepare students for entry-level employment in retail furnishing and merchandising and along with meeting Gen Ed Associate in Science requirements to prepare students for the Associate in Science Degree Level 2.

Certificate of Achievement				
Course				Units
First Semester				
Arch Drawing & Design Visual 1	ARCH	A105		(2)
Fundamentals of Interior Design	ID	A100		(3)
Interior Design Studio 1	ID	A105		(3)
Interior Design Careers	ID	A120		(2)
Hist Arch/Furnishings 1	ID	A180		(3)
Second Semester				
CAD 2-D	ARCH	A150		(2)
Interior Materials & Products	ID	A150		(3)
Applied Color/Design Theory	ID	A175		(3)
Hist Arch/Furnishings 2	ID	A190		(3)
Professional Selling	MKTG	A110		(3)
Subtotal:				(27)

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Level 2 - Interior Design Assistant - Associate in Science Degree

Program Outcome

The outcome of the Associate in Science Degree level is to prepare students for entry-level employment as an interior design assistant to a professional interior designer. In addition, the outcome of this level is for students to progress to Level 3 – Interior Design Professional Level and/or for transfer.

Third Semester

Level I Certificate			(27)
BIM 1 for Architecture	ARCH	A155	(2)
Space Planning	ID	A170	(3)
Interior Illustration	ID	A200	(3)
Fundamentals of Lighting	ID	A210	(3)
Business & Professional Practice	ID	A230	(3)

Fourth Semester

BIM 2 for Architecture	ARCH	A156	(2)
Interior Design Studio 2	ID	A215	(3)
Interior Design Const Documents	ID	A220	(3)
Interior Design Internship	ID	A240	(4)

Subtotal: (53)

Level 3 - Interior Design - Professional Level

Program Outcome

The outcome of this Interior Design certificate of achievement is to prepare students for entry-level employment as a professional interior designer and for industry certifications.

Certificate of Achievement*

Fifth Semester

Level I & II Certificate			(53)
Small Business Ownership	BUS	A240	(3)
Codes and Building Systems	ID	A250	(3)
Digital Visualization	ID	A260	(3)
Interior Design Studio 3	ID	A265	(3)

Sixth Semester

Interior Design Studio 4	ID	A275	(3)
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Subtotal: (15)

Total: (68)

Suggested electives:

Color & Design 2-D	ART	A110	(3)
Color & Design 3-D	ART	A111	(3)
Freehand Drawing	ART	A120	(3)
Perspective	ART	A125	(3)
Exhibition Design (Gallery)	ART	A145	(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.

Program Outcomes

Upon successful completion of the certificate of specialization graduates will be able to:

Function effectively in a leadership role using the skills, principles, and tools they have acquired.

Apply the leadership principles they have learned in their personal and/or organizational lives.

Distinguish between the qualities of effective and ineffective leaders.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Personal Leadership	LEAD	A180	3
Organizational Leadership	LEAD	A200	3
Interpersonal Communication	SPCM	A100	3

Total: (9)

MANUFACTURING TECHNOLOGY

OCC's Manufacturing 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 Manufacturing 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.

Program Outcomes

Upon successful completion of the Manufacturing Technology Program students will be able to:

1. Machine precision manufactured parts using conventional lathes and milling machines and perform necessary measurements.
2. Set-up and operate CNC Lathes and Milling Machines.
3. Write part machine programs for controlling CNC lathes and milling machines.
4. Manufacture precision tooling for Dies, Molds, and Prototype tooling.
5. Write advanced CAD/CAM programs for CNC LATHE and Milling Machines.

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
	Fall		
Intro to Machine Shop	MACH	A100	(3)
Lathe	MACH	A105	(5)
Blueprint Reading	MACH	A120	(3)
Computations for Machinists	MACH	A121	(3)
	Spring		
Milling Machine	MACH	A110	(5)
Production Machining Tech	MACH	A115	(4)
		Total:	(23)

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:

Manufacturing Technology—Machinist Certificate of Achievement

Subtotal: **(23)**

Course	Required Courses		Units
	Fall		
CNC Machine Operation	MACH	A125	(3)
	Spring		
CNC Machine Operation 2	MACH	A126	(2)
Intro to CNC & Manual Programming	MACH	A130	(4)
		Total:	(32)

ASSOCIATE DEGREE

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

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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 A133 and A134 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 A100 or Computer Information Systems A100).

CERTIFICATE OF ACHIEVEMENT

Required prerequisite:

Manufacturing Technology—Machinist Certificate of Achievement

Course	Required Courses		Units
	Fall		
CNC Machine Operation	MACH	A125	(3)
	Spring		
CNC Machine Operation 2	MACH	A126	(2)
CNC Programming-Mastercam 1	MACH	A133	(3)
	Summer		
Mastercam Solids	MACH	A142	(2)
	Fall		
CNC Programming-Mastercam 2	MACH	A134	(3)
	Intersession		
Mastercam Lathe	MACH	A141	(1.5)
			(14.5)
			Total: (37.5)

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	A100	(3)
Lathe	MACH	A105	(5)
Milling Machine	MACH	A110	(5)
Production Machining Tech	MACH	A115	(4)
Blueprint Reading	MACH	A120	(3)
Computations for Machinists	MACH	A121	(3)
CNC Machine Operation	MACH	A125	(3)
Intro to CNC & Manual Programming	MACH	A130	(4)
Tool & Cutter Grinding	MACH	A150	(2.5)
Dimensioning & Tolerancing	MACH	A175	(3)
Elementary Metallurgy	MACH	A190	(2)
Tooling	MACH	A200	(2.5)
Arc & Oxy-acetylene Welding	WELD	A100	(3)
			Total: (43)

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 SPECIALIZATION

Required Courses

Course			Units
	Fall		
CNC Machine Operation	MACH	A125	(3)
Intro to CNC & Manual Programming	MACH	A130	(4)
	Spring		
CNC Mach Operation 2	MACH	A126	(2)
			Total: (9)

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 Technology A133 and A134 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 A100 or Computer Information Systems A100).

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 MachineTechnology A126, Advanced CNC Machine Operation.

CERTIFICATE OF SPECIALIZATION

Course	Required Courses		Units
	MACH	A126	
CNC Mach Operation 2	MACH	A126	(2)
CNC Prog-Mastercam 1	MACH	A133	(3)
CNC Prog-Mastercam 2	MACH	A134	(3)
Mastercam Lathe	MACH	A141	(1.5)
Mastercam Solids	MACH	A142	(2)
Total:			(11.5)

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
	Fall	Spring	
Intro to Business (Or) Honors Intro to Bus Intro to Computer Appl Applied Management Interpersonal Communication	BUS	A100	(3)
	BUS	A100H	(3)
	CIS	A100	(3)
	MGMT	A100	(3)
	SPCM	A100	(3)
Business Communication Personal Leadership Human Relations & Supervision	BUS	A139	(3)
	LEAD	A180	(3)
	MGMT	A115	(3)
Organizational Leadership Professional Selling (Or) Public Speaking Professional Communication	LEAD	A200	(3)
	MKTG	A110	(3)
	SPCM	A110	(3)
	MGMT/BUS	A239	(3)
Business Law Internship Academy	BUS	A110	(3)
	ITRN	A392	(3)
Subtotal:			(36)

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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.

Program Outcomes

Upon successful completion of the certificate of achievement in management and leadership studies, graduates will be able to:

Function effectively in a leadership or management role using the skills, principles, and tools they have acquired.

Apply the leadership and management principles they have learned in their personal and/or organizational lives.

Distinguish between the qualities of effective and ineffective leaders and managers.

Analyze the ethical dimensions of effective leaders and managers in everyday conduct and decision making.

Demonstrate effective written and/or oral skills.



Select three (3) units from the following:

Financial Accounting	ACCT	A101	(4)
Managerial Accounting	ACCT	A102	(4)
Personal Financial Success	BUS	A120	(3)
Small Business Ownership	BUS	A240	(3)
Intro to Marketing	MKTG	A100	(3)
Professional Selling	MKTG	A110	(3)
Ethics	PHIL/RLST	A120	(3)
Public Speaking	SPCM	A110	(3)
			(3)
Total:			(39)

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.

Program Outcomes

Upon successful completion of the certificate of achievement in retail management, graduates will be able to:

- Function effectively as a manager in a retail environment using the skills, principles, and tools they have acquired.
- Apply the retail principles they have learned in their professional lives.
- Analyze the ethical dimensions of effective retail managers in everyday conduct and decision making.
- Demonstrate effective written and/or oral skills.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Accounting for Small Business (3)	ACCT	A100	
(Or)			(3-4)
Financial Accounting (4)	ACCT	A101	
Business Math	BUS	A125	(3)
Business Communication	BUS	A139	(3)
Professional Communication	BUS/MGMT	A239	(3)
Intro to Computer Appl	CIS	A100	(3)
Organizational Leadership	LEAD	A200	(3)
Applied Management	MGMT	A100	(3)
Human Relations & Supervision	MGMT	A115	(3)
Intro to Marketing	MKTG	A100	(3)
Retail Store Management	MKTG	A200	(3)
Total:			(30-31)

Suggested electives:

Managerial Accounting	ACCT	A102	(4)
Business Law	BUS	A110	(3)
Business English	BUS	A138	(3)
Small Business Ownership	BUS	A240	(3)
Professional Selling	MKTG	A110	(3)
Retail Buying	MKTG	A220	(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

Program Outcomes

Upon successful completion of the Certificate of Specialization in Management Institute, graduates will be able to:

1. Function effectively in a management position using the skills, principles, and tools they have acquired.
2. Apply the management principles they have learned to effectively manage in a variety of settings.
3. Distinguish between the qualities of effective and ineffective managers.

CERTIFICATE OF SPECIALIZATION

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

Course			Units
Applied Management	MGMT	A100	(3)
Human Relations & Supervision	MGMT	A115	
(Or)			(3)
Organizational Leadership	LEAD	A200	
Professional Communication	BUS/MGMT	A239	(3)
Total:			(9)

MARINER

PROFESSIONAL MARINER

The Professional Mariner Program prepares students for careers in the maritime industry in Southern California and around the world in private or commercial vessel operations:

Large private yachts, Charter yachts
Cruise ships, Passenger ferries
Sport fishing, Commercial fishing
Whale watching, Dive boats
Supply vessels, Work boats, Tug boats
Commercial shipping

These vessels must operate with qualified crew so the curriculum for the Orange Coast College Professional Mariner program was developed with guidance from an Advisory Council of maritime industry professionals who ranked skills and knowledge that they require in their deck crew. Upon completion of the program, there are employment opportunities with competitive salary.

Planned expansion of this program will include courses leading to knowledge, experience and qualification for licenses and certificates that are increasingly required to climb the career ladder as a professional mariner in leadership positions.

PROFESSIONAL MARINER – LEVEL I

Curriculum includes career path identification and job search preparation in the maritime industry, maritime environment, seamanship, marine safety, boat handling, navigation, and boat maintenance. In addition to lecture, most courses include hands-on practical exercises.

Students must be able to swim 50 yards and tread water for 10 minutes. Previous boating experience is advantageous but not required. Facility fees will be charged.

The program may be completed in two semesters. Courses may be taken individually and may be repeated.

Program Outcomes

Upon completion of the Professional Mariner Level 1 Certificate, the student will have the information, training and practical skills to qualify for work as deckhand on private yachts or commercial vessels, with the capability to advance in a marine industry career. The student will have earned their STCW certificate for U.S. Coast Guard Basic Safety Training. The Professional Mariner student will be able to:

Communicate verbally and in writing in a clear manner and with correct nautical protocol.

Identify maritime career paths along with required U.S. Coast Guard licensing requirements.

Demonstrate safe operation and maintenance of vessels.

Demonstrate prevention and safety response in First Aid, Personal Survival and Social Responsibility at sea, as well as fire prevention and response.

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CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Maritime Industry	MARA	A151	(2)
Boat Handling and Seamanship	MARA	A152	(3)
Marine Basic Safety Training	MARA	A153	(4)
Yachtkeeping & Engine Maintenance	MARA	A154	(2)
Navigation for Deckhands	MARA	A155	(2)
Maritime Environment	MARA	A156	(2)

Subtotal: (15)

Select three (3) units from the following:

Any Marine Science			(1-3)
Any Foreign Language			(4-5)
Personal Financial Success	BUS	A120	(3)
Cooking Essentials	FN	A120	(1)
Health Education	HLED	A100	(3)
Personal Leadership	LEAD	A180	(3)
Intro to Sailing	MARA	A147	(1)
Intro to Keel Boats	MARA	A148	(1)
Intro to Ocean Sailing	MARA	A149	(1)
Fitness Programs I	PE	A107	(.5-3)
Strength and Conditioning	PE	A108	(.5-3)
Swimming	PE	A143	(.5-1.5)
Swimming for Fitness	PE	A146	(.5-2.5)

Subtotal: (3)

Total: (18)

CORE CURRICULUM

Required Courses

Course			Units
Intro to Business	BUS	A100	(3)
(Or)			
Honors Intro to Business	BUS	A100H	(3)
Professional Communication	BUS/MGMT	A239	(3)
Intro to Marketing	MKTG	A100	(3)
Professional Selling	MKTG	A110	(3)
Principles of Advertising	MKTG	A130	(3)
International Marketing	MKTG	A150	(3)

Total: 18

Students must complete core curriculum plus nine (9) units from the following list of courses:

Course			Units
Business Math	BUS	A125	(3)
Business English	BUS	A138	(3)
Public Relations	BUS	A140	(3)
Mass Communications	MCOM	A100	(3)
Direct Mail & Marketing	MKTG	A142	(1.5)

(9)

Total: (27)

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

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.

GENERAL MARKETING

CERTIFICATE OF ACHIEVEMENT

Program Outcomes

Upon successful completion of the Certificate of Achievement in General Marketing, graduates will be able to:

Function effectively in a multitude of first-entry marketing positions using the skills, tools and principles they have acquired.

Communicate effectively and persuasively in personal, organizational, and selling environments.

Effectively apply and utilize their acquired knowledge of the principles of marketing to market and/or promote a business, product, or service.

INTERNATIONAL BUSINESS

CERTIFICATE OF ACHIEVEMENT

Program Outcomes

Upon successful completion of the Certificate of Achievement in International Business, graduates will be able to:

Function effectively in an entrepreneurial, managerial, or entry-level international business position using the skills, tools and principles they have acquired.

Effectively apply the international business principles they have learned to effectively facilitate international business transactions in a variety of settings.

Required Courses

Course			Units
Intro International Business	BUS	A118	(3)
Applied International Business	BUS	A119	(3)
Intro to Marketing	MKTG	A100	(3)
Professional Selling	MKTG	A110	(3)
International Marketing	MKTG	A150	(3)
Export/Import Procedures	MKTG	A152	(3)

Subtotal: (18)

Select three (3) units from the following:

Intro to Business (Or)	BUS	A100	(3)
Honors Intro to Business	BUS	A100H	(3)
International Business Law	BUS	A117	(3)
Business Math	BUS	A125	(3)
Professional Communication	BUS/MGMT	A239	(3)
Subtotal:			(3)
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 SPECIALIZATION

Program Outcomes

Upon successful completions of the certificate of specialization in Advertising, graduates will be able to:

1. Function effectively in entry-level advertising positions using the skills, principles, and tools they have acquired.
2. Effectively apply and utilize their acquired knowledge of the principles of advertising to promote a product, service, or business.

Required Courses

Course	Required Courses		Units
Principles of Advertising	MKTG	A130	(3)
Graphic Design (4) (Or)	DMAD	A182	(3-4)
Freehand Drawing (3)	ART	A120	
Mass Communications (Or)	MCOM	A100	(3)
Intro to Radio, TV & Film	FILM	A150	
Total:			(9-10)

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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 SPECIALIZATION

Program Outcomes

Upon successfully completing the Certificate of Specialization in entry-level marketing, graduates will be able to:

1. Function effectively in entry-level marketing positions using the skills, principles, and tools they have acquired.
2. Effectively apply and utilize the marketing principles and techniques they have learned to market a business, product, or service.

Required Courses

Course			Units
Intro to Marketing	MKTG	A100	(3)
Professional Selling	MKTG	A110	(3)
Principles of Advertising	MKTG	A130	(3)
Total:			(9)

International Business

A grade of "C" or better is required in all courses and all courses must be taken at Orange Coast College.

Program Outcomes

Upon successfully completing the Certificate of Specialization in International Business, graduates will be able to:

Function effectively in entry-level international business positions using the skills, principles, and tools they have acquired.

Effectively apply and utilize the international business principles and techniques they have learned to market a business from an international perspective.

CERTIFICATE OF SPECIALIZATION

Program Outcomes

Upon successfully completing the Certificate of Specialization in International Business, graduates will be able to:

Function effectively in entry-level international business positions using the skills, principles, and tools they have acquired.

Effectively apply and utilize the international business principles and techniques they have learned to market a business from an international perspective.

Required Courses

Course			Units
Intro International Business	BUS	A118	(3)
Intro to Marketing	MKTG	A100	(3)
Professional Selling	MKTG	A110	(3)
International Marketing	MKTG	A150	(3)
Total:			(12)

Sales

A grade of "C" or better is required in all courses and all courses must be taken at Orange coast College.

CERTIFICATE OF SPECIALIZATION

Program Outcomes

Upon successful completion of the Certificate of Specialization in Sales, graduates will be able to:

Function effectively in an entry-level sales position using the skills, principles, and tools they have acquired.

Communicate effectively and persuasively in personal, organizational, and selling environments.

Required Courses

Course			Units
Professional Communication	BUS/MGMT	A239	(3)
Professional Selling	MKTG	A110	(3)
Interpersonal Communication	SPCM	A100	(3)
(Or)			
Public Speaking	SPCM	A110	(3)
Total:			(9)

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.

Program Outcome

The graduates of the program will be prepared for entry-level employment as a professional and competent Medical Assistant to meet the needs of the local health care community.

CERTIFICATE OF ACHIEVEMENT

Program recommended preparation:

Intro to Computer Appl CIS A100 (3)

Required Courses

Course			Units
Anatomy-Physiology*	BIOL	A221	(4)
Introductory Psychology*	PSYC	A100	(3)

Fall

Medical Terminology	ALH	A111	(3)
Patient Care (Or)	ALH	A115	(2.5)
Emergency Medical Care	EMT	A100	(3)
Medical Bookkeeping	MA/ACCT	A115	(4)
Intro Med Asst/Transcription	MA	A175	(3)
Medical Insurance Billing	MA	A185	(3)

Spring

Human Disease	ALH	A120	(2)
Business English	BUS	A138	(3)
Clinical Lab Procedures	MA	A135	(2)
Administrative Experience	MA	A186	(2)
Medications/Injections	MA	A286	(1)
Physical/Specialty Exams	MA	A287	(1.5)
Sterile Tech/Minor Surgery	MA	A288	(1)
Specialty Procedures	MA	A289	(1)

Summer

Clinical Experience MA A281 (2)

Total: (38-38.5)

*These two required courses must be taken prior to the awarding of the Certificate of Achievement.

Suggested electives:

Applied Pharmacology	ALH	A130	(2)
Ethics	PHIL/RLST	A120	(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 ACHIEVEMENT

Program recommended preparation:

Intro to Computer Appl CIS A100 (3)

Required Courses

Course **Units**

Fall

Medical Terminology	ALH	A111	(3)
Medical Bookkeeping	MA/ACCT	A115	(4)
Intro Med Asst/Transcription	MA	A175	(3)
Medical Insurance Billing	MA	A185	(3)

Spring

Business English	BUS	A138	(3)
Administrative Experience	MA	A186	(2)

Total: (18)

Suggested electives:

Human Diseases	ALH	A120	(2)
Applied Pharmacology	ALH	A130	(2)
Anatomy-Physiology	BIOL	A221	(4)
Ethics	PHIL/RLST	A120	(3)
Introductory Psychology	PSYC	A100	(3)

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

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CLINICAL

CERTIFICATE OF ACHIEVEMENT

Program recommended preparation:

Intro to Computer Appl CIS A100 (3)

Required Courses

Course			Units
Fall			
Medical Terminology	ALH	A111	(3)
Patient Care	ALH	A115	(2.5)
(Or)			
Emergency Medical Care	EMT	A100	(3)
Intro Med Asst/Transcription	MA	A175	(3)
Spring			
Human Diseases	ALH	A120	(2)
Clinical Lab Procedures	MA	A135	(2)
Medications/Injections	MA	A286	(1)
Physical/Specialty Exams	MA	A287	(1.5)
Sterile Tech/Minor Surgery	MA	A288	(1)
Specialty Procedures	MA	A289	(1)
Summer			
Clinical Experience	MA	A281	(2)

Total: (19-19.5)

Suggested electives:

Applied Pharmacology	ALH	A130	(2)
Anatomy-Physiology	BIOL	A221	(4)
Ethics	PHIL/RLST	A120	(3)
Introductory Psychology	PSYC	A100	(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 SPECIALIZATION

Required Courses

Course			Units
Medical Terminology	ALH	A111	(3)
Medical Bookkeeping	MA/ACCT	A115	(4)
Medical Insurance Billing	MA	A185	(3)

Total: (10)

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.

Program Outcome

The graduate of the Medical Transcription program will be prepared for employment as a professional and competent Medical Transcriptionist to meet the needs of the local health care community.

CERTIFICATE OF ACHIEVEMENT

Program recommended preparation:

Intro to Computer Appl CIS A100 (3)

Required Courses

Course			Units
Fall			
Medical Terminology	ALH	A111	(3)
Business English	BUS	A138	(3)
Intro Med Asst/Transcription	MA	A175	(3)
Beg Medical Transcription	MEDT	A190	(3)
Spring			
Human Disease	ALH	A120	(2)
Anatomy-Physiology	BIOL	A221	(4)
Medical Transcription 2	MEDT	A195	(2)

Total: (20-23)

Suggested electives:

Medical Assisting-Administrative Certificate of Achievement			(18)
Medical Insurance Certificate of Specialization			(10)
Small Business Ownership	BUS	A240	(3)
Ethics	PHIL/RLST	A120	(3)

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

MENTAL HEALTH WORKER

Associate in Science Degree

The Mental Health Worker program at Orange Coast College is a Career and Technical Education (CTE) program that prepares students to serve emotionally, cognitively, and developmentally challenged clients in community facility settings that provide therapeutic intervention, rehabilitation, and recovery services.

Specifically, the program will prepare students to function in a support position under a licensed professional. Mental health workers are employed in private, state, and county settings that provide residential, day-care, intervention, or support programs to serve emotionally, cognitively, and/or developmentally challenged clients. Mental health workers serve child, adolescent, adult, or elderly adult populations. The mental health worker works with clients in the following potential need areas: Psychiatric services, drug and substance abuse programs, traumatic brain injury programs, programs for the developmentally disabled, and/or elder services programs.

Program Outcome

Graduates will be employable as mental health workers in psychiatric services, traumatic brain injury programs, drug and substance abuse programs, programs for the developmentally disabled, and/or elder service programs.

ASSOCIATE IN SCIENCE DEGREE PROGRAM

Required Courses

Course			Units
Cardiopulmonary Resuscitation	HLED	A111	(.5)
Intro to Psychology	PSYC	A100	(3)
Intro to Counseling	PSYC	A125	(4)
Human Life Span Development	PSYC	A130	(3)
Psych of Adult Development	PSYC	A140	(3)
Developmental Psychopathology	PSYC	A150	(3)
Abnormal Psychology	PSYC	A158	(3)
Psychosocial Rehab/Recovery	PSYC	A235	(3)
Field Work/Mental Health Workers	PSYC	A245	(3)
Physiological Psychology	PSYC	A250	(3)
Social Psychology	PSYC	A260	(3)
Psychology of Learning	PSYC	A270	(3)
Total:			(34.50)

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.

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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.

Program Outcomes

Upon completion of this certificate students will be able to:

- Demonstrate knowledge of basic requirements of vocalists, guitarists and pianists
- Working Knowledge of basic studio techniques and equipment applications
- Prepare and deliver an effective sales presentation for a product or service.
- Organize, develop and prepare a written professional sales presentation for a product or service.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		
			Units
	First Semester		
History of Rock	MUS	A109	(3)
Piano 1	MUS	A141	(1)
Voice 1	MUS	A145	(1)
Music as a Business	MUS	A262	(2)
	Second Semester		
Basic Guitar	MUS	A116	(2)
Theory and Ear Training 1	MUS	A180	(5)
Recording Techniques	MUS	A261	(2)
	Third Semester		
Professional Selling	MKTG	A110	(3)
Computers in Music	MUS	A102	(3)
	Subtotal:		(22)

Select five (5) units from the following:

Acct for Small Business	ACCT	A100	(3)
Small Business Ownership	BUS	A240	(3)
Retailing	MKTG	A200	(3)
Beginning Instruments	MUS	A140	(2)
Piano 2	MUS	A142	(1)
Voice 2	MUS	A146	(1)
Classical Guitar 1	MUS	A148	(2)
Studio Guitar 1	MUS	A151	(1.5)
Intro Sound Reinforcement	MUS	A236	(3)
Piano 3	MUS	A241	(2)
Piano 4	MUS	A242	(2)

Total: (27)

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).

Program Outcomes

Upon completion of this certificate students will be able to:

- Create and perform musical compositions utilizing a standard scoring program.
- Create musical compositions utilizing standard music production programs that demonstrate competency in the following techniques:
 - Looping
 - Sequencing
 - Editing
 - Virtual synthesis
- Demonstrate applications of studio recording techniques

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		
		Units	
Intro to Computer Appl	CIS	A100	(3)
Computers in Music*	MUS	A102	(12)
Fundamentals of Music	MUS	A115	(3)
Recording Techniques 1	MUS	A261	(2)

Subtotal: (20)

Select five (5) units from the following:

C++ Programming 1	CS	A150	(4)
Video Workshop	FILM	A110	(3)
Piano 1	MUS	A141	(1)
Piano 2	MUS	A142	(1)
Theory and Ear Training 1	MUS	A180	(5)
Intro Sound Reinforcement	MUS	A236	(3)
Piano 3	MUS	A241	(2)
Piano 4	MUS	A242	(2)

(5)

Total: (25)

*Music A102 (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.

Program Outcomes

Upon completion of this certificate students will be able to:

- Perform musical selections in a variety of popular styles.
- Organize a performing event.
- Develop repertoire for a performing event.
- Develop a professional marketing strategy.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
First Semester			
Musicianship and Ear Training	MUS	A101	(2)
History of Rock	MUS	A109	(3)
Piano 1	MUS	A141	(1)
Theory and Ear Training 1	MUS	A180	(5)
Music Performing Group*			(2)
Second Semester			
Piano 2	MUS	A142	(1)
History of Jazz	MUS	A173	(3)
Theory and Ear Training 2	MUS	A185	(5)
Applied Music	MUS	A290	(2-4)
Music Performing Group*			(2)
Third Semester			
Computers in Music	MUS	A102	(3)
Jazz Improvisation	MUS	A230	(1)
Music as a Business	MUS	A262	(2)
Applied Music	MUS	A290	(2-4)
Music Performing Group*			(2)
Total:			(36-40)

*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 A120. Instrumentalists should choose from Music A127, A132, A133, A150, A230, A233, A234. Guitarists should choose Music A129.

Suggested electives:

Studio Guitar 1	MUS	A151	(1.5)
Studio Guitar 2	MUS	A152	(1.5)
Sophomore Recital	MUS	A240	(.5)
Recording Techniques 1	MUS	A261	(2)

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.

Program Outcomes

Upon completion of this certificate students will be able to:

- Perform musical selections in a variety of popular styles.
- Organize a performing event.
- Develop repertoire for a performing event.
- Develop a professional marketing strategy.
- Record a demo CD.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
First Semester			
Piano 1	MUS	A141	(1)
Popular Vocal Techniques	MUS	A144	(2)
Theory and Ear Training 1	MUS	A180	(5)
Music Performing Group*			(2)
Second Semester			
Musicianship and Ear Training	MUS	A101	(2)
Popular Vocal Techniques	MUS	A144	(2)
Music as a Business	MUS	A262	(2)
Applied Music	MUS	A290	(2-4)
Music Performing Group*			(2)
Third Semester			
History of Jazz	MUS	A173	(3)
Recording Techniques	MUS	A261	(2)
Music as a Business	MUS	A262	(2)
Applied Music	MUS	A290	(2-4)
Music Performing Group*			(2)
Total:			(31-35)

*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 A120. Instrumentalists should choose from Music A127, A132, A133, A150, A230, A233, A234. Guitarists should choose Music A129.

Suggested electives:

Basic Guitar	MUS	A116	(2)
Sophomore Recital	MUS	A240	(.5)
Recording Techniques	MUS	A261	(2)

ASSOCIATE DEGREE

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

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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.

Program Outcomes

Upon completion of this certificate students will be able to:

- Perform musical selections in a variety of popular styles.
- Develop repertoire for a recording event.
- Develop a professional marketing strategy.
- Record a demo CD.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		
			Units
First Semester			
Piano 1	MUS	A141	(1)
Classical Guitar 1	MUS	A148	(2)
Studio Guitar 1	MUS	A151	(1.5)
Theory and Ear Training 1	MUS	A180	(5)
Second Semester			
Musicianship and Ear Training	MUS	A101	(2)
Computers in Music	MUS	A102	(3)
Guitar Ensemble	MUS	A129	(1)
Classical Guitar 2	MUS	A149	(2)
Studio Guitar 2	MUS	A152	(1.5)
Applied Music	MUS	A290	(2-4)
Third Semester			
Guitar Ensemble	MUS	A129	(1)
Jazz Improvisation	MUS	A230	(1)
Recording Techniques	MUS	A261	(2)
Music as a Business	MUS	A262	(2)
Applied Music	MUS	A290	(2-4)
Total:			(29-33)

Suggested electives:

Popular Vocal Techniques	MUS	A144	(2)
Voice 1	MUS	A145	(1)
Theory and Ear Training 2	MUS	A185	(5)
Sophomore Recital	MUS	A240	(.5)
Classical Guitar 3	MUS	A248	(2)
Studio Guitar 3	MUS	A271	(1.5)
Theory and Ear Training 3	MUS	A280	(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 and nationally referred to as Electroneurodiagnostic Technology – END) is an allied health specialty for diagnosing patients with neurological disorders such as epilepsy, stroke, coma, multiple sclerosis, and many others. A competent Neurodiagnostic technologist has knowledge of the nervous system and knows how to properly operate many types of sophisticated instruments. Neurodiagnostic technologists are employed in hospitals, clinics, physicians' offices, university medical centers and research centers.

Orange Coast College's Neurodiagnostic Technologist 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 Studies (NCS), Long-term Monitoring (LTM) for Epilepsy, Intraoperative Neurophysiological Monitoring (IONM), Transcranial Doppler (TCD) Studies, and more.

Competencies in the three learning domains are measured by various means in the course and clinical work and overall learning outcomes are documented by the graduate competencies. As a CAAHEP-accredited END Program, this program meets the eligibility requirements to take the EEG and EP exams of the American Board of Registration in Electroencephalographic and Evoked Potential Technologists (ABRET).

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 begins this program in the fall semester of even years.

Program Outcome

The goal of the program is to meet the needs of the local health care community by preparing students for entry level employment as a professional and competent Neurodiagnostic technologist.

Program Admission:

1. Allied Health 010 course – application and orientation
2. The student must complete Associate of Science degree Mathematics and General Education requirements and the program prerequisites prior to acceptance to the program.

Program prerequisites:

Health Occupations	ALH	A010	(.5)
Anatomy-Physiology	BIOL	A221	(4)
Subtotal:			(4.5)

Recommended preparation:

Intro to Computer Appl	CIS	A100	(3)
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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 SPECIALIZATION

Required Courses

Course			Units
Intro to Intraoperative Monitoring	NDT	A296	(2)
Microcomputer Applications	NDT	A297	(2)
Polysomnography Basics	PSG	A100	(1)

Subtotal: (5)

Select one (1) course from the following:

Intro Transcranial Doppler	NDT	A284	(1)
Intro Nerve Conduction Velocity	NDT	A285	(1)
Statistics for Behavioral Sci	PSYC	A160	(3)

(1-3)

Total: (6-8)

NUTRITION RELATED CAREERS

--See *DIETETICS, NUTRITION CAREERS*

Required Courses

Course			Units
Fall			
Medical Terminology	ALH	A111	(3)
Patient Care	ALH	A115	(2.5)
Applied Pharmacology	ALH	A130	(2)
Basic EEG	NDT	A110	(4)
Intersession			
Neurodiagnostic Lab Practice	NDT	A200	(.5)
Spring			
Human Diseases	ALH	A120	(2)
Advanced EEG	NDT	A115	(4)
Clinical Experience 1	NDT	A116	(3.5)
Neuro Anatomy & Physiology	NDT	A190	(3)
EEG Record Review-Normal	NDT	A191	(1)
EEG Record Review-Abnormal	NDT	A287	(1.5)
Summer			
Clinical Experience 2	NDT	A117	(3)
Fall			
Neurologic Disorders	NDT	A280	(3)
Intro Transcranial Doppler	NDT	A284	(1)
Intro Nerve Conduction Velocity	NDT	A285	(1)
Clinical Experience 3	NDT	A286	(3.5)
Evoked Potentials	NDT	A288	(4)
Intersession			
Neurodiagnostic Lab Practice	NDT	A200	(.5)
Spring			
Clinical Experience 4	NDT	A289	(2)
Intro to Intraoperative Monitoring	NDT	A296	(2)
Microcomputer Applications	NDT	A297	(2)
Clinical Internship	NDT	A298	(1)
Polysomnography Basics	PSG	A100	(1)
			(51)
Total:			(55.5)

Students are required to earn a grade of "C" or better in all program courses and prerequisites.

Suggested electives:

Technical Electronics	ELEC	A140	(3)
Technical Writing & Critical Reasoning	ENGL	A105	(3)
Child Development	HMDV	A180	(3)
Specialty Procedures	MA	A289	(1)
Ethics	PHIL/RLST	A120	(3)
Intro to Physics	PHYS	A110	(3)
Statistics for Behavioral Sci	PSYC	A160	(3)
Elementary Spanish	SPAN	A180	(5)
Interpersonal Communication	SPCM	A100	(3)

This program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

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NUTRITION CAREERS

Students who graduate from our programs are prepared for entry level positions in nutrition. This industry is experiencing rapid growth and has a growing demand for trained nutrition personnel. The employment outlook is excellent. Students interested in this field have three options.

- Community Nutrition Assistant. This certificate prepares student to work in community agencies such as WIC (Women, Infants, and Children) programs under the direction of a Registered Dietitian.
- Nutrition Education. Students who graduate from this program are prepared for employment in weight control clinics, schools, community agencies concerned with nutrition, manufacturers and distributors of nutrition related products.
- Nutrition and Fitness Education. Students who graduate from this program are prepared for entry-level positions in the booming health and fitness industry, encompassing weight control clinics, sports medicine clinics, health clubs and gyms, personal training facilities, corporate fitness and wellness centers, fitness and nutrition programs in schools, and community agencies concerned with health fitness and nutrition education.

Completion of the Core Curriculum is required for all Nutrition Careers listed below. Students are required to earn a grade of "C" or better in all courses to receive a certificate.

CORE CURRICULUM

Required Courses

Course			Units
Sanitation & Safety	FSM	A160	(3)
Careers in Dietetics/Food Sci	FN/NC	A100	(1)
Applied Nutrition	FN	A171	(2)
Fitness Programs I	PE	A107	(1-3)
Total:			(7-9)

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.

Program Outcome

Graduates will be competent entry-level Nutrition Assistants meeting the employment needs of the community.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Core Curriculum			(7-9)
Intro to Nutrition Concepts	FN	A140	(2)
Life Cycle Nutrition: Mother/Infant	FN	A144	(1)
Life Cycle Nutrition: Children	FN	A145	(1)
Cultural Foods	FN	A185	(2)
Intermediate Nutrition Care	NC	A280	(2)
Supervised Practice	NC	A281	(3)
Subtotal:			(18-20)

Select one (1) from the following:

Cooking Essentials	FN	A120	(1)
Vegetarian Cuisine	FN	A125	(1)
Cooking Lite	FN	A173	(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.

Program Outcome

Graduates will be competent entry-level Nutrition Education Assistants meeting the employment needs of the community.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Core Curriculum			(7-9)
Anatomy & Physiology	BIOL	A221	(4)
Nutrition	FN	A170	(3)
Principles of Food	FN	A180	(3)
Cultural Foods	FN	A185	(2)
Intro to Med Nutrition Therapy	NC	A180	(3)
Intermediate Nutrition Care	NC	A280	(2)
Supervised Practice 1	NC	A281	(3)

Subtotal: (27-29)

Select one (1) from the following:

Cooking Essentials	FN	A120	(1)
Vegetarian Cuisine	FN	A125	(1)
Cooking Lite	FN	A173	(1)

Total: (28-30)

Suggested electives:

Intro Display & Visual Presentation	DVP	A180	(3)
Nutrition/Fitness/Performance	FN	A136	(3)
Current Issues Food/Nutr/Food Sci	FN	A199	(.5-1)
Child Development	HMDV	A180	(3)
Professional Selling	MKTG	A110	(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.

NUTRITION AND FITNESS EDUCATION

Students who graduate from this program are prepared for entry-level positions in the booming health and fitness industry, encompassing weight control clinics, sports medicine clinics, health clubs and gyms, corporate fitness and wellness centers, fitness and nutrition programs in schools, and community agencies concerned with health, fitness and nutrition education.

Students in this program will be able to advise clients on normal nutrition, weight control and improved performance by working with other nutrition professionals. The fitness industry is experiencing rapid growth and has a growing demand for trained fitness and nutrition educators. The employment outlook is excellent.

Program Outcome

Graduates will be competent entry-level Nutrition and Fitness professionals meeting the employment needs of the community.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses		Units
Core Curriculum			(7-9)
Anatomy & Physiology	BIOL	A221	(4)
Nutrition/Fitness and Performance	FN	A136	(3)
Life Cycle Nutrition: Children	FN	A145	(1)
Cultural Foods	FN	A185	(2)
Intro to Med Nutrition Therapy	NC	A180	(3)
Intermediate Nutrition Care	NC	A280	(2)
Supervised Practice 1	NC	A281	(3)
Fitness and Health	PE	A134	(3)
Fitness and Exercise Testing	PE	A284	(3)
Total:			(31-33)

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.

RECOMMENDATION

Combine the Nutrition and Fitness Assistant Certificate with the Fitness Specialist 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.

Program Mission Statement

Upon completion of the Ornamental Horticulture Program students will have the knowledge, skills and experience to work with plant material in multiple applications and multiple fields in the Landscaping and Nursery industries. Students will be qualified for careers in Landscape Design, Landscape Contracting, Landscape Maintenance, Arboriculture, Nursery practices, and Irrigation and Water Management.

Program Outcomes

Upon completion of this certificate, students will be able to:

1. Use knowledge of various plant materials to better design and maintain an outdoor garden or landscape.
2. Describe man's relationship with plants for food and environmental enhancement.
3. Describe current sustainability issues in Southern California and how good horticultural practices will improve long term sustainability.
4. Use knowledge of a particular chosen plant, greenhouse systems and propagation practices to successfully produce a healthy crop by a target date.
5. Use knowledge of site conditions, drafting skills, client needs, and various plant and building materials to solve a design problem .

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CERTIFICATE OF ACHIEVEMENT

Required Courses

A. Preliminary courses which should be taken in the first year:

Course			Units
	Fall		
Botany* (Or)	BIOL	A183	(3)
Botany for Gardeners	OH	A105	(3)
Orientation to Horticulture	OH	A090	(.5)
Knowing Your Soils	OH	A109	(3)
Ornamental Trees	OH	A181	(3)
	Spring		
Ornamental Shrubs	OH	A182	(3)
		Subtotal:	(12.5)

Nursery Practices and Mgmt	OH	A184	(3)
Plant Diseases	OH	A185	(1.5)
Interior Plantscaping	OH	A187	(2)
Intro to Landscape Design	OH	A285	(3)

	Spring		
Landscape Maintenance	OH	A150	(3)
Plant Propagation	OH	A183	(3)
Pests of Ornamentals	OH	A186	(1.5)
Turf Culture Mgmt	OH	A188	(3)
Weeds & Their Control	OH	A189	(1.5)
California Friendly Landscapes	OH	A190	(2)
Cacti and Succulents	OH	A191	(1.5)
Landscape Design Elements	OH	A286	(2)
Planting Design	OH	A287	(2)
Sprinkler Irrigation Sys Design	OH	A288	(1)
Install Residential Irrig Sys	OH	A289	(1)
Business elective			(3)

*Transfer students should also take Biology A183L.

B. Suggested second year sequence:

Select twelve (12) units from the following:

	Fall		
Landscape Drafting	OH	A111	(1)
Intro to Tree Care	OH	A151	(2)
Pest Control Applicators & Gardeners P.C.D. Cert	OH	A170	(1)

(12)

Total: (24.5)

ASSOCIATE DEGREE

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

PHOTOGRAPHY—STILL

PHOTOGRAPHY DIGITAL TECHNICIAN

This program offers training in areas such as digital photography, digital workflow, large format digital capture and studio photography techniques. It is intended to prepare students for digital tech and photo assisting jobs in the professional photography community.

Program Outcomes

Students will be able to demonstrate competence in the digital skills of photography and display skills in professional practices.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Intro to Professional Photography	PHOT	A180	(4)
Commercial Photography	PHOT	A188	(5)
Professional Digital Capture	PHOT	A205	(3)
Professional Digital Workflow & Color Management	PHOT	A225	(3)
Intro to Professional Color	PHOT	A280	(3)

Total (18)

Recommended:

Imaging with Photoshop I	PHOT	A125	(3)
Business Practices for Photographers	PHOT	A241	(3)



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 and/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, color management, digital work flow, 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 digital classes for professional photographers who wish to learn new skills and/or for those who are interested in careers as photographic laboratory technicians.

Program Outcomes

Upon completion of this certificate students will be able to:

1. Demonstrate competence in the technical skills of photography.
2. Demonstrate the ability to evaluate photographic aesthetic strategies.
3. Create photographs that illustrate a critical understanding of visual language.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
First Semester			
Color & Design 2-D	ART	A110	(3)
Basic Photography	PHOT	A120	(3)
History & Aesthetics of Photography	PHOT	A130	(3)

Second Semester

History/Apprec Western Art (Or)	ART	A101	(3)
Contemporary Art History	ART	A102	(3)
Imaging with Photoshop I	PHOT	A125	(3)
Intro to Professional Photography	PHOT	A180	(4)
Any "A100" level photography course			(2) minimum

Third Semester

Commercial Photography	PHOT	A188	(5)
Intro to Prof Color Photography	PHOT	A280	(3)
Professional Digital Capture	PHOT	A205	(3)

Fourth Semester

Art Photography	PHOT	A283	(4)
Select six (6) units from the following:			(6)
Any "A200" level photography courses			(6)

Total: (42)

Recommended:

Fundamentals of Composition	ENGL	A100	(3)
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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*

POLYSOMNOGRAPHIC TECHNOLOGY

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. The PSG program offers instruction which includes lectures, laboratory experience on campus, clinical experience at accredited sleep centers and physician lectures.

Competencies in the three learning domains are measured by various means in the course and clinical work and overall learning outcomes are documented by the graduate competencies. As a CAAHEP-accredited PSG Program, this course of instruction meets the eligibility requirements to take the PSG exam of the Board of Registration in Polysomnographic Technologists (BRPT).

Graduates from OCC's Neurodiagnostic Technology or Respiratory Care programs may complete the PSG degree program with one additional year of study. Many courses from these programs are directly related to Polysomnography. Students without these backgrounds can complete the AS degree in Polysomnographic Technology within two years. This program will accept new students to begin in the fall semester of odd years.

Program Outcome

The goal of the program is to meet the needs of the local health care community by preparing students for entry level employment as a professional and competent Polysomnographic Technologist.

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	ALH	A010	(.5)
Anatomy-Physiology	BIOL	A221	(4)

Subtotal: **(4.5)**

Recommended preparation:

Technical Math*	TECH	A040	(3)
Intro to Computer Appl	CIS	A100	(3)

*(or Math A010 or higher or placement at Math A030 level)

Required Courses

Course			Units
	Fall		
Medical Terminology	ALH	A111	(3)
Applied Pharmacology	ALH	A130	(2)
Basic EEG	NDT	A110	(4)
Resp Anatomy & Physiology	RSPC	A185	(3)
	Spring		
Human Diseases	ALH	A120	(2)
Child Development	HMDV	A180	(3)
Advanced EEG	NDT	A115	(4)
Intro to Neuroanatomy & Phys	NDT	A190	(3)
	Fall		
Patient Care	ALH	A115	(2.5)
Intro to Polysomnography	PSG	A150	(3)
Cardiac Rhythm Analysis	PSG	A155	(.5)
Polysomnography Testing	PSG	A160	(2)
Polysomnography Clinical 1	PSG	A165	(1)
Polysomnographic Practice	PSG	A170	(.5)
Pulmonary Pathology	RSPC	A265	(3)
	Interession		
Polysomnography Clinical 2	PSG	A175	(1)
	Spring		
Polysomnography Record Review	PSG	A250	(2.5)
Advanced Polysomnography	PSG	A260	(2)
Polysomnography Clinical 3	PSG	A265	(2)
Physician Lecture Series	PSG	A270	(1)
Polysomnography Internship	PSG	A285	(2)

(47)

Total: **(51.5)**

Suggested electives:

Technical Writing & Critical Reasoning	ENGL	A105	(3)
Ethics	PHIL/RLST	A120	(3)
Intro to Physics	PHYS	A110	(3)
Intro to Abnormal Psychology	PSYC	A158	(3)
Statistics for Behavioral Sci	PSYC	A160	(3)
Interpersonal Communication	SPCM	A100	(3)

NEURODIAGNOSTIC TECHNOLOGY CROSS-TRAINING OPTION

This option is recommended for Neurodiagnostic Technology graduates who would like to cross-train as Polysomnographic Technologists.

ASSOCIATE IN SCIENCE DEGREE IN POLYSOMNOGRAPHIC TECHNOLOGY

Program option prerequisite:
Neurodiagnostic Technology Associate in Science Degree

	Subtotal:	(55.5)
Required Courses		
Course		Units
Fall		
Intro to Polysomnography	PSG A150	(3)
Cardiac Rhythm Analysis	PSG A155	(.5)
Polysomnography Testing 1	PSG A160	(2)
Polysomnography Clinical 1	PSG A165	(1)
Polysomnographic Practice	PSG A170	(.5)
Resp Anatomy & Physiology	RSPC A185	(3)
Pulmonary Pathology	RSPC A265	(3)
Intersession		
Polysomnography Clinical 2	PSG A175	(1)
Spring		
Child Development	HMDV A180	(3)
Polysomnography Record Review	PSG A250	(2.5)
Polysomnography Testing 2	PSG A260	(2)
Polysomnography Clinical 3	PSG A265	(2)
Physician Lecture Series	PSG A270	(1)
Polysomnography Internship	PSG A285	(2)
		(26)
Total:		(81.5)

RESPIRATORY CARE CROSS-TRAINING OPTION

This option is recommended for Respiratory Care graduates who would like to cross-train as Polysomnographic Technologists.

ASSOCIATE IN SCIENCE DEGREE IN POLYSOMNOGRAPHIC TECHNOLOGY

Program option prerequisite:
Respiratory Care Associate in Science Degree

	Subtotal:	(62.5)
Required Courses		
Course		Units
Fall		
Basic EEG	NDT A110	(4)
Intro to Polysomnography	PSG A150	(3)
Polysomnography Testing 1	PSG A160	(2)
Polysomnography Clinical 1	PSG A165	(1)
Polysomnographic Practice	PSG A170	(.5)
Intersession		
Polysomnography Clinical 2	PSG A175	(1)
Spring		
Child Development	HMDV A180	(3)
Intro to Neuroanatomy & Phys	NDT A190	(3)
Polysomnography Record Review	PSG A250	(2.5)
Polysomnography Testing 2	PSG A260	(2)
Polysomnography Clinical 3	PSG A265	(2)
Physician Lecture Series	PSG A270	(1)
Polysomnography Internship	PSG A285	(2)
		(27)
Total:		(89.5)

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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 Public Health 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 A010. 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 A010 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 A010 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 an 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.

Program Outcome

Graduate students who are clinically competent and meet the needs of the imaging community. Provide ethical patient care, comfort, and safety while demonstrating the communication and independent critical thinking skills necessary to effectively participate in the health care environment. Practice the concept of life-long learning through continued education and participation in professional Radiologic Technology organizations.



Program Admission:

1. Allied Health A010 course – application and orientation
2. The student must complete Associate of Science degree General Education requirements as listed in the catalog and the program prerequisites prior to acceptance to the program.

Program prerequisite:

Health Occupations	ALH	A010	(.5)
Medical Terminology	ALH	A111	(3)
Anatomy-Physiology	BIOL	A221	(4)

Subtotal: (7.5)

Students are required to earn a grade of “C” or better in all courses.

B. Required courses for this major:

Course	Units		
FIRST YEAR			
Fall			
Patient Care	ALH	A115	(2.5)
Rad Physics & Protection	RADT	A110	(3)
Beg Radiologic Practice	RADT	A165	(1.5)
Rad Positioning/Critique 1	RADT	A170	(3)
Clinical Lab 1	RADT	A171	(1)
Radiographic Imaging	RADT	A180	(3)
Intersession			
Clinical Lab 2	RADT	A172	(1)
Spring			
Human Diseases	ALH	A120	(2)
Rad Positioning/Critique 2	RADT	A175	(3)
Clinical Lab 3	RADT	A176	(5.5)
Radiographic Pathology	RADT	A185	(1)
Summer			
Clinical Lab 4	RADT	A177	(3)
SECOND YEAR			
Fall			
Digital Imaging & Computer Applications	RADT	A265	(2)
Rad Positioning/Critique 3	RADT	A270	(3)
Clinical Lab 5	RADT	A271	(7.5)
Intersession			
Clinical Lab 6	RADT	A276	(1)
Spring			
Radiologic Technology	RADT	A216	(2)
Rad Positioning/Critique 4	RADT	A275	(3)
ARRT Board Prep	RADT	A285	(1)
Applied Physics & Fluoroscopy	RADT	A290	(2.5)
Clinical Lab 7	RADT	A277	(5.5)
			(57)
Total:			(64.5)

Students are required to earn a grade of “C” or better in all prerequisite and required courses.

Suggested elective:

Ethics	PHIL/RLST	A120	(3)
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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.

Program Outcomes

Upon successful completion of the Certificate of Achievement in Real Estate, graduates will be able to:

Function effectively in an entry-level real estate position using the skills, principles, and tools they have acquired.

Communicate effectively in personal organizational and real estate environments.

Apply the real estate principles they have learned to effectively facilitate real estate transactions in a variety of settings.

Be prepared to sit for the California Real Estate Broker’s Exam.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course				Units
Accounting for Small Business (3)	ACCT	A100		
(Or)				(3-4)
Financial Accounting (4)	ACCT	A101		
Business Law	BUS	A110		(3)
Macroeconomics	ECON	A180		
(Or)				(3)
Microeconomics	ECON	A185		
Real Estate Principles	RE	A110		(3)
Legal Aspects of Real Estate	RE	A120		(3)
Real Estate Practice	RE	A130		(3)
Real Estate Appraisal	RE	A140		(3)
Real Estate Finance	RE	A150		(3)
			Total:	(24-25)

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.

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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 A110 and A130 are required courses, plus one other real estate elective. All three are required to take the state exam. Check with the California Department of Real Estate for any additional requirements and forms.

Program Outcomes

Upon successful completion of the Certificate of Specialization in Real Estate, graduates will be able to:

Function effectively in an entry-level real estate position using the skills, principles, and tools they have acquired.

Apply the real estate principles they have learned to effectively facilitate real estate transactions in a variety of settings.

CERTIFICATE OF SPECIALIZATION

Course	Required Courses		Units
Real Estate Principles	RE	A110	(3)
Real Estate Practice	RE	A130	(3)
Legal Aspects of Real Estate (Or)	RE	A120	
Real Estate Appraisal (Or)	RE	A140	(3)
Real Estate Finance	RE	A150	
	Total:		(9)
Suggested electives:			
Accounting for Small Business	ACCT	A100	(3)
Business Law	BUS	A110	(3)
Intro to Computer Appl	CIS	A100	(3)
Macroeconomics	ECON	A180	(3)
Microeconomics	ECON	A185	(3)

RELIGIOUS STUDIES

The Religious Studies program at Orange Coast College is designed to give students broad introduction to the academic study of religion. Students working towards an Associate in Arts degree will find Religious Studies courses can be used for some General Education requirements. Students transferring to Religious Studies programs at four-year colleges will have a strong background for upper division work in the field.

Program Outcome

After completion of the Certificate Program students will be able to explain various dimensions of religion, describe a methodology for studying religion, and be able to describe and compare some beliefs and practices of two or more religions.

CERTIFICATE OF SPECIALIZATION

Course	Required Courses		Units
Intro to Religious Studies	RLST	A100	(3)
World Religion	PHIL/RLST	A110	(3)
Philosophy of Religion	PHIL/RLST	A115	(3)
	Subtotal:		(9)
Select six (6) units from the following:			
History of Christianity	RLST	A128	(3)
Life & Times of Jesus	RLST	A130	(3)
History of Judaism	RLST	A140	(3)
Mysticism and Meditation	RLST	A145	(3)
Eastern Thought	RLST	A150	(3)
Islam	RLST	A160	(3)
	Total:		(15)



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.

Program Outcome

The outcome of the program is to prepare students as competent Respiratory Care Practitioners for employment in the field as respiratory care professionals providing cognitive, psychomotor, and affective qualities to meet community needs.

Employment possibilities include:

- Respiratory Therapist
- Respiratory Therapy Specialist
- Respiratory Care Practitioner

Program Admission:

1. Allied Health A010 course – application and orientation.
2. The student must complete Associate of Science Degree requirements and the program prerequisites prior to acceptance to the program.

All courses must be completed with grade of “C” or better.

Prerequisites:

Health Occupations	ALH	A010	(.5)
Anatomy-Physiology	BIOL	A221	(4)

Required Courses

Course			Units
Fall			
Medical Terminology	ALH	A111	(3)
Patient Care	ALH	A115	(2.5)
Basic Microbiology	BIOL	A114	(2)
Introductory Chemistry	CHEM	A110	(5)
Resp Anatomy & Physiology	RSPC	A185	(3)
Spring			
Human Diseases	ALH	A120	(2)
Applied Pharmacology	ALH	A130	(2)
Basic Resp Care Equip	RSPC	A190	(3)
Clinical Lab 1	RSPC	A191	(1.5)
Respiratory Pharmacology	RSPC	A195	(1)
Home Care & Rehabilitation	RSPC	A255	(1)
Interpersonal Communication (Or)	SPCM	A100	(3)
Public Speaking	SPCM	A110	
Summer			
Clinical Lab 2	RSPC	A192	(1)
Fall			
Arterial Blood Gases, Theory & Prac	RSPC	A260	(2.5)
Pulmonary Pathology	RSPC	A265	(3)
Ventilators & Resp Mgmt	RSPC	A270	(2)
Resp Care Procedures	RSPC	A275	(3)
Clinical Lab 3	RSPC	A276	(4)
Physician Series 1	RSPC	A279	(.5)
Intersession			
Pulmonary Case Assessment	RSPC	A278	(1)
Spring			
Polysomnography Basics	PSG	A100	(1)
Critical Care Monitoring	RSPC	A280	(1)
Pulmonary Func Testing	RSPC	A285	(2)
Clinical Lab 4	RSPC	A286	(3)
Clinical Internship	RSPC	A287	(2)
Neonatal Intensive Care	RSPC	A290	(2)
Respiratory Care Board Review	RSPC	A296	(1)
Total:			(62.5)

All prerequisite and required courses must be completed with grade of “C” or better.

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.

Program Outcome

The goal of the School Health Assistant program is to meet the needs of the local healthcare and school community by preparing student for entry level employment as professional and competent School Health Assistants.

SKILL CERTIFICATE

Required Courses

Course			Units
Disaster Preparedness	EC	A262	(.5)
Child Abuse ID & Referral	EC	A263	(.5)
Emergency Medical Care-Children	EMT	A145	(1)
School Health Assistant Admin	SHA	A100	(3)
Total:			(5)

Suggested electives:

Health Occupations	ALH	A010	(.5)
Medical Terminology	ALH	A111	(3)
Human Diseases	ALH	A120	(2)
Cross-Cultural Perspectives	EC	A126	(3)
Guidance for Young Children	EC	A157	(3)
Life Cycle Nutrition: Children	FN	A145	(1)
Child Development	HMDV	A180	(3)
Child-Family-Community	HMDV	A190	(3)
Interpersonal Communication	SPCM	A100	(3)

SPA MANAGEMENT

—See *Hospitality, Travel & Tourism*

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.

Program Outcome

Graduates of the program will be competent Speech-Language Pathology Assistants meeting the employment needs of the community and participating in professional growth activities.

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	ALH	A010	(.5)
Child Development	HMDV	A180	(3)

Subtotal: (3.5)

Required Courses

Course			Units
Fall			
Patient Care	ALH	A115	(2.5)
Medical Terminology	ALH	A111	(3)
Intro to Linguistics	ANTH	A190	(3)
Intro Speech Pathology Asst	SLPA	A100	(2)
Speech/Language/Hearing Dev	SLPA	A115	(3)
Speech-Language Admin Proced	SLPA	A120	(2)
Spring			
Prin/Prac of Tchng Yng Chldrn	EC	A155	(3)
Early Childhood Laboratory	EC	A156	(2)
Observe/Record Behavior	EC	A165	(2)
Intro to Commun Disorders	SLPA	A140	(3)
Intro to Phonetics	SLPA	A150	(3)
Clinical Experience 1	SLPA	A160	(.5)

Fall			
Anatomy-Physiology	BIOL	A221	(4)
Screen/Therapeutic Process	SLPA	A180	(3)
Clinical Experience 2	SLPA	A190	(2)
Spring			
Human Diseases	ALH	A120	(2)
The Exceptional Child	HMDV	A210	(3)
Adult/Geriatric Disorders	SLPA	A200	(2)
Clinical Experience 3	SLPA	A250	(4)
		Total:	(52.5)

Suggested electives:

Ethics	PHIL/RLST	A120	(3)
Any American Sign Language course (Golden West or Coastline Community Colleges)			

TECHNICAL WRITING

Program Outcomes

Orange Coast College's Technical Communication Certificate of Specialization prepares students for entry level technical communication positions by exposing them to the writing and editing skills, technical and business formats, software applications, and critical thinking techniques for assessing audiences and analyzing data.

After completing this certificate program students will be able to:

- Analyze a project's audience and purpose using technical communication principles
- Produce technical documents of professional quality
- Produce technical documents in several media appropriate for the communication situation

CERTIFICATE OF SPECIALIZATION

Required Courses			Units
Course			
Technical Report Writing	ENGL	A105	
(Or)			(3)
Critical Reasoning & Writing for Science & Technology	ENGL	A109	
Business Communication	BUS	A139	(3)
Professional Communication	BUS	A239	(3)
Intro to Web Pg Design	CIS	A123	(2)
		Subtotal:	(11)

Technical Communication Electives

Select six (6) units from the following:

Medical Terminology	ALH	A111	(3)
Architectural Drawing and Design Visual	ARCH	A105	(2)
Architectural Drafting and Construction Documents	ARCH	A180	(4)
JavaScript 2	CIS	A223	(2)
Digital Video for Business:			
Adobe Premier Pro	CIS	A232	(3)
Graphic Design	DMAD	A182	(4)
Intro to Computer Graphics	DMAD	A181	(3)
Basic Computer Aided Design/Drafting	DRAF	A150	(4)
Basic Drafting Practices	DRAF	A110	(4)
Engineering Drafting/Design	DRAF	A115	(4)
Robotics 1 Mechanics and Design	ELEC	A101	(4)
Engineering Graphics	ENGR	A180	(3)
Home Video Marketing Distribution	FILM	A112	(3)
Intro to Geographic Information Systems	GEOG	A190	(2)
Editing and Production Skills	JOUR	A111	(1)
Direct Mail Marketing	MKTG	A142	(1.5)

Subtotal: (6)

Total: (17)

TRAVEL AND TOURISM

—See *Hospitality, Travel & Tourism*

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.

Program Outcome

Students successfully completing the Orange Coast College welding program will have the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment. Working craftsmen will be able to improve or develop additional proficiencies required for professional growth or advancement in their current employment. All qualification training and tests are prescribed and follow the guide of the American National Standard Institute (ANSI) codes requirements.

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	Spring	
Technical Report Writing (Or)	ENGL A105		(3)
Freshman Composition	ENGL A100		
Arc & Oxy Welding (3) (Or)	WELD A100		(3-4)
Arc & Oxy Welding (4)	WELD A101		
Math & Fabrication Layout For Welders	WELD A120		(3)
Advanced Welding (3) (Or)	WELD A200		(3-4)
Advanced Welding (4)	WELD A201		
Welding Metallurgy	WELD A230		(3)
	Fall		
Basic Drafting Practices	DRAF A110		(4)
Welding Inspec & Test	WELD A210		(4)

Spring

Blueprint Reading	WELD	A180	(3)
Welding Specs and Codes	WELD	A220	(2)
Total:			(28-30)

Suggested electives:

Arc-Oxy Weld (Open Lab)	WELD	A115	(1-2)
GTAW (Gas Tungsten Arc Weld)	WELD	A130	(1.5)
Arc & Oxy Weld Lab	WELD	A215	(1-2)
Pipe Welding	WELD	A250	(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 Specialization 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	A100	(3)
Weld Testing Basic	WELD	A105	(.5)
Total:			(3.5)

This Certificate of Specialization 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	A100	(3)
Weld Testing Intermediate	WELD	A106	(.5)
Arc & Oxy Weld Practice (1-2)	WELD	A115	(1) minimum
Total:			(4.5)

This Certificate of Specialization certifies mastery of intermediate Shielded Metal Arc Welding (SMAW) Levels V or VI.

Advanced Welding (SMAW)

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Arc & Oxy Welding	WELD	A100	(3)
Weld Testing Advanced	WELD	A107	(.5)
Arc & Oxy Welding Pract (1-2)	WELD	A115	
(Or)			(3) minimum
Arc & Oxy Weld Lab (1-2)	WELD	A215	
Advanced Welding	WELD	A200	(3)
Total:			(9.5)

This Certificate of Specialization certifies mastery of first level advanced welding in Shielded Metal Arc Welding (SMAW) Levels VII, VIII and IX.

Advanced I Welding (FCAW)

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Arc & Oxy Welding	WELD	A100	(3)
Weld Testing Advanced	WELD	A108	(.5)
Arc & Oxy Welding Pract (1-2)	WELD	A115	
(Or)			(3) minimum
Arc & Oxy Weld Lab (1-2)	WELD	A215	
Advanced Welding	WELD	A200	(3)
Total:			(9.5)

This Certificate of Specialization certifies mastery of first level advanced welding in Flux-Cored Arc Welding (FCAW) Levels I, II, & or IV.

Advanced II Welding (FCAW)

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Arc & Oxy Welding	WELD	A100	(3)
Weld Testing FCAW (.5)	WELD	A109	(.5)
(Or)			(.5)
Weld Testing FCAW	WELD	A110	
Arc & Oxy Welding Pract (1-2)	WELD	A115	
(Or)			(5) minimum
Arc & Oxy Weld Lab (1-2)	WELD	A215	
Advanced Welding	WELD	A200	(3)
Total:			(11.5)

This Certificate of Specialization 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

Course			Units
Arc & Oxy Welding	WELD	A100	(3)
Weld Testing GTAW	WELD	A104	(.5)
Gas Tungsten Arc Welding	WELD	A130	(1.5)
Total:			(5)

This Certificate of Specialization certifies mastery of skills necessary for Gas Tungsten Arc Welding (GTAW) Level I.

Gas Metal Arc Welding (GMAW)

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Arc & Oxy Welding	WELD	A100	(3)
Weld Testing GMAW (.5)	WELD	A102	
(Or)			(.5)
Weld Testing GMAW (.5)	WELD	A103	
Adv Arc & Oxy Welding	WELD	A200	(3)
Total:			(6.5)

This Certificate of Specialization certifies mastery of skills necessary for Gas Metal Arc Welding (GMAW) Levels I, II, III, IV or V.

Pipe

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Arc & Oxy Welding	WELD	A100	(3)
Weld Testing Pipe	WELD	A111	(.5)
Adv Arc & Oxy Welding	WELD	A200	(3)
Pipe Welding and Adv GTAW	WELD	A250	(3)
Total:			(9.5)

This Certificate of Specialization certifies mastery of skills necessary or Pipe Levels I and/or II.



COURSE DESCRIPTIONS

Transfer Courses

All courses numbered A100 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.

Identification of courses that have been accepted into the California Articulation Number (CAN) system appears after the course title.

ACCOUNTING

Accounting A100—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Accounting A101—Financial Accounting (4)

Fundamentals of financial accounting relating to corporations. Application of widely used accounting theory and practice for both service and merchandise enterprises. Preparation and analysis of financial statements. This course may also be offered online. Five hours. **Transfer Credit: CSU; UC.**

Accounting A102—Managerial Accounting (4)

Prerequisite: Accounting A101.

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 decision-making tools. This course may also be offered online. Five hours. **Transfer Credit: CSU; UC.**

Accounting A110—Accounting Information Systems 1 (3)

Prerequisite: Accounting A100 or A101.

Introductory course to accounting information systems which applies accounting principles using general ledger and spreadsheet software. 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 pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Accounting A111—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 and tax return preparation. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Accounting A112—Accounting with QuickBooks (2)

Prerequisite: Accounting A100 or A101.

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. Covers creation and operation of a detailed accounting system for new and existing businesses. May be taken for grades or on a pass-no pass basis. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

Accounting A114—Volunteer Income Tax Assistance (VITA) (1)

Advisory: Accounting A111.

This hands on course provides training and an experiential service learning opportunity in the preparation of federal and state individual income tax returns. After attending training and review classes and passing the IRS and state individual income tax exams, student volunteers will provide free tax assistance to qualifying community residents. Offered on a pass-no pass basis only. Five hours. **Transfer Credit: CSU.**

Accounting A115—Medical Bookkeeping (4)

Terminology, techniques, application, and 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 A115. Students completing Accounting A115 may not receive credit for Medical Assisting A115. Four hours. **Transfer Credit: CSU.**

Accounting A117—Mas 90/Mas 200 (2)

Prerequisite: Accounting A100 or A101.

A comprehensive computerized accounting system for large businesses. Covers creation and operation of a detailed accounting system for new and existing businesses. Topics include a review of basic accounting concepts, the setup of company books, and preparation of business reports. This course may also be offered online. May be taken for grades or on a pass-no pass basis. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Accounting A119—Payroll (3)

Prerequisite: Accounting A100 or A101.

Creation of a payroll cycle, recording of payroll information, payroll transmittal and verification with Output reports that reflect both Federal and State of California's laws and policies. Prepares students for FPC Designation Exam. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Accounting A121—Full Charge Bookkeeper (1)

Prerequisite: Accounting A100 or A101.

Advisory: Accounting A110 and A119.

Course designed as a review of skills for Full Charge Bookkeeper employment opportunities and preparation for national certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. One hour. **Transfer Credit: CSU.**

Accounting A199—Current Topics in Accounting (1-4)

Course covers topics currently receiving attention in the Accounting industry. Units vary according to the topic selected, semester offered, and the number of meetings scheduled. This course may also be offered online. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to four hours lecture, 0-three hours non-lecture. **Transfer Credit: CSU.**

Accounting A210—Cost Accounting (3)

Prerequisite: Accounting A102.

Covers cost accounting concepts and practices. 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 and cost accounting on government contracts are also considered. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Accounting A211—Intermediate Accounting (4)

Prerequisite: Accounting A102.

Financial accounting theory and practice. Reviews and builds upon concepts learned in earlier financial 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.**

Accounting A218—Auditing (3)

Prerequisite: Accounting A101, A102, A211.

Examines the use of financial statement audits and details the audit process. Topics include professional responsibilities of auditors, audit design, sampling approaches, substantive testing, testing controls, and audit report formulation and communication. **Transfer Credit: CSU.**

AIRLINE AND TRAVEL CAREERS

Airline and Travel Careers A112—Flight Attendant Qualifications and Opportunities (1.5)

Survey of flight attendant and in-flight service team qualifications and opportunities for employment, including base stations, responsibilities, salary schedule, and benefits. Three hours. **Transfer Credit: CSU.**

Airline and Travel Careers A116—Airline Operations and Terminology (1.5)

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. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Airline and Travel Careers A119—Travel Safety Inflight and Ground (1.5)

Travel safety and security to include ground and in-flight equipment, passenger psychology, airport security, federal regulations, safety precautions while traveling, anti-terrorism and hijacking discussion. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Airline and Travel Careers A120—Airline Service Excellence (1.5)

Examines the priority of customer service and satisfaction in the airline industry. Students will investigate how airlines differentiate service to be competitive and will use their findings to develop a personal approach to customer care. This course may also be offered online. **Transfer Credit: CSU.**

Airline and Travel Careers A122—Travel Geography—United States (1.5)

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 Travel Careers A136—Corporate/Contract Flight Attendant (1)

This course provides hands-on training needed to qualify as a Corporate (Third Crewmember) Flight Attendant. Instruction will follow strict FAA guidelines required for Part 91 and Part 135 Code of Federal Regulations; indoctrination training, general emergency training, aircraft ground and differences training, including competency checks and testing. One hour lecture and one-half hour non-lecture. **Transfer Credit: CSU.**

Hospitality, Travel/Tourism A124—Destination Africa (1.5)

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. This course may also be offered online. **Transfer Credit: CSU.**

ALLIED HEALTH

Allied Health A010—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 and School of Allied Health Professions application. Required for admission to most allied health programs. This course may also be offered online. Offered on a pass-no pass basis only. Four hours.

Allied Health A011—Health Careers Connection (.5) (4 week course)

Prerequisite: Allied Health A010 or concurrent enrollment.

Career job shadowing in health occupations. Participation in a local medical facility to meet and shadow health care professionals and experience actual job related activities and responsibilities. Offered on a pass-no pass basis only. This course may be taken four times. Five hours field experience.

Allied Health A111—Medical Terminology (3)

Advisory: Biology A221.

Development of a medical vocabulary emphasizing building of terms utilizing prefixes, combining forms and suffixes. Includes symptomatic, therapeutic, diagnostic, operative and related diagnostic testing terms. Students learn the meaning & spelling of medical terms with application of terms to comprehend medical record documents. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Allied Health A115—Patient Care (2.5) (8 week course)

Prerequisite: Allied Health A010; non-native speakers must complete ESL A151 (exemption based on assessment results).

Prerequisite or concurrent enrollment: Allied Health A111.

A pre-clinical course taken within six months prior to first clinical entry. Orientation to clinical setting including communication, legal and ethical issues, healthcare finance, patient care techniques, CPR, emergency interventions, aspects of death and dying and employment as a healthcare professional. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Allied Health A120—Human Diseases (2)

Advisory: Allied Health A111 and Biology A221.

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 A130—Applied Pharmacology (2)

Advisory: Biology A221.

Common drug categories, methods, and legal aspects of drug administration; action, indication, hazards, metabolism, and excretion. Use of drugs in the treatment of various disease processes. Two hours. **Transfer Credit: CSU.**

Allied Health A199—Current Issues in Allied Health (.5) (1-8 week course)

This course deals with current issues in the allied health profession. Topics vary. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to nine hours. **Transfer Credit: CSU.**

Allied Health A280—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, scheduling of personnel and basic budgeting techniques. Two hours. **Transfer Credit: CSU.**

AMERICAN STUDIES

American Studies A100—Institutions (3)

A survey of selected political, social, economic, and cultural institutions of the United States. Topics may include the role of the media in the U.S., the American political culture, foreign policy, and the political party system. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

ANATOMY

(See Biology A220, A221, A223, or A225)

ANTHROPOLOGY

Anthropology A100—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. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

Anthropology A100H—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 A102—Native American (3)

An introduction to the development of Native American cultures prior to the introduction of European Civilization in the Western Hemisphere, 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Anthropology A105—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 of 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 A105. Students completing Anthropology A105 may not receive credit for Sociology A105. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Anthropology A110—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Anthropology A150—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 A150. Students completing Anthropology A150 may not receive credit for Sociology A150. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Anthropology A185—Physical (3)

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 A185L—Physical Anthropology Laboratory (1)

Prerequisite: Anthropology A185 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 pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Anthropology A190—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 A280—Introduction to Archaeology (3)

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 A282—Field Archaeology (3)

Advisory: Anthropology A280.

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 pass-no pass basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Anthropology A285—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 A101—Intro to Environmental Sustainability (1)

This course is an overview to environmental sustainability and will provide a fundamental understanding of the cultural, man-made and natural factors involved in creating ecological balance and ethical stewardship of natural resources. Focus will be on the building and design related aspects of sustainability. This course may also be offered online. **Transfer Credit: CSU.**

Architectural Technology A105—Architectural Drawing and Design Visualization 1 (2)

This introductory course in architectural visualization techniques will focus on how to communicate a three-dimensional design using a two-dimensional medium. Subjects and techniques presented will include orthographic projection, paralines, plan views, elevations, sections, basic perspective drawing, rendering materials and tonal values, and an introduction to SketchUp and hand modeling. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Architectural Technology A110—Introduction to Architecture (2)

This introductory course explores the professional and academic aspects of architecture and related professions. Lectures will include licensing, educational choices, history, practice, design, theory, structures, and personal goal setting; guest speakers and an office visit will give students a firsthand chance to observe multiple sides of the profession. This course may also be offered online. Two hours. **Transfer Credit: CSU; UC.**

Architectural Technology A115—Architectural Design and Theory 1 (4)

Prerequisite: Architectural Technology A105.

This beginning architectural design course includes the perceptual and physical study of three dimensional design theories, principles and compositional techniques used in the creation and manipulation of architectural form, space, and light. Focus will be on fundamental design skills and will progress to a complete architectural design project using models, drawings, and graphics to study and communicate the design. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Architectural Technology A150—CAD 2D for Architecture (2)

This course introduces Computer Aided Drafting (CAD) as used to produce 2-dimensional architectural drawings. PCs with Autodesk Architecture and/or ArchiCAD will be used and instruction will focus on computer drawing a simple project to include the following drawing types: floor plan, site plan, elevation, and enlarged section/details. Students should have basic knowledge of computer operation and file management. **Transfer Credit: CSU.**

Architectural Technology A155—BIM 1 for Architecture (2)

This course introduces Building Information Modeling (BIM) as used to produce a 3-dimensional architectural model with detailed construction information. PCs with Autodesk Revit, ArchiCAD, or Microstation will be used and instruction will focus on computer modeling a simple project and extracting construction documentation. Students should have basic knowledge of computer operation and file management. **Transfer Credit: CSU.**

Architectural Technology A156—BIM 2 for Architecture (2)

Advisory: Architecture Technology A155 (BIM 1) or comparable skills with BIM as determined by instructor.

This course introduces Building Information Modeling (BIM) as used to produce a 3-dimensional architectural model with detailed construction information. PCs with Autodesk Revit, ArchiCAD or Microstation will be used and instruction will focus on computer modeling a simple project and extracting construction documentation. Students

should have basic knowledge of computer operation and file management as well as construction. **Transfer Credit: CSU.**

Architectural Technology A160—3-D Modeling: SketchUp 1 (2)

This course introduces Google SketchUp 3-D Modeling as used for architectural design visualization. Computers with SketchUp Pro will be used and instruction will focus on computer modeling a rectilinear design and exporting images and animation for design presentation. Students should have basic knowledge of computers and file management. This course may also be offered online. **Transfer Credit: CSU.**

Architectural Technology A165—Presentation Graphics for Architecture (2)

This course is for architecture/design students who want to improve their graphic communication skills. Emphasis is on improving personal presentations and portfolios using Adobe Creative Suite: Photoshop, Illustrator, In-design, and/or Acrobat. Students should have knowledge of computer operation and file management and projects to bring in. **Transfer Credit: CSU.**

Architectural Technology A167—Video for Architecture (1)

This course is for architecture/design students and professionals who want to use digital video to present creative projects. Emphasis will be on narrative story-telling and communicating a message using Windows Moviemaker or Apple iMovie. Students should have knowledge of computer operation and file management and provide a USB drive. **Transfer Credit: CSU.**

Architectural Technology 170—Intro to Fabrication/Safety for Architecture (1)

This is a limited introduction to computer-assisted fabrication for architecture and custom construction and will cover shop safety and simple operations. Students will have the opportunity to use Computer Numeric Controls (CNC) and laser tools. **Transfer Credit: CSU.**

Architectural Technology A171—Fabrication 1 for Architecture (2)

This beginning course is on digital fabrication techniques for architecture and custom construction and will include shop safety. Focus is on designing and fabricating a basic project using Computer Numeric Controls (CNC) and laser tools. This course may be taken four times. **Transfer Credit: CSU.**

Architectural Technology A180—Architectural Drafting and Construction Documents (4)

Prerequisite: Architectural Technology A150.

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 lab. **Transfer Credit: CSU.**

Architectural Technology A185—Environmental Design Systems (4)

Prerequisite: Architectural Technology A180.

This intermediate design course focuses on the environmental, cultural, and physical forces that effect architecture. Students will research and utilize design approaches

and building components/systems that respond to human needs and the natural and built environments. Study topics will include site design and cultural context, environmental/climate responsive approaches to design, maintaining structural design integrity, incorporating life safety and access, and ecologically minded approaches to design. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Architectural Technology A199—Current Topics in Architecture (.5-4)

Current topics in Architecture may include cultural topics as well as architectural technology topics and could rotate through a variety of topics, such as field studies, design/build projects, design drawing studies, and construction drawing studies. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .50-4 hours lecture, .0-3 hours non-lecture. **Transfer Credit: CSU.**

Architectural Technology A201—Design/Build 1 for Architecture (2)

This learn-by-doing course involves the design and construction of a transportable structure. Students will work in teams with an instructor. Projects will vary and are likely to involve off-campus assembly. This course may be taken three times. **Transfer Credit: CSU.**

Architectural Technology A202—Design/Build 2 for Architecture (4)

This learn-by-doing course involves the design and construction of a structure or interior project. Students will work in teams with an instructor. Projects will vary and are likely to involve off-campus assembly. This course may be taken four times. **Transfer Credit: CSU.**

Architectural Technology A205—Architectural Drawing and Design Visual 2 (3)

Prerequisite: Architectural Technology A105.
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. A continuation of Architecture A105, this advanced studio builds on a basic understanding of design communication, strengthening complexity and design intention in two and three-dimensional visualization techniques; including freehand sketching, graphic conventions, modeling, perspective and orthographic drawings, shade/shadow, color rendering, graphic presentations, and portfolio development. This course may be repeated three times. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Architectural Technology A215—Architectural Design and Theory 2 (4)

Prerequisite: Architectural Technology A115.
This intermediate architectural design course teaches theories, principles, methods, and means to the creation of architectural space by manipulation of form, space, and light. Focus is on the critical consideration and communication of spatial sequence and organization, composition, 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 A220—Building Materials and Systems (4)

Prerequisite: Architectural Technology A180.
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 A225—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.**

Architectural Technology A230—Architectural Design and Theory 3 (5)

Prerequisite: Architectural Technology A215.
Advisory: Architectural Technology A205.
This advanced architectural design course is a continuation of Arch A215, dealing with theories, principles, methods and means used in the creation of architectural space by manipulation of form, space & light in an urban context. Focus is on the conceptual design process of establishing and challenging design criteria, communication and editing of design narrative, and portfolio development. This course may be repeated three times. Three hours lecture, seven hours non-lecture. **Transfer Credit: CSU.**

Architectural Technology A250—Building Codes and Standards (2)

Introduction to the codes and standards prevalent in the Southern California area. Concentration is on Title 24 and Americans With Disabilities Act regulations, and the Uniform Building Code and local enforcement as applied to building design. Two hours. **Transfer Credit: CSU.**

Architectural Technology A290—History of Architecture 1 (3)

The class is an introductory study of the development of architecture and urban environments from primitive shelters through the Early Baroque. The lectures and presentations focus on environments, architects, people of influence, and architectural movements of significance. Emphasis is placed on socio-political, economic, technological, and cultural influences in the evolution of architectural history. Three hours. **Transfer Credit: CSU; UC.**

Architectural Technology A296—History of Architecture 2 (3)

Introductory study of the history of world architecture and urbanism from the late 17th century to the present. Lectures and presentations focus on the architecture of various regions and historical periods, highlighting architects, buildings and environments of significance. Special emphasis is placed on the architecture of the 20th century and socio-political, economical, technological, cultural and global influences in the evolution of architecture. Three hours. **Transfer Credit: CSU; UC.**

ART

Art A100—History and Appreciation of Western Art: Prehistory Through Gothic (3)

A survey of architecture, sculpture, and painting beginning with Prehistory and concluding with the Gothic era. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Art A100H—Honors History and Appreciation of Western Art: Prehistory Through Gothic (3)

A survey of architecture, sculpture, and painting beginning with Prehistory and concluding with the Gothic era. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Art A101—History and Appreciation of Western Art: Proto-Renaissance through Post Impressionism (3)

A survey of painting, sculpture, and architecture beginning with the Proto-Renaissance (Late Gothic) and concluding with Post Impressionism. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Art A101H—Honors History and Appreciation of Western Art: Proto-Renaissance through Post Impressionism (3)

A survey of painting, sculpture, and architecture beginning with the Proto-Renaissance (Late Gothic) and concluding with Post Impressionism. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Art A102—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 A103—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Art A107—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Art A108—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Art A110—Color and Design: Two-Dimensional (3)

A basic course in the visual organization of the elements and principles of design as fundamental concepts in visual problem solving, composition, and color theory. Emphasis will be on the underlying nonobjective and abstract structure of visual art. Required for art majors and certificate programs. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A111—Color and Design: Three-Dimensional (3)

Prerequisite: Art A110.

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 A116—Furniture Making and Design (4)

The basic rules of furniture design and production with emphasis in 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. Same as Construction A116. Students completing Art A116 may not receive credit for Construction A116. This course may be taken four times. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Art A118—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 pass-no pass basis. Two hours lecture. **Transfer Credit: CSU.**

Art A119—Product Illustration 2 (2)

Prerequisite: Art A118.

Continuation of Product Illustration 1 to include more detailed renderings. May be taken for grades or on a pass-no pass basis. Two hours lecture. **Transfer Credit: CSU.**

Art A120—Beginning Drawing (3)

This course will emphasize the perceptual and technical skill of drawing by use of observational and drawing methodologies. The student will render natural and artificial forms as simple and complex volumes using a variety of media on paper. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A120H—Honors Beginning Drawing (3)

This course will emphasize the perceptual and technical skill of drawing by use of observational and drawing methodologies. The student will render natural and artificial forms as simple and complex volumes using a variety of media on paper. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

Art A121—Life Drawing (3)

Advisory: Art A120.

Figure drawing from the nude model. The study of volumes, foreshortening, structure, anatomy, and composition of the human form. Required of art majors. This course may be taken four times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

All courses numbered A100 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 A122—Human Anatomy for Artists (3)

Advisory: Art A120.

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. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A125—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. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A130—Painting 1 (3)

Prerequisite: Art A110 and A120.

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. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A131—Painting 2 (3)

Prerequisite: Art A130.

A continuation of Art A130 with emphasis on personal expression. Alternate painting mediums introduced. This course may be taken three times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A141—Sculpture 1 (3)

Exploration of sculptural material and concepts, technical experiences may include modeling, casting and fabricating with sculptural media. Two hours lecture, four hours lab. **Transfer Credit: CSU; UC.**

Art A142—Life Sculpture (3)

Prerequisite: Art A110.

Exploration of figurative sculpture from the human model. Emphasizing anatomical structure and expression. Experiences will include armature building, clay modeling, Kiln firing, glazing and staining of the finished sculpture. May be taken for grades or on a pass-no pass basis. This course may be taken four times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A143—Story Illustration Techniques (3)

Prerequisite: Art A121.

Principles of Illustration applied to various drawing and painting media. Imaginative application of theories and techniques that produce original illustrations with clear communication of concept. This course may be taken four times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU.**

Art A145—Exhibition Design (Gallery) (3)

Includes the solving of design problems related to gallery and museum exhibits. Emphasis on spatial planning, crowd flow and thematic presentation based on curatorial criteria. Development of skills related to art handling, lighting and signage graphics. Development of skills for framing, pedestal construction and model making for exhibition presentation. Recommended for all visual art and architecture students. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Art A147—Jewelry 1 (3)

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. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU.**

Art A150—Ceramics 1 (3)

An introduction to ceramic materials and various techniques associated with and necessary to work in ceramics. Exploration in Historical and traditional pottery form as well as trends in contemporary ceramics. Various glazing and firing techniques will include Stoneware, Porcelain and Earthenware. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A151—Ceramics 2 (3)

Prerequisite: Art A150.

Students will be introduced to the Potters Wheel and to various wheel thrown techniques. Students will be familiarized with functional Ceramics, studio organization and advanced technical language. The study of selected historic and contemporary information will be covered. This course may be taken three times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A170—Printmaking 1 (3)

Introduction to contemporary practices and aesthetics of printmaking. Formal elements and techniques using a broad range of materials and processes including: relief (linocut, woodcut), intaglio (drypoint, etching, collograph), lithography, and monoprinting. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A171—Printmaking 2 (3)

Prerequisite: Art A170.

Further development of formal, technical, and conceptual skills in printmaking. Emphasis on color printing and combinations of print techniques as well as development of personal handling of the media. Rotating concentration of specific print processes such as intaglio, relief and planographic. This course may be taken three times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A175—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. Emphasis on execution of original designs and understanding of contemporary applications. This course may be taken two times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU.**

Art A180—Professional Studies (1)

An exploration and identification of areas of employment and professional activity in art making. Presentation tech-

niques including a portfolio of art work, personal artistic statement, and critiques and reports reflecting an understanding of the information presented through guest lecturers, films and field trips. Recommended for all Visual Arts majors. Four hours lecture-studio. **Transfer Credit: CSU.**

Art A202—Introduction to Contemporary Art Theory (3)

Advisory: Art A102.

An in-depth introduction to the theory and philosophy of contemporary art issues and movements, presented in a group seminar environment to include lectures, slides, discussion, field trips to galleries and artist studios, as well as individual research and/or artwork. Recommended for all visual arts majors. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Art A220—Figure Composition (3)

Prerequisite: Art A121.

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. This course may be taken four times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A235—Experimental Painting (3)

Advisory: Art A110.

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. This course may be taken four times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A236—Life Painting (3)

Prerequisite: Art A121.

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 pass-no pass basis. This course may be taken four times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A241—Sculpture 2 (3)

Prerequisite: Art A141.

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. This course may be taken three times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A245—Exhibition Design (3)

Prerequisite: Art A145.

Continued coursework in the solving of design problems related to gallery and museum exhibits. Emphasis on spatial planning, crowd flow and thematic presentation based on curatorial criteria. Development of skills related to art handling, lighting and signage graphics. Development of skills for framing, pedestal construction and model making for exhibition presentation. Assignment of specific responsibilities in design and management Recommended for all visual art and architecture students. This course may be taken three times. Two hours lecture, four hours studio. **Transfer Credit: CSU.**

Art A247—Jewelry 2 (3)

Prerequisite: Art A147.

Further development of hand wrought jewelry fabrication techniques to include explorations in casting, hollow form construction, linking devices and lapidary. Emphasis will also be on individual 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU.**

Art A263—Painting in Watercolor (3)

Advisory: Art A110.

Materials, methods, composition, and color for both still life and landscape painting. This course may be taken four times. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A269—Cartooning 1 (3)

A basic course in cartooning for students interested in learning how to cartoon without any previous formal art training. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU; UC.**

Art A270—Cartooning 2 (3)

Prerequisite: Art A269.

A continuation of Cartooning 1 with an emphasis on developing drawing skills, story idea interpretation, and a professional approach to cartooning. 1.5 hours lecture 4.5 hours studio. **Transfer Credit: CSU.**

Art A286—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. This course may be taken four times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Astronomy A101—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Astronomy A102—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Astronomy A103—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

AVIATION MAINTENANCE TECHNOLOGY

(Formerly Aviation Technology)

Aviation Maintenance Technology A140—Helicopter Theory and Operations (3)

Rotary wing aircraft development, technology, and construction. Federal Aviation Administration (FAA) requirements for operation and maintenance. Survey of helicopter industry. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Aviation Maintenance Technology A150—General Maintenance Records - FAA (4)

Mechanic's privileges & limitations, maintenance forms and records, non-destructive testing, precision measurement, record keeping and ground operations. Two hours lecture, five hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A151—General Electricity - FAA (3)

Aircraft basic electricity, basic troubleshooting, and aircraft batteries. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A152—General Airframe & Powerplant Fuel Systems - FAA (2)

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. One hour lecture, four hours laboratory. **Transfer Credit: CSU.**

ASTRONOMY

Astronomy A100—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Astronomy A100H—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Astronomy A100L—Elementary Astronomy Laboratory (1)

Prerequisite: Astronomy A100 or concurrent enrollment. 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 A100A. Students completing Astronomy A100L may not receive credit for Natural Science A100A. May be taken for grades or on a pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Aviation Maintenance Technology A153—General Materials, Processes & Welding - FAA (3)

Materials used in aircraft, cleaning of parts, hardware and other fastener identification, and aircraft welding. One and one-half hours lecture, five and one-quarter hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A154—General Weight & Balance, Math & Physics - FAA (3)

Theory and practical experience in a variety of aircraft math, physics, and 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 A155—General Blueprint Reading & Drafting - FAA (2)

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. One and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Aviation Maintenance Technology A160—Airframe & Powerplant Electricity - FAA (6)

Advisory: Aviation Maintenance Technology A151.

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 A161—Airframe Sheet Metal & Composite Structural Repair - FAA (5.5)

Advisory: Aviation Maintenance Technology A153.

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 A162—Airframe Assembly & Rigging, Pneumatics & Environmental Control Systems - FAA (3)

Advisory: Aviation Maintenance Technology A153.

Fundamental theory of assembly, cabin control systems, and rigging. Practical experience in rigging, assembly, disassembly, repair, overhaul, testing, inspection, and operation of component parts. Two hours lecture, four and one-half hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A163—Airframe Hydraulics and Landing Gear - FAA (4.5)

Advisory: Aviation Maintenance Technology A150 and A152.

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.**

All courses numbered A100 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 A170—Powerplant Reciprocating Engines -FAA (6)

Advisory: Aviation Maintenance Technology A150 and A153.

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 A171—Powerplant Fuel Metering, Exhaust & Induction Systems -FAA (4)

Advisory: Aviation Maintenance Technology A152.

Aircraft reciprocating engine fuel metering, induction, cooling, and exhaust systems. Two and one-half hours lecture, five hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A172—Powerplant Propeller and Lubricating Systems - FAA (4)

Advisory: Aviation Maintenance Technology A170.

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 A173—Powerplant Gas Turbine Engines - FAA (6)

Advisory: Aviation Maintenance Technology A150 and A153.

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 A174—Powerplant Ignition Systems - FAA (2.5)

Advisory: Aviation Maintenance Technology A151.

Fundamental theory of ignition systems and practical experience in disassembly, repair, overhaul, inspection, and testing of ignition components. One and one-half hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A180—Airframe and Powerplant Instrumentation - FAA (2.5)

A survey and limited practical experience of basic instrumentation systems used in private, corporate, and commercial aircraft. Included are aircraft nomenclature, acronyms, and use of computer-based training systems. One and three-quarter hours lecture, two and one-half hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A181—Airframe Communication and Navigation Systems - FAA (2)

Advisory: Aviation Maintenance Technology A180.

Survey of avionic systems used in navigation and communication and use of computer-based flight management systems, flight deck orientation, and theory of flight. One and one-half hours lecture, one and three-quarters hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A182—Avionics Installation Principles (4)

Prerequisite: Aviation Maintenance Technology A151.

Schematic reading, use of multimeter, Series and parallel circuits. Avionics terminology, system interfacing, Avionics install standard practices. Diagnostic test equipment and fault finding logic tree techniques to a systems level. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A184—Avionics Installation and Troubleshooting (4)

Prerequisite: Aviation Maintenance Technology A182.

Advisory: Aviation Maintenance Technology A151.

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. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Aviation Maintenance Technology A188—G.R.O.L. and Avionics Rules and Regulations (1.5)

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 A290—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.**

AVIATION PILOT TRAINING

(Formerly Aviation and Space)

Aviation Pilot Training A130—Private Pilot Aviation Ground School (5)

Entry level course for commercial pilot training program. Covers basic aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors and cross country navigation procedures. Provide introductory material on radio navigation, radio communications procedures, human factors and aviation safety. Meets the preparation requirements for the FAA Private Pilot computerized knowledge examination. Five hours. **Transfer Credit: CSU.**

Aviation Pilot Training A132—Aviation Navigation (3)

Advisory: Aviation Pilot Training A130, current Private Pilot Certificate or successful completion of FAA Private Pilot Written Examination. This advisory will be validated in class during the first week of the course.

This course provides academic background for pilots preparing for the FAA Commercial Pilot license and FAA Instrument rating. The course will cover basic visual navigation, instrument navigation, use of Global Positioning Systems and an introduction to Flight Management Computers. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A133—Aviation--Meteorology (3)

Entry level course for commercial pilot training program. This course will cover the forces which generate and affect weather, weather systems, aviation weather services and cross country weather planning procedures. The course will also provide detailed material on aviation weather hazards and aviation meteorological reports. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A134—Instrument Pilot Aviation Ground School (3)

Advisory: Aviation Pilot Training A130, current Private Pilot Certificate or FAA Private Pilot Written Examination passed. This advisory will be validated in class during the first week of the course.

Provides academic background for Private Pilots preparing for the FAA Instrument Rating. Covers principles of instrument flight, aircraft performance, Federal Aviation Regulations, aviation weather factors and IFR cross country navigation procedures. Provides material on Instrument Approach Procedures, IFR operational procedures, human factors and aviation safety. Meets the preparation requirements for the FAA Instrument rating computerized knowledge examination. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A136—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 A138—Aerodynamics (3)

Course covers the basic principles of flight theory in both low and high speed regimes. Airflow theory, airfoil design, high lift devices, induced and parasitic drag, stall patterns, climb and sink performance, thrust and power, control & stability in the subsonic, transonic, and supersonic conditions. Extensive discussion of stall/spin aerodynamics and recovery techniques. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A139—Commercial Pilot Aviation Ground School (3)

Advisory: Aviation Pilot Training A130 and A132 and A133 or current Private Pilot Certificate with Instrument rating. This advisory will be validated in class during the first week of the course.

Provides academic background for Private Pilots preparing for the FAA Commercial Pilot license. Covers transport category aircraft performance considerations, advanced weight and balance, swept wing and multi-engine aerodynamics and Federal Aviation Regulations applicable to Commercial pilots. Meets the preparation requirements

for the FAA Commercial Pilot computerized knowledge examination. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A140—Flight Instructor Ground School (3)

Advisory: Aviation Pilot Training A139.

Academic preparation for written and practical examinations for Certificated Flight Instructor, Airplane. Covers basic aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors and cross country navigation procedures. Provides in depth instruction in the fundamentals of teaching and learning and ground and in-flight instructional techniques. Meets the preparation requirements for the FAA Flight Instructor computerized knowledge examination and Fundamentals of Learning computerized knowledge examination. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A141—Instrument Flight Simulator Lab (3)

Prerequisite: Aviation Pilot Training A134 or concurrent enrollment.

Advisory: Aviation Pilot Training A130 or complete Private Pilot Written Examination.

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 pass-no pass basis. This course may be taken four times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Aviation Pilot Training A145—Turbine Aircraft Sys & Theory (3)

Prerequisite: Aviation Pilot Training A130 and A134.

Advanced course for pilots with emphasis on turbine aircraft performance, aerodynamics and systems. Course covers all major turboprop and jet systems, along with such topics as crew coordination (CRM), high-altitude weather, high speed aerodynamics, and preparing for ground and flight training. Course also covers explanations of turbine aircraft terminology and procedures. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A180—Basic Air Transportation (3)

Provides an analysis of the airline industry by providing historical background information on the evolution of the United States air transportation system along with a current analysis of the airlines, air traffic control system, business aviation and general aviation. The goal is to prepare students for entry into the airline industry through an analysis of market factors that influence airline operations as well as fleet planning, route planning, strategic planning and labor issues. Three hours. **Transfer Credit: CSU.**

Aviation Pilot Training A192—Human Factors and Crew Resource Management (1.5)

Course encompasses a wide range of knowledge, skills and attitudes including communications, situational awareness, problem solving, decision making, and teamwork; together with the entire attendant sub-disciplines which each of these areas entails. CRM can be defined as a management system which makes optimum use of all available resources - equipment, procedures and people - to promote flight safety and enhance the efficiency of flight operations. Three hours. **Transfer Credit: CSU.**

BACTERIOLOGY

(See Biology A210)

BIOLOGY

(See also Ecology)

Biology A100—Principles of Biology (4)

A general study of life processes with emphasis on biological chemistry, cells, molecular biology, heredity, ecology, evolution, and the 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 A101—The Biology of Cooking (3)

Ever wondered why grilled meat tastes so good? Why meringues are made with egg whites and not egg yolks? Why tomatoes are considered a fruit instead of a vegetable? These questions (and more!) will be answered in demonstration-filled lectures as we use the reagents of the kitchen to teach the basic principles of biology and the scientific method. Three hours. **Transfer Credit: CSU; UC.**

Biology A114—Basic Microbiology (2)

Microbiology as applied to disease, treatment, immunity and the environment. 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.**

Biology A125—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC. Transfer Credit: CSU; UC.**

Biology A140—The Biology of Drugs (1)

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 A160—Biology of Sexually Transmitted Diseases (2)

The biology of sexually transmitted diseases including AIDS, herpes, and other currently significant topics. Designed to meet community needs and the needs of those seeking transfer credits in a non-lab biology course in anatomy, physiology and immunology of sexually transmitted diseases. May be taken for grades or on a pass-no pass. Two hours. **Transfer Credit: CSU.**

Biology A172—Nature of Birds (2)

An introductory course to bird identification, their life, and their habitats. Emphasis will be on the physical characteristics of birds, how birds evolved, their classification, diet, behavior, reproduction strategies, flight mechanics, migration patterns, and characteristics of their natural habitat. There will be at least four field trips. May be taken for grades or on a pass-no pass basis. This course may be taken three times. Two hours. **Transfer Credit: CSU.**

Biology A181—Cell and Molecular Biology (4)

Prerequisite: Chemistry A130 with a grade of 'C' or better. Non-native speaking students must be eligible to enter ESL A131 and A135.

Designed for the major in the biological sciences and pre-health profession majors. Emphasizing central concepts of biology, including biochemistry, cell biology, membrane dynamics, molecular genetics, classical genetics, virology, biotechnology, and biotechnology. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Biology A181H—Honors Cell and Molecular Biology (4)

Prerequisite: Chemistry A130 with a grade of 'C' or better or placement in Chemistry A180 based on chemistry assessment; non-native English speaking students must be eligible to enter English as a Second Language A131 or A135.

Designed for the major in the biological sciences and pre-health profession majors. Emphasizing central concepts of biology, including biochemistry, cell biology, membrane dynamics, molecular genetics, classical genetics, virology, biotechnology, and biotechnology. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Biology A182—Zoology (3)

Includes 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 A182L—Zoology Lab (1)

Prerequisite: Biology A182, 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 A183—Botany (3)

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 A183L—Botany Lab (1)

Prerequisite: Biology A183, 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 A185—Diversity of Organisms (5)

Prerequisite: Biology A181 or A181H 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. This course may also be offered online. Four hours lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

All courses numbered A100 or higher are transferable to the California State Universities (CSU).

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Biology A198—Exploration of Careers in Biology (1)

Advisory: Biology A181 or Marine Science A100 with Marine Science A100L.

An introduction to the range of biological careers and the steps required to enter those careers. Includes presentations by and discussions with, professional biologists currently working in industry, medicine, and academia. While medically-related careers will be discussed, they will not be the primary focus. Offered on a pass-no pass basis only. This course may be taken two times. One hour. **Transfer Credit: CSU.**

Biology A210—General Microbiology (5)

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 A211—Food and Microorganisms (2)

Prerequisite: Biology A114 or A210.

Role of microorganisms in the production and spoilage of food; food borne illnesses. May be taken for grades or on a pass-no pass basis. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

Biology A220—General Human Anatomy (5)

This course introduces the structure of the human body. Taught from a functional perspective, it emphasizes the relationship of structure (Anatomy) to function (Physiology). Laboratory participation is required. It is designed to satisfy requirements for nursing, physical therapy and physical education majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

Biology A220H—Honors General Human Anatomy (5)

This course introduces the structure of the human body. Taught from a functional perspective, it emphasizes the relationship of structure (Anatomy) to function (Physiology). Laboratory participation is required. It is designed to satisfy requirements for nursing, physical therapy and physical education majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

Biology A221—Anatomy-Physiology (4)

Anatomy and physiology as a combined discipline. Designed for Career and Certificate Programs. 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 A225—Introduction to Physiology (5)

Prerequisite: Biology A220 or A221 and Chemistry A110.

This course presents the functions of the human body, with an emphasis on the relationship of structure (Anatomy) and function (Physiology). Basic concepts and practical applications are stressed. Laboratory participation is required. This course meets requirements for pre-nursing, physical therapy and physical education majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

Biology A225H—Honors Introduction to Physiology (5)

Prerequisite: Biology A220 or A220H or A221 and Chemistry A110.

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.**

Biology A280—Evolutionary Ecology (4)

Prerequisite: Biology A181.

Advisory: Biology A182 and A183, or A185.

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 A281—Biochemistry (2)

Prerequisite: Biology A181 and Chemistry A220.

Corequisite: Chemistry A225.

An introduction to the chemistry of biology. This course is designed to satisfy transfer requirements for some biology majors. Two hours. **Transfer Credit: CSU; UC.**

Biology A281H—Honors Biochemistry (2)

Prerequisite: Biology A181 or A181H and Chemistry A220.

Corequisite: Chemistry A225.

An introduction to the chemistry of biology. This course is designed to satisfy transfer requirements for some biology majors. Two hours. **Transfer Credit: CSU; UC.**

Biology A282—Molecular Biology (2)

Prerequisite: Biology A281.

An introduction to molecular biology emphasizing gene structure and function. This course is designed to satisfy transfer requirements for some biology majors. Two hours. **Transfer Credit: CSU; UC.**

Biology A282H—Honors Molecular Biology (2)

Prerequisite: Biology A281 or A281H.

An introduction to molecular biology emphasizing gene structure and function. This course is designed to satisfy transfer requirements for some biology majors. Two hours. **Transfer Credit: CSU; UC.**

Biology A283—Genetics (4)

Prerequisite: Biology A181 or A181H with a grade of 'C' or better.

Corequisite: Chemistry A180.

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. Additional emphasis is placed on problem solving. Four hours. **Transfer Credit: CSU; UC.**

BROADCASTING ARTS

Broadcasting Arts A105—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.**

BUSINESS

(For Business Mathematics see Business A125)

Business A100—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 A100H—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 A107—MS Windows (1)

Develop 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. Will be taught the concepts of file and folder management and the use of control panel. Same as Computer Information Systems A107. Students receiving credit for Business A107 may not receive credit for Computer Information Systems A107. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Business A110—Business Law (3)

Focuses on the legal and regulatory environment of business and management, including the legal system and methods of resolving disputes. The court system, trials and appeals, ethics, the Constitution, crimes and torts, contracts, product liability, employment, antitrust, and international perspectives will be examined. Case studies will be presented. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

Business A117—International Business Law (3)

Examines the legal and regulatory aspects of conducting business internationally. Includes business negotiations, contracts, documentation, financial transactions, international commercial dispute resolution, licensing, joint ventures, intellectual property rights and compliance with U.S. laws. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Business A118—Introduction to International Business (3)

Provides an overview of international business. Explores political, financial, and legal environments of selected countries and their impacts on firms' international business activities. Emphasis is given to business practices and comparative cultural topics. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Business A119—Applied International Business (3)

Integrates the knowledge, skills, and abilities learned in the International Business Program. Special emphasis is given to current international business cases and topics. Cases and concepts are drawn from the major functional areas of international business. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Business A120—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. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Business A125—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.**

Business A126—Introduction to E-Commerce (2)

Advisory: Computer Information Systems A122.

This fundamental course introduces students to some of the most important topics about E-Commerce, including Web security issues, electronic payment systems, legal issues, and examining various online businesses and organizations. In addition, students will create a homepage for a business. Same as Computer Information Systems A126. Students completing Business A126 may not receive credit for Computer Information Systems A126. May be taken for grades or on a pass-no pass basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Business A133—PowerPoint (1)

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 Computer Information Systems A133. Students completing Business A133 may not receive credit for Computer Information Systems A133. This course may also be offered online. May be taken for grades or on a pass-no pass basis. One hour. **Transfer Credit: CSU.**

Business A134—Excel 1 (2)

Topics include spreadsheet concepts, model building, formula development, formula functions, charts, and list functions. Provides preparation for students seeking Microsoft Office Specialist (MOS) core certification. Same as Computer Information Systems A134. Students completing Business A134 may not receive credit for Computer Information Systems A134. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Business A138—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Business A139—Business Communication (3)

Prerequisite: English A100 with grade of 'C' or better.

Designed to develop writing skills necessary for effective business communications. Emphasizes skill in applying, planning, writing, and verbalizing business communication techniques. 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 A140—Public Relations (3)

Advisory: English A100.

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 A140. Students completing Business A140 may not receive credit for Mass Communications A140. Three hours. **Transfer Credit: CSU.**

Business A200—Business Finance (3)

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 A210—Securities Investment (3)

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. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Business A212—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Business A234—Excel 2 (2)

Advisory: Business A134 or Computer Information Systems A134.

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. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. Same as Computer Information Systems A234. Students completing Business A234 may not receive credit for Computer Information Systems A234. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Business A239—Professional Communication (3)

Study of communication functions, choices, and roles for professionals in business. Practice in using verbal, nonverbal, and writing skills to communicate one-on-one, electronically, and in groups. Same as Management A239. Students completing Business A239 may not receive credit for Management A239. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Business A240—Introduction to Entrepreneurship (3)

This course examines essential activities required for launching a new business venture. Some of the topics students are exposed to include: feasibility analysis, components of a business plan, business model, intellectual property, marketing, ethics, taxes, break-even analysis, and etc. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

CARDIOVASCULAR TECHNOLOGY

Cardiovascular Technology A100—Introduction to Electrocardiography (2)

Prerequisite: Biology A221.

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 heartblocks. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Cardiovascular Technology A130—Introduction to Invasive Cardiology (3)

Prerequisite: Cardiovascular Technology A160.

Corequisite: Cardiovascular Technology A150.

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.**

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Cardiovascular Technology A150—Advanced Electrocardiography (2)

Prerequisite: Cardiovascular Technology A100.

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 A160—Cardiac Anatomy/Pathophysiology (3)

Prerequisite: Allied Health A111, or concurrent enrollment, and Biology A221.

Cardiac anatomy, physiology, and pathology. 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 A170—ECG Clinical Experience (3)

Prerequisite: Allied Health A115 and Cardiovascular Technology A160.

Corequisite: Cardiovascular Technology A150.

Assigned clinical practice within a health care facility in areas of routine ECG testing, stress testing, monitor technician, Holter monitoring, and pacemaker evaluation. Offered on a pass-no pass basis only. One hour lecture, sixteen hours clinical/laboratory. **Transfer Credit: CSU.**

Cardiovascular Technology A200—Introduction to Echocardiography (3)

Prerequisite: Cardiovascular Technology A160.

Corequisite: Cardiovascular Technology A205.

Theory, equipment, and procedures for echocardiography to include M-mode, 2D, and Doppler. Recognition of specific echocardiographic patterns and abnormalities. Relates anatomical cardiac images to echocardiographic images. Three hours. **Transfer Credit: CSU.**

Cardiovascular Technology A205—Introduction to Echocardiography Lab (1)

Corequisite: Cardiovascular Technology A200.

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 found in diagnostic ultrasound imaging evaluation for cardiac function. Three hours. **Transfer Credit: CSU.**

Cardiovascular Technology A210—Echocardiography Clinical Lab 1 (5)

Prerequisite: Cardiovascular Technology A160

Corequisite: Cardiovascular Technology A200 and A205.

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 pass-no pass basis only. Twenty-four hours clinical, one hour discussion/seminar. **Transfer Credit: CSU.**

Cardiovascular Technology A240—Invasive Cardiology Clinical Lab 1 (5)

Corequisite: Cardiovascular Technology A130.

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 pass-no pass basis only. Twenty-five hours. **Transfer Credit: CSU.**

Cardiovascular Technology A250—Advanced Echocardiography (2)

Prerequisite: Cardiovascular Technology A200 and A205.

Corequisite: Cardiovascular Technology A255.

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 A255—Advanced Echocardiography Lab (1)

Prerequisite: Cardiovascular Technology A200 and A205.

Corequisite: Cardiovascular Technology A250.

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 Exam Review. Three hours. **Transfer Credit: CSU.**

Cardiovascular Technology A260—Cerebrovascular Ultrasound (2)

Prerequisite: Cardiovascular Technology A200.

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 relating to pathologies. Two hours. **Transfer Credit: CSU.**

**Cardiovascular Technology A265—
Echocardiography Clinical Lab 2 (6)**

Prerequisite: Cardiovascular Technology A210.

Corequisite: Cardiovascular Technology A250 and A255. 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 pass-no pass basis only. Twenty-seven hours clinical, one hour discussion/seminar. **Transfer Credit: CSU.**

CHEMISTRY

Chemistry A100—Principles of Chemistry (3)

Non-mathematical 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Chemistry A110—Introductory Chemistry (5)

Prerequisite: Mathematics A010 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 A180 or A130. May be taken for grades or on a pass-no pass basis. Four and one-half hours lecture, two and one-half hours laboratory. **Transfer Credit: CSU; UC.**

Chemistry A130—Preparatory General Chemistry (4)

Prerequisite: Mathematics A030 (or appropriate placement).

Advisory: Eligibility for ESL A160 or English A099.

Introduction to the principles, calculations, and laboratory techniques of chemistry for students planning to take Chemistry A180. May be taken for grades or on a pass-no pass basis. Three and one-half hours lecture, two and one-half hours laboratory. **Transfer Credit: CSU; UC.**

Chemistry A180—General Chemistry (5)

Prerequisite: Math A030 (or appropriate placement) with grade of 'C' or better, and Chemistry A130 (or appropriate placement) with grade of 'C' or better based on chemistry assessment plus one year of high school chemistry.

Safety prerequisite: ESL students must be eligible to enter ESL A131 and ESL A135.

This course studies gases, solutions, reactions, bonding theories, acid-base, and redox theory. Four hours lecture, five hours laboratory. **Transfer Credit: CSU; UC.**

Chemistry A185—General Chemistry (5)

Prerequisite: Chemistry A180 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 A220—Organic Chemistry 1 (3)

Prerequisite: Chemistry A185 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 A221—Organic Chemistry Laboratory 1 (2)

Prerequisite: Chemistry A185.

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 A225—Organic Chemistry 2 (3)

Prerequisite: Chemistry A220 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 A226—Organic Chemistry Laboratory 2 (2)

Prerequisite: Chemistry A221.

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.**

CHINESE

Chinese A180—Elementary Chinese (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in Mandarin Chinese, with an introduction to cultures related to the Chinese language. This course is equivalent to two years of high school Chinese. **Transfer Credit: CSU**

**COMPUTER AND HIGH
TECHNOLOGY**

Computer and High Technology A100—Computer Use in Technology (3)

An introduction to the current state of computer hardware and software 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 A090—Beginning Computer Keyboarding 1 (1.5)

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 words per minute. This course may also be offered online. Offered on a pass-no pass basis only. Two hours lecture, three hours laboratory.

**Computer Information Systems A091—
Keyboarding Speed and Accuracy (1.5)**

Prerequisite: Computer Information Systems A090.

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 pass-no pass basis only. This course may be taken two times. Two hours lecture, three hours laboratory.

Computer Information Systems A092—Beginning Computer Keyboarding 2 (1.5)

Prerequisite: Computer Information Systems A090.

Keyboarding on the computer for students who can type by touch control and know alphabetic, numeric, and symbolic keys presented in Computer Information Systems A090. 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 pass-no pass basis only. Two hours lecture, three hours laboratory.

**Computer Information Systems A100—
Introduction to Computer Applications (3)**

Introductory computer course for MS Windows and applications. Students learn about the computer operating system and software applications for word processing, spreadsheets, multimedia presentations, Internet, and social networking tools. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

Computer Information Systems A106—PC Concepts: Linux/Certification Preparation (4)

Advisory: Computer Information Systems A109 and A110.

This course provides an overview of the Linux operating system through the basic administration level. The student will be introduced to the configuration of Linux software and hardware, User and Group creation and management, process management, Linux rights and security. This course prepares the student for the CompTIA Linux + test. **Transfer Credit: CSU.**

Computer Information Systems A107—MS Windows (1)

Develop 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. Will be taught the concepts of file and folder management and the use of control panel. Same as Business A107. Students receiving credit for Computer Information Systems A107 may not receive credit for Business A107. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A109— Introduction to Linux (2)

Advisory: Computer Information Systems A110.

This course teaches students the basic Linux OS and Operating System commands. These include file system navigation, Graphical User Interfaces (GUI) such as Gnome and KDE, file permissions, the Linux text editors, command shells, basic network commands and introduces basic Linux applications. This class is mapped to Novell CLP & LPI-L1 guidelines. This course may also be offered online. **Transfer Credit: CSU.**

Computer Information Systems A110—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 pass-no pass basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A111— Introduction to Computer Information Systems (3)

Introductory course in the applications of information systems in business. Students will learn about Information Systems, hardware and software components, networks, ethics and security issues, e-commerce, and Web page design. Use of spreadsheet and database management software to create computer-based solutions to business problems. Meets the lower division computer requirement for business majors at some CSU and UC campuses. This course may also be offered online. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Computer Information Systems A112—Educational Applications of Technology (2)

Provides 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, digital cameras, scanners, and basic hardware and software evaluations. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A117—Computing Tools for Today's Student (2)

Instruction and practice in using current and upcoming technology to succeed as a student. Focus on software and hardware solutions for organizing and completing coursework, studying, note-taking, giving in-class presentations, and collaborating with other students. Introduction to online classes and learning resources such as podcasts and blogs. This course may also be offered online. This course may be taken three times. Two hours lecture, one hour lab. **Transfer Credit: CSU.**

Computer Information Systems A122— Introduction to the Internet (1.5)

Applications of the Internet, such as using email, researching subject material on the WWW, uploading and downloading files, configuring a personal computer to connect to the Internet, selecting an Internet service provider, Internet security and ethics, blogging, telephony, video, social networking, and the fundamentals of web page cre-

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ation. May be taken for grades or on a pass-no pass basis. Three hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A123— Introduction to Web Page Design (2)

This course will provide a practical understanding of the HTML and XHTML 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 pass-no pass basis. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A126— Introduction to E-Commerce (2)

Advisory: Computer Information Systems A122.

This fundamental course introduces students to some of the most important topics about E-Commerce, including Web security issues, electronic payment systems, legal issues, and examining various online businesses and organizations. In addition, students will create a homepage for a business. Same as Business A126. Students completing Computer Information Systems A126 may not receive credit for Business A126. May be taken for grades or on a pass-no pass basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A128— Introduction to Dreamweaver (2)

Advisory: Computer Information Systems A123.

Students will use the Dreamweaver program to effectively create, manage and maintain web sites. Students will work in an environment that integrates visual and code editing tools. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A129—Cascading Style Sheets (CSS) for Web Pages (2)

Prerequisite: (Advisory:) Computer Information Systems A123.

This course covers creating and using Cascading Style Sheets for formatting Web pages. Intended for students who know how to create web pages using HTML and XHTML. This course may also be offered online. Two hours lecture, one hour lab. **Transfer Credit: CSU.**

Computer Information Systems A131— Microsoft Word 1 (2)

Advisory: Computer Information Systems A090 or key-boarding speed of at least 30 wpm.

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 pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A132—Business Multimedia and Graphics (2)

The student will use Adobe Studio MX and Adobe PhotoShop to create, modify, implement and manage Web pages and sites that utilize multimedia interactivity and graphics for personal, business and educational use. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A133—PowerPoint (1)

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 A133. Students completing Computer Information Systems A133 may not receive credit for Business A133. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A134—Excel 1 (2)

Topics include spreadsheet concepts, model building, formula development, formula functions, charts, and list functions. Provides preparation for students seeking Microsoft Office Specialist (MOS) core certification. Same as Business A134. Students completing Computer Information Systems A134 may not receive credit for Business A134. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A135— Introduction to Microsoft Access (2)

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 pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A137—Microsoft Outlook (1)

The basics of communicating by e-mail. Students will learn how to send instant messages. Other topics include the use of the 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 pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Computer Information Systems A141—Flash Programming (3)

Introduces students to the fundamental concepts of the Adobe Flash environment and ActionScript programming. Topics include animation techniques, vector graphics, use of sound, and scripting fundamentals. Upon completion of the course students will be able to create tutorials and

design games delivered on CD ROM and Web technologies. May be taken for grades or on a pass-no pass basis. This course may also be taken online. Three hours lecture, one hour lab. **Transfer Credit: CSU.**

Computer Information Systems A149—Office Skills (3)

Prerequisite: Computer Information Systems A092.
Personal qualities and office skills required of an office assistant in a high tech, multicultural labor force. Office applications generated with Microsoft Office, enhanced verbal and written communications skills, 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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Computer Information Systems A171—JavaScript 1 (2)

Advisory: Computer Information Systems A123.
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 pass-no pass basis. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Computer Information Systems A176—SQL Server Administration (4)

Advisory: Computer Information Systems A111 or equivalent.
Covers the terminology, technology and software used to administer a Microsoft SQL Server database. Student will learn to create and maintain an SQL Server database, backup and restore data, create HTTP endpoints, perform automatic maintenance and configure database snapshots, mirroring, transaction log shipping and database replication. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A177—SQL Server Design and Implementation (4)

Advisory: Computer Information Systems A111 or equivalent.
Covers the terminology, technology and software used to design a Microsoft SQL Server database. Students will learn how to design logical and physical databases, create tables, views, stored procedures, triggers, constraints and indexes, secure a database, retrieve data in a XML format, and use Reporting and Integration Services. May be taken for grades or on a pass-no pass basis. This course may also be offered online. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A178—SQL Tuning Workshop (2.0)

Advisory: Computer Information Systems A182 and A183.
SQL Tuning covers methods to create and execute efficient SQL statements using hints, query rewrite, bind variables and different index types. Detailed analysis of SQL execu-

tion plans, real-time performance monitoring, and application tracing. Provides preparation for students seeking the Oracle Certified Professional certification. **Transfer Credit: CSU.**

Computer Information Systems A179—PL/SQL II (2.0)

Advisory: Computer Information Systems A182, & A183.
PL/SQL II Programming covers advanced features including packages, cursors, extended interface methods, large objects and collections. Emphasis is placed on tuning and efficient design practice. All course topics are demonstrated with hands-on practices. Provides preparation for students seeking Oracle Certified Developer certification. **Transfer Credit: CSU.**

Computer Information Systems A182—Introduction to Database Concepts (4)

Advisory: Computer Information Systems A111.
Introduction to database concepts. Covers database design, implementation, and management. Includes introduction to relational database, database modeling using ERD and UML, normalization, structured query language SQL, client/server systems, and data warehousing. Provides preparation for students seeking Oracle Developer and/or DBA Certification. This course may also be offered on line. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A183—Oracle SQL Programming (4)

Advisory: Computer Information Systems A111 and A182.
An introduction to Structured Query Language (SQL) for use in Oracle database environment. The course covers the skills necessary to query a database, access meta-data, create database objects, execute scripts, and format reports. Provides preparation for students seeking Oracle Developer and/or Oracle Database Administrator certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A184—Oracle PL/SQL Programming (3)

Advisory: Computer Information Systems A183.
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. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Computer Information Systems A185—Oracle Forms and Reports Developer (4)

Advisory: Computer Information Systems A183.
Introduction to Oracle Forms and Reports environments. Learn how to customize forms, design and control data access, build reports, use forms to test and debug Web applications, use Reports Builder and Wizard to retrieve data and publish reports. Provides preparation for students seeking Oracle Developer certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A187—Oracle Database Administration I (3)

Advisory: Computer Information Systems A106, A182 & A183.
An introduction to Oracle database administration. Create and install a database, create users, set up security, and utilize Oracle Enterprise Manager to administer and monitor an Oracle database. Provides preparation for students seeking Oracle Database Administrator certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Computer Information Systems A188—Oracle Database Administration II (3)

Advisory: Computer Information Systems A182, A183, A187.
Oracle DBA II covers advanced Oracle database administration concepts including backup and recovery, RMAN and Enterprise Manager, performance tuning, Oracle advisors, flashback, job scheduling, and Oracle network configuration. Topics emphasized through hands-on practices. Provides preparation for students seeking Oracle Certified Professional certification. This course may be offered online. May be taken for grades or on a pass-no pass basis. **Transfer Credit: CSU.**

Computer Information Systems A191—Network and Communications Technologies (4)

Advisory: Computer Information Systems A110.
Provides an introduction to an 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. Provide preparation for students seeking the Network + Certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A192—Network Systems Administration (4)

Advisory: Computer Information Systems A110 and A191.
Covers terminology, technology, topologies and software used in the Microsoft Windows servers. Students will learn to create user accounts, implement different levels of security, apply diagnostics and back up and maintain the software. Will help prepare students for the Microsoft Certified Systems Engineer (MCSE) exams. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A193—Network Infrastructure Administration (3)

Advisory: Computer Information Systems A192.
Provides students with knowledge required to setup, configure, and support network infrastructures using the TCP/IP protocol. Topics include IP addresses, point-to-point tunneling protocols, DNS and DHCP services. Will help prepare students for the Microsoft Certified Systems Engineer (MCSE) exams. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Two and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A194—Network Directory Services Administration (3)

Advisory: Computer Information Systems A192.

Provides a study of the procedures necessary to plan, implement, and troubleshoot directory service infrastructures, including forests and domains, DNS, site topology and replication, and directory strategies. 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 pass-no pass basis. Two and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A196—Network Security Design (4)

Advisory: Computer Information Systems A192.

Provides the knowledge and skills to design a security framework for small, medium, and enterprise networks. It focuses on providing secure access for local and remote users accessing resources using both public and private networks. Helps 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 pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A197—Networking Essentials (Cisco 1) (4)

Advisory: Computer Information Systems A110.

This course provides an introduction to an overview of the field of network technologies, data communications, infrastructure and connectivity, with emphasis on terminology, hardware, and software associated with the various components of a network. It covers the Open Systems Interconnections (OSI) reference model, data transmission, network structures and the TCP/IP protocols. This course covers Cisco's CCNA I content and provides preparation for students seeking the Cisco CCNA Certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A198—Routing and Router Configurations (Cisco II) (3)

Prerequisite: Computer Information Systems A197.

In this class students will become familiar with the terminology and technology used to design and build local area networks. The class uses concepts of hardware, software, design and management techniques to implement computer networks for business. Students will discuss WANs, routing protocols and IP addressing and subnetting techniques. This course covers Cisco's CCNA II content and provides preparation for students seeking the Cisco CCNA Certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Two and one-half hours lecture, one and one-half hour, non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A199—Current Topics in Computer Applications (1-4)

Covers topics currently receiving attention in the computer industry. Units vary according to topic selected, semester offered, and the number of meetings scheduled. This course may also be offered online. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to four hours lecture, 0-three hours non-lecture. **Transfer Credit: CSU.**

All courses numbered A100 or higher are transferable to the California State Universities (CSU).

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Computer Information Systems A223—JavaScript 2 (2)

Advisory: Computer Information Systems A123 and A171.

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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Computer Information Systems A224—ASP.NET Programming (4)

Advisory: Computer Science A140 or A142.

Developing, debugging, and deploying web applications using Active Server Pages .NET (ASP .NET), Visual Basic .NET, and C. Topics include ASP .NET events, controls, WebForms, data validation, databases, and security. Provides preparation for students seeking Microsoft Certified Technology Specialist (MCTS) certification. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A231—Microsoft Word 2 (2)

Advisory: Computer Information Systems A131.

Advanced course for Microsoft Word. Course intended to improve document processing skills using Microsoft Word. Topics cover organizing and personalizing data, enhancing, automation, 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 pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A232—Digital Video for Business: Adobe Premiere Pro (3)

Advisory: Computer Information Systems A100.

Using Adobe Premiere Pro, Photoshop and After Effects students will acquire practical and current knowledge to acquire, modify and implement digital video, audio, multimedia and graphics for business, educational personal use. Includes: video, audio and digital acquisition methods, hardware and software evaluation and output to varied media. May be taken for grades or on a pass-no pass basis. Two and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

Computer Information Systems A234—Excel 2 (2)

Advisory: Computer Information Systems A134 or Business A134.

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. Provides preparation for students seeking Microsoft Office Specialist (MOS) certification. Same as Business A234. Students completing Computer Information Systems A234 may not receive credit for Business A234. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Information Systems A260—Convergence Technologies (3)

Advisory: Computer Information Systems A110.

A study of telecommunications convergent technologies including telephone, LAN, WAN, wireless, voice, video, and internet protocol. Introduces the student to Voice, Video and Integrated data (VID) over IP networks to provide seamless and secure communications solutions to business and home technology needs. This includes discussions on interoperability methods and techniques to integrate disparate systems and technologies, and includes people skills development. This course covers the Computing Technology Industry Association (CompTIA) Convergence+ content and provides preparation for students seeking the Convergence+ Certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A261—Fundamentals of Wireless Networking (3)

Advisory: Computer Information Systems A197 and A198.

This course provides a complete foundation of knowledge for entering into or advancing in the wireless networking industry. Students will learn to design and construct wireless networking infrastructures, interoperate with other wireless networks, and design and build a wireless antenna. By using the designs and best practices learned in this course students will be able to implement a secure wireless network. This course covers Cisco's Wireless LAN Certification content and provides preparation for students seeking a Cisco Wireless certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A262—Fundamentals of Voice over IP Protocols (3)

Advisory: Computer Information Systems A260.

An introduction to Voice over IP (VoIP). Topics include VoIP architecture, components and functionality. Additional focus will be given to VoIP signaling, call control, voice dial plans, configuring voice interfaces and dial-peers, and implementing quality of service technologies in a VoIP environment. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A263—Home Technology Integration (3)

Advisory: Computer Information Systems A110 and Computer Information Systems A191 or A197.

This course provides students with the competency needed to install, integrate and troubleshoot automated residential sub-systems. This course covers technologies such as home security, audio/video, computer networks, electrical and structured wiring, cable/satellite, broadband and telecommunications. This course may also be offered

online. May be taken for grades or on a pass-no pass basis. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

Computer Information Systems A265—Enterprise Router Configurations 1 (3.0)

Advisory: Computer Information Systems A198.

The course focuses on advanced installation, configuration, and troubleshooting routers. Student will be introduced to routing protocols using Juniper Networks routing platforms. Students develop real-world case studies. Significant time will be allocated for hands-on experience. Provides preparation for students seeking Juniper certification. This course may be offered online. **Transfer Credit: CSU.**

Computer Information Systems A266—Enterprise Router Configurations 2 (3.0)

Advisory: Computer Information Systems A265.

This course provides students with advanced knowledge and skills necessary to use routers to meet their networks' requirements. It focuses specifically on advanced configurations commonly used in the enterprise environment. Provides preparation for students seeking Juniper certification. This course may also be offered online. **Transfer Credit: CSU.**

Computer Information Systems A270—Small/ Home Office: Case Study 1 (3.0)

Advisory: Computer Information Systems A191 or A260, A261, and A263.

Challenges students to apply network concepts learned in previous courses to a case-study based problem in Small Office / Home Office environments. Includes various responsibilities and tasks required for a service engineer to design and execute a successful implementation. Prepares individuals for careers as a Network Engineer in the IT industry. This course may also be offered online. **Transfer Credit: CSU.**

Computer Information Systems A280—Information and Storage Management (3)

Advisory: Computer Information Systems A110 and A260 or A191.

The course provides a comprehensive introduction to information storage technology which enables students to make more informed decisions in an increasingly complex IT environment. It builds a strong understanding of underlying storage technologies and prepares Student to learn advanced concepts, technologies and products. This course may also be offered online. **Transfer Credit: CSU.**

COMPUTER SCIENCE

Computer Science A101—Introduction to Programming (2.0)

This course introduces students to the fundamental concepts and techniques of programming. The course is designed to teach basic programming skills necessary to design and implement simple applications. Topics include basic types, selection statements, conditional loops, arrays, methods, and debugging. The course may be taught in Java or C++. **Transfer Credit: CSU.**

Computer Science A140—Introduction to C#.NET Programming (4)

Advisory: Computer Information Systems A100 or A111.

Provides students with a background in the object-oriented approach of the C#.NET language. Emphasis is on variables, 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 pass-no pass basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

Computer Science A142—Introduction to Visual Basic.NET Programming (4)

Advisory: Computer Information Systems A100 or A111.

An object-oriented approach to the Visual Basic .NET language with an emphasis programming fundamentals: variables, expressions, methods, control structures, arrays, objects, classes, file I/O, database, Windows and Web Forms. Provides preparation for students Microsoft certification. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

Computer Science A150—C++ Programming Language 1 (4)

Prerequisite: Computer Science A115 or A140 or A142 or A170 or A270 or Engineering A270.

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, vectors, inheritance, object-oriented design and recursion. May be taken for grades or on a pass-no pass basis. Three and one-half hours lecture, one and one-half hours discussion. **Transfer Credit: CSU; UC.**

Computer Science A152—Developing Windows Applications with .NET (4)

Advisory: Computer Science A140 or A142.

Create Windows applications using Visual Studio .NET, 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 certification. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

Computer Science A170—Java Programming 1 (4)

Advisory: Computer Information Systems A100 or A111.

A beginning course in the Java programming language that will enable students to create Java applications and applets using the Java Development Kit (JDK). Emphasis will be placed on object-oriented programming techniques, including polymorphism, inheritance, and the use of the abstract window toolkit (AWT) components. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

Computer Science A200—Data Structures (4)

Prerequisite: Computer Science A250.

A study of data abstraction and algorithm analysis. Data structures include lists, stacks, queues, trees, tables, and graphs. Algorithms 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. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Computer Science A216—Computer Architecture (4)

Prerequisite: Computer Science A115 or A150 or A170.

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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Computer Science A220—Software Engineering (4)

Advisory: Computer Science A200.

Introduction to the concepts, methods, and current practice of software engineering. Study the lifecycle of a software system. Employ engineering methods, processes, techniques, and measurement. Use of tools to manage software development. Project work is required to illustrating the various elements. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Computer Science A250—C++ Programming Language 2 (4)

Prerequisite: Computer Science A150.

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 algorithm and iterators, GUI relational database and functional programming. May be taken for grades or on a pass-no pass basis. Three and one-half hours lecture, one and one-half hours discussion. **Transfer Credit: CSU; UC.**

Computer Science A252—.NET XML Web Services and Components (4)

Advisory: Computer Science A140 or A142.

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 Technology Specialist (MCTS) certification. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Computer Science A265—Theories of Computation (1)

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. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU; UC.**

Computer Science A272—Java Programming 2 (4)

Prerequisite: Computer Science A170.

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 pass-no pass basis. Four hours. **Transfer Credit:** CSU.

Computer Science A280—Current Topics in Computing (1-4)

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 pass-no pass basis. This course may be taken four times. One to four hours lecture, 0-three hours non-lecture. **Transfer Credit:** CSU.

CONSTRUCTION TECHNOLOGY

Construction Technology A114—Cabinet Making (4)

Introduction to wood as a building material. Introduction to basic wood and machine tools to bring forth the structural and visual potential of the material. The basic skill set includes two-dimensional design and drawing concept development, furniture history, and studio practices. Two items are p.m. selected by the staff as a platform for skill mastery demonstration. This course may be taken four times. Three hours lecture, three hours non-lecture. **Transfer Credit:** CSU.

Construction Technology A116—Furniture Making and Design (4)

The basic rules of furniture design and production 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. Same as Art A116. Students completing Construction A116 may not receive credit for Art A116. This course may be taken four times. Three hours lecture, three hours non-lecture. **Transfer Credit:** CSU.

Construction Technology A154—Residential Drywall & Taping (1.5)

The study of various aspects of interior drywall, including layout and installation of drywall, cornerbead and bullnose trim. Students will learn how to estimate drywall projects. They will tape the entire interior of a house using professional tools such as bazooka's, 7 & 12 inch boxes, corner angles and corner finishers, mud runners and hand tools, texture application using a 10 gallon texture sprayer and smaller hoppers. Students will apply several different textures such as knockdown, orange peel, splatter and roller finish. Patch and drywall repair to match existing finishes. **Transfer Credit:** CSU.

Construction Technology A154—Residential Drywall & Taping (1.5)

The study of various aspects of interior drywall, including layout and installation of drywall, cornerbead and bullnose trim. Students will learn how to estimate drywall projects. They will tape the entire interior of a house using professional tools such as bazooka's, 7 & 12 inch boxes, corner angles and corner finishers, mud runners and hand tools, texture application using a 10 gallon texture sprayer and

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smaller hoppers. Students will apply several different textures such as knockdown, orange peel, splatter and roller finish. Patch and drywall repair to match existing finishes. **Transfer Credit:** CSU.

Construction Technology A155—Structure Wiring Installation (2)

Advisory: Construction Technology A275.

Wiring for interior low voltage systems, including layout and construction methods, code requirements, both sizing and installation standards, emphasis on material conservation practices and compliance with the National Electrical Code. **Transfer Credit:** CSU.

Construction Technology A156—National Electrical Code (2)

This course is designed to provide those currently working in the electrical field with training that will keep them current with NEC standards that are updated every three years. Hours earned in this course may be applied toward the mandatory 32 hours of training required for license renewal. **Transfer Credit:** CSU.

Construction Technology A157—Photovoltaic System Installation (4)

Presents principles of Photovoltaic Systems and incorporates hands on activities for all topics. Solar Energy fundamentals and applications, electricity and safety basics, PV modules, system components, system sizing, electrical design, mechanical design and performance analysis and troubleshooting. **Transfer Credit:** CSU.

Construction Technology A161—Solar Water and Pool Heating Installation (4)

Technologies for Solar Water Heating and Solar Swimming Pool Heating for residential, commercial and agricultural applications. Solar concepts, system types and system components. Solar collector mounting, component installation, checkout and start-up procedures. Pool systems components, installation, operation, and economics. **Transfer Credit:** CSU.

Construction Technology A165—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.

Construction Technology A170—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU.

Construction Technology A180—Building Construction (5)

Advisory: Construction Technology A190 or A195 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 A185—Building Construction (5)

Advisory: Construction Technology A180 and A190 or A195.

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 A190—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 A195—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 A199—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 pass-no pass basis. This course may be taken four times. One to four hours lecture, 0-three hours non-lecture. **Transfer Credit:** CSU.

Construction Technology A210—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 A220—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 A225—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 A225. Students completing Construction Technology A225 may not receive credit for Architectural Technology A225. Three hours. **Transfer Credit: CSU.**

Construction Technology A230—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 A235—Contractor’s Business Practice (3)

Fundamentals of the construction industry; terminology and procedures; an overview of its trades, skills, and processes. Three hours. **Transfer Credit: CSU.**

Construction Technology A240—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 A250—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 A252—Business Law for Contractors (1.5)

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 A255—Construction Finance (3)

Basic residential, 1-4 units, real estate development and mortgage-backed financing concepts for construction financing and residential real estate. Understanding step-by-step process of analyzing development opportunities and matching different financing sources to the project. Development of financials, understanding the loan process, and gaining loan commitment. Three hours. **Transfer Credit: CSU.**

Construction Technology A260—Masonry Construction (3)

Covers masonry history, employment, tools, materials, construction and blueprint reading with estimating, construction of walls, paving, veneering, tile, arches, 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 A265—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 A266—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 A270—Contractor’s License Law (1.5)

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. This course may be taken four times. Three hours. **Transfer Credit: CSU.**

Construction Technology A275—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 A285—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 A290—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

CONTRACT STUDIES

(See Admission and Academic Information Section)

COOPERATIVE WORK EXPERIENCE

(See Internship Academy)

COUNSELING

Counseling A100—Introduction to College (1)

Introduces new students to college services and facilities, academic policies and various segments of higher education in California. Includes time management, study skills, and academic planning. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Counseling A101—New Horizons for Men and Women (1)

An orientation course designed to assist adults re-entering academic life. Orientation to O.C.C. and higher education will be offered. Topics will include career development, career change, study skills, time management, life transitions, job skills, self-esteem, assertion, and communication skills. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Counseling A102—Becoming a Master Student (3)

This is a course designed to integrate personal growth, critical and creative thinking, problem solving and academic and career success. Topics include study techniques, orientation to higher education and resources, life skills, academic planning, and personal development. For all students wishing to improve their success in college. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Counseling A109—Developing and Understanding Happiness (3)

Study of current research and the practical application of research to attain sustainable increases in well-being in order to live a fulfilling life. Will explore such questions as: What is happiness? How do we measure it? What is the evolutionary significance of positive emotion? Topics include the role of happiness, love, spirituality, relationships, forgiveness, and mindfulness. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Counseling A110—Applied Stress Management (2)

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 pass-no pass basis only. Four hours. **Transfer Credit: CSU.**

Counseling A120—Career Planning (2)

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, to evaluate occupational choices. This course may also be offered online. Offered on a pass-no pass basis only. Two or four hours. **Transfer Credit: CSU.**

Counseling A135—Principles of Effective Parenting (3)

Designed for students who are interested in promoting healthy functioning and improving parenting skills. The course focuses on developing healthier interpersonal relationships that ultimately increase self-awareness and self-esteem which are essential to personal success. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Counseling A199—Topics in Counseling (.5-3)

Present, discuss, and study personal development issues. Introduce student to campus resources. Topics will change each semester. Offered on a pass-no pass basis only. This course may be taken four times. Three to nine hours. **Transfer Credit: CSU.**

CULINARY ARTS

Culinary Arts A100—Introduction to the Hospitality Industry (3)

Overview of the hospitality industry, its history and inter-relationships 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 A100 and Hospitality, Travel & Tourism A100. Students completing Culinary Arts A100 may not receive credit for Food Service Management A100 or Hospitality, Travel & Tourism A100. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Culinary Arts A120—Culinary Principles 1 (3)

Prerequisite: Food Service Management A160, 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 A122—Culinary Principles 2 (3)

Prerequisite: Culinary Arts A120.

Focus on the basic cooking methods as they apply to the 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 and achieving proper flavor through the correct application of the principles and processes of modern cookery will be practiced. High standards of professionalism, sanitation, and proper work habits will also 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.**

Culinary Arts A124—Principles of Baking 1 (2)

Prerequisite: Food Service Management A160, 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 A126—Principles of Baking 2 (2)

Prerequisite: Culinary Arts A124.

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 A149—Pantry (2)

Prerequisite: Food Service Management A160, 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 A150—Principles of Quantity Food Preparation (4)

Prerequisite: Food Service Management A160, or concurrent enrollment.

The fundamentals of food preparation, and application of these principles to quantity food production. Emphasis is placed on the use of quantity food preparation equipment, work simplification, and standardized production. Not required for Culinary Arts students. Hospitality dress standards and TB clearance required. Two hours lecture, six hour laboratory. **Transfer Credit: CSU.**

Culinary Arts A199—Current Issues in Culinary Arts (.5-1.5) (1-8 week 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, management. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to nine hours. **Transfer Credit: CSU.**

Culinary Arts A200—Garde Manger 1 (2)

Prerequisite: Food Service Management A160, or concurrent enrollment, and Culinary Arts A149.

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 A226—Principles of Pastry Arts (3)

Prerequisite: Culinary Arts A126 and A236 or concurrent enrollment.

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 A236—Directed Practice for Baking and Pastry (2)

Prerequisite: Food Service Management A160 and Culinary Arts A124.

Advisory: Culinary Arts A126.

A directed opportunity for on the job baking and pastry training which 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 A237—Directed Practice for Baking & Pastry 2 (2)

Prerequisite: Food Service Management 160, Culinary Arts 124 and A236

Advisory: Culinary Arts A126.

A directed opportunity for on-the-job baking and pastry training. 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. This course may be repeated two times. **Transfer Credit: CSU.**

Culinary Arts A245—Culinary Principles 3 (3)

Prerequisite: Culinary Arts A122, A124, and A149.

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 A255—Garde Manger 2 (2)

Prerequisite: Culinary Arts A200.

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 also 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 A265—Ala Minute Continental Cooking (2)

Prerequisite: Culinary Arts A122, A124, and A149.

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 A101—Modern Dance 1 (.5-2)

Offers instruction in movement vocabulary, and technical skills necessary to prepare the body as an instrument of expression in 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 the beginning level. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A102—Modern 2 (.5-2)

Advisory: Intermediate level modern dance technique. This advisory 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 pass-no pass basis. This course may be taken four times. One hour lecture, three hours activity. **Transfer Credit: CSU; UC.**

Dance A106—Strength and Stretch (.5-2)

Strength and flexibility exercises and their application to dance technique will be selected to target major muscle groups that need 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. Also applicable to any sport. This course may be taken two times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A107—Conditioning for Dance (.5-2)

A program combining skills from dance and exercise designed to improve alignments, strength, flexibility, coordination, balance and endurance for greater technical ability in dance and other athletic studies. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A108—Pilates Mat Work (.5-2)

A course in alignment and correctives work based on concepts and exercises developed by Joseph H. Pilates. The focus is on mat work exercises for improved body alignment, strength, flexibility, control, coordination, and breathing. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A110—Ballet 1 (.5-2)

Introduces and develops 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, in center floor and traveling patterns. Instruction at the beginning level. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A111—Ballet 2 (.5-2)

Introduces and develops 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, in center floor and traveling patterns. Instruction is at the intermediate level. This course may be taken four times. **Transfer Credit: CSU.**

Dance A115—Yoga for Dancers (.5-2)

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 pass-no pass basis. This course may be taken three times. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A116—Latin Dance Styles (.5-2)

This course is designed to teach Latin dance styles, including the following dances: cha-cha, merengue, 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 pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A117—American Social Dance Styles (.5-2)

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 pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A118—Dance Workout for the Maturing Body (.5-2)

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 pass-no pass basis. This course may be taken two times. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A119—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Dance A120—Jazz Dance 1 (.5-2)

A technique course in the study of various jazz styles. Emphasizes the use of energy, rhythm, improvisation while emphasizing body control, alignment, use of weight changes and quality within a jazz dance movement vocabulary. Instruction at the beginning level. Students should be prepared to participate at the first class meeting. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A121—JAZZ DANCE 2 (.5-2)

A technique course in the study of various jazz styles. Emphasizes the use of energy, rhythm, improvisation while emphasizing body control, alignment, use of weight changes and quality within a jazz dance movement vocabulary. Instruction at the intermediate level. May be taken for grades or on a pass-no pass basis. This course may be taken four times. **Transfer Credit: CSU.**

Dance A121—Jazz Dance 2 (.5-2)

A technique course in the study of various jazz styles. Emphasizes the use of energy, rhythm, improvisation while emphasizing body control, alignment, use of weight changes and quality within a jazz dance movement vocabulary. Instruction at the intermediate level. May be taken for grades or on a pass-no pass basis. This course may be taken four times. **Transfer Credit: CSU.**

Dance A125—Tap 1 (.5-2)

Tap dance techniques based on the style known as rhythm tap emphasizing fundamental skills and rhythms, time steps, flash footwork, short combinations, and styling. Instruction at the beginning level. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A126—Tap 2 (.5-2.0)

Tap dance techniques based on the style known as rhythm tap emphasizing fundamental skills and rhythms, time steps, flash footwork, short combinations, and styling. Instruction at the intermediate level. This course may be taken four times. Course may be taken for grades or on a pass-no pass basis. **Transfer Credit: CSU.**

Dance A128—Pilates Apparatus and Mat Work (.5-2)

A course emphasizing alignment and correctives work based on exercises and concepts developed by Joseph H. Pilates using apparatus and mat work. Focus is on improved body alignment, strength, flexibility, control, coordination, and breathing. This course may be taken four times. .25-1.0 lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A129—Pilates Methodology (2)

Prerequisite: Intermediate to advanced level skills in Pilates technique. This prerequisite will be validated during the first week of the course.

Designed for Pilates students to learn how to teach classes in Pilates techniques and dance conditioning for adults or teens in a variety of settings. This class covers assessment, goal setting, lesson plans, communication, cueing, precautions, and modifications for Pilate's clients. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two hours lecture, two hours activity. **Transfer Credit: CSU.**

Dance A130—Mid-Eastern Dance 1 (.5-2)

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 pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A133—Introduction to World Dance (.5-2)

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 the selected dances. May be taken for grades or on a pass-no pass basis. This course may be taken two times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

All courses numbered A100 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 A135—Flamenco Dance 1 (.5-2)

A technique course in the study of various dance forms and rhythms in flamenco dance. Emphasizes on proper alignment, rhythm, footwork and arm work within a flamenco dance movement form. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A137—Classical Dance of India (.5-2)

A beginning level course that teaches the footwork, gestures, movement, music and history of Bharata Natyam dance style from Southern India. Includes lectures and field trips to introduce students to Indian culture and rituals. For dancers and non-dancers. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A138—Dances of Africa (.5-2)

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 dance and song forms including polyrhythms, "call and response" (drummer/dancer/singer), 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 pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A139—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 pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A142—Folk Dance (.50-2)

Emphasis on the knowledge of folk dance and the background which shapes the origins, themes and style of the dance. Fundamental elements of dance, rhythms and information about the link between dance and its cultural background. One particular culture will be focused on each semester. Topics may include folk dances from South America, North America, Europe, the Middle East and Asia. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU.**

Dance A143—Jazz Dance 3-4 (.5-2)

Prerequisite: Successful audition. This prerequisite will be validated in class during the first week of the course.

A technique course on various jazz styles, focusing on the use of energy, rhythm, improvisation while emphasizing body control, alignment, use of weight changes and quality within a jazz dance movement vocabulary. Instruction at the high intermediate and advanced levels. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A144—Ballet 3-4 (.5-2)

Prerequisite: Successful audition. This prerequisite will be validated in class during the first week of the course.

A technique course on classical ballet, emphasizing movement skills at the barre, in center floor and traveling patterns. Instruction is at the high intermediate and advanced levels. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A145—Modern Dance 3-4 (.5-2)

Prerequisite: Successful audition. This prerequisite will be validated in class during the first week of the course.

Offers instruction in movement vocabulary and technical skills necessary to prepare the body as an instrument of expression in 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 the high intermediate and advanced levels. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A146—Tap 3-4 (.5-2)

Prerequisite: Successful audition. This prerequisite will be validated in class during the first week of the course.

Teaches tap dance techniques 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. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A147—Flamenco Dance 2 (.5-2)

Prerequisite: Successful audition. This prerequisite will be validated in class during the first week of the course.

A technique course in the study of various dance forms and rhythms in flamenco dance. Emphasizes on proper alignment, rhythm, footwork and arm work within a flamenco dance movement form at an intermediate and advanced level. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A148—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 pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Dance A149—Hip-Hop Dance (.5-2)

Instruction in the movement vocabulary and technical skills that are needed for the dance style known as Hip-Hop. Explores the use of space, energy, rhythm, and improvisation while emphasizing body control, alignment, balance, and use of weight changes. Instruction at the beginning and intermediate levels. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A150—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 pass-no pass basis. This course may be taken four times. One-half hour lecture, one and one-half hours activity. **Transfer Credit: CSU; UC.**

Dance A151—Pilates as a Profession (1)

For students planning a career in Pilates, including Pilates-related career options, and resumes, contracts, fees, insurance and other aspects of Pilates as a business. May be taken for grades or on a pass-no pass basis. One hour. **Transfer Credit: CSU.**

Dance A162—Advanced Dance Composition (3)

Prerequisite: Dance A101, A110, A120 or audition. This prerequisite will be validated in class during the first week of the course.

Advisory: Dance A150.

A composition course designed for dancers with intermediate and advanced technique levels in modern dance, ballet and jazz. This course explores dance composition elements: space, shape, time and energy, methods for crafting movement phrases and short dances, and learning about established choreographers and their work. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Dance A170—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 pass-no pass basis. Two hours. **Transfer Credit: CSU; UC.**

Dance A199—Current Dance Topics (.5-3)

Movement and lecture/discussion of topics and issues of current interest in dance. May be repeated with different topics. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .3-1.8 hours lecture, .7-4.2 hours non-lecture. **Transfer Credit: CSU.**

Dance A200—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Dance A201—Rehearsal and Performance (1)

Structured dance rehearsal time culminating in performance/performances. All students in the student dance concert must be enrolled in this class. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three hours lecture, nine hours activity. **Transfer Credit: CSU; UC.**

Dance A203—Performing Dance Ensemble (3)

Prerequisite: Eligibility based on successful audition.

Corequisite: Dance A101 or A110 or A120 or A125.

Advisory: Intermediate dance skills in jazz or ballet or modern or tap or other dance forms. This advisory 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 pass-no pass basis. This course may be taken four times. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A205—Dance as a Profession Seminar (2)

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. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Dance A208—Advanced Pilates Seminar (1.5-3)

Prerequisite: Intermediate level skills in Pilates mat and reformer work. This prerequisite will be validated in class during the first week of the course.

Advisory: Dance A108.

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. May be taken for grades or on a pass-no pass basis. Six hours lecture, six hours non-lecture. **Transfer Credit: CSU; UC.**

Dance A210—Dance Methodology (3)

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.

Advisory: Dance A150 or A160.

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. Three hours lecture, one hour activity. **Transfer Credit: CSU.**

Dance A211—Repertoire (1-4)

Corequisite: Dance A137 or A143 or A144 or A145 or A146 or A147 or A148.

Advisory: 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 pass-no pass basis. This course may be taken four times. One-half to two hours lecture, one and one-half to six hours activity. **Transfer Credit: CSU; UC.**

DENTAL ASSISTING

Dental Assisting A100—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 A110—Chairside Techniques 1 (3)

Corequisite: Dental Assisting A120 and A150.

Four handed dentistry. History of the dental profession. Charting, sterilization procedures, use and maintenance of dental operatory equipment. Laboratory experience includes basic application of operative procedures. Course requires purchase of an appropriate clinical uniform and patient care safety goggles. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Dental Assisting A115—Chairside Techniques 2 (2) (14 week course)

Prerequisite: Dental Assisting A110 and A150.

Corequisite: Dental Assisting A125.

This is a continuation of Dental Assisting A110 Chairside Techniques 1 with an emphasis on dental specialties, and application of coronal polish for state certification. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Dental Assisting A120—Dental Materials (3)

Corequisite: Dental Assisting A110.

A comprehensive study of materials, including composition and characteristics. Emphasis on use of restorative dental materials and gypsum products. Lab exercises include manipulation of materials, taking impressions, pouring casts and trimming models. Construction of acrylic and metal temporaries and bleaching trays. One and one-half hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Dental Assisting A125—Expanded Functions (2) (14 week course)

Prerequisite: Dental Assisting A110 and A120.

Corequisite: Dental Assisting A115 and A165.

Emphasis on expanded functions for the registered dental assistant. Laboratory practice and preclinical evaluations, including pit and fissure sealant placements on patients. Students will practice mock written and practical examinations in preparation for state licensing board examinations. One and one-half hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Dental Assisting A130—Preventive and Community Dentistry (1)

Corequisite: Dental Assisting A150.

A study of the principles of x-ray production and physics, biological effects, radiation safety procedures, and monitoring. Film identification, processing and mounting procedures and introduction to the bitewing, bisecting, and paralleling techniques and practical application are presented. Two hours. **Transfer Credit: CSU.**

Dental Assisting A140—Dental Radiography 1 (3)

Corequisite: Dental Assisting A110 and A150.

A study of the principles of x-ray production and physics, biological effects, radiation safety procedures, and monitoring. Film identification, processing and mounting procedures and introduction to the bitewing, bisecting, and paralleling techniques and practical application are presented. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Dental Assisting A145—Dental Radiography 2 (2) (14 week course)

Prerequisite: Dental Assisting A140 and A163.

Corequisite: Dental Assisting A165.

In-depth study of bisecting and paralleling techniques employed in patient intraoral radiographs. Analysis and correction of techniques and processing errors, clinical laboratory experience exposing x-rays on patients utilizing bisecting, and paralleling techniques including film processing and mounting for various radiographic examinations. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

Dental Assisting A150—Biomedical Sciences (2)

Corequisite: Dental Assisting A110 and A160.

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. Students must purchase a uniform for this course. Two hours. **Transfer Credit: CSU.**

Dental Assisting A160—Clinical Experience 1 (1)

Corequisite: Dental Assisting A120, A130, and A140.

The first clinical rotation for the beginning dental assisting student in which the student will be assigned to a general dentistry facility. Students are required to follow the dress code standards required by the program and OSHA mandates. Offered on a pass-no pass basis only. One hour seminar, eight hours clinical. **Transfer Credit: CSU.**

Dental Assisting A163—Clinical Experience 2 (1) (2 week course)

Prerequisite: Dental Assisting A160.

The second 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 according to ADA guidelines and OSHA mandates. Offered on a pass-no pass basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

Dental Assisting A165—Clinical Experience 3 (2.5) (14 week course)

Prerequisite: Dental Assisting A163.

Corequisite: Dental Assisting A115, A145, and A175.

The third in a series of opportunities for clinical practice

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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 according to ADA guidelines and OSHA mandates. Offered on a pass-no pass basis only. One hour seminar, eight hours clinical. **Transfer Credit: CSU.**

Dental Assisting A168—Clinical Experience 4 (1) (2 week course)

Prerequisite: Dental Assisting A165.

The fourth clinical rotation in which the students will be placed in a general dentistry and/or dental specialty setting. Students are required to follow the dress code standards required by the program and OSHA mandates. Thirty-two hours weekly for two weeks. Offered on a pass-no pass basis only. Thirty-two hours clinical. **Transfer Credit: CSU.**

Dental Assisting A175—Principles of Business and Practice Management (1.5) (14 week course)

An introduction to dental office administration, including dental records and charting, HIPAA regulations, communication skills, financial management appointment scheduling, payroll, and insurance claim processing. Students will be trained to use Dentrix Dental Software program to become knowledgeable in all areas of practice management utilizing the computer. This course may also be offered online. Two hours. **Transfer Credit: CSU.**

DESIGN

Design A105—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, theater, industrial, or furniture. Emphasis on personal, educational, and professional qualifications required for entry into a design-related career. Two hours. **Transfer Credit: CSU.**

DIAGNOSTIC MEDICAL SONOGRAPHY

Diagnostic Medical Sonography A123—Sectional Anatomy for Medical Imaging (4)

Prerequisite: Biology A221.

This is a study of specific areas of the human body in serial sections. Designed for diagnostic medical sonography and radiologic imaging technology. Emphasis is on structures observable on diagnostic medical sonography, computerized tomography and related imaging studies. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A126—OB/GYN Sonography (3)

Prerequisite: Diagnostic Medical Sonography A123.

A cross-sectional anatomical and sonographic study of the female reproductive system including the nongravid pelvis as well as the gravid pelvis; includes specific study of embryology, placenta, amniotic fluid and cord, breast and neonatal brain. Topics of discussion will include appropriate laboratory tests, ultrasound scan protocols of the American Institute of Ultrasound in Medicine (AIUM) and other imaging modalities utilized in OB/GYN. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A150—Sonographic Physics and Instrumentation (4.5)

Prerequisite: Allied Health A111.

This is the study of physical principles and instrumentation of diagnostic medical sonography. It includes equipment design, instrumentation and application. Four hours lecture, two hours laboratory. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A155—Introduction to Vascular Ultrasound (2.5)

Prerequisite: Diagnostic Medical Sonography A150.

This course is an introduction to vascular ultrasound including Doppler physical principles and instrumentation. The venous system of the upper and lower extremities is emphasized this semester. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A161—Pathophysiology (3)

Prerequisite: Diagnostic Medical Sonography A123

Corequisite: Diagnostic Medical Sonography A126.

Specific study of pathology and pathophysiological mechanisms related to diagnostic medical sonography. Three hours. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A165—Introduction to Scanning Practice (3)

Prerequisite: Diagnostic Medical Sonography A150

Corequisite: Diagnostic Medical Sonography A126, A155 and A160.

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 A166—DMS Clinical Experience 1 (2)

Prerequisite: Allied Health A115

Corequisite: Diagnostic Medical Sonography A165.

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 pass-no pass basis only. Eight hours clinical. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A167—DMS Clinical Experience 2 (5) (8 week course)

Prerequisite: Diagnostic Medical Sonography A166.

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 on a pass-no pass basis only. Forty hours clinical. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A255—Advanced Vascular Ultrasound (2.5)

Prerequisite: Diagnostic Medical Sonography A155.
This is an advanced vascular course with laboratory exercises. It includes physiological arterial testing of the lower and upper extremities with pathological correlation. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A271—DMS Clinical Experience 3 (7)

Prerequisite: Diagnostic Medical Sonography A167
Corequisite: Diagnostic Medical Sonography A255 and A274.
Clinical experience in ultrasound. Equipment handling and patient management. Departmental operation and scope. Offered on a pass-no pass basis only. Thirty-two hours clinical. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A274—Abdominal Sonography (3) (8 week course)

Prerequisite: Diagnostic Medical Sonography A165.
Interpretation of normal and abnormal sonographic anatomy, comparing disease processes and identification of structures in sonographic images of the abdomen and superficial structures. Six hours. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A275—Sonographic Review (3) (8 week course)

Prerequisite: Diagnostic Medical Sonography A274.
Review of advanced scanning techniques and other ultrasound topics including physics and instrumentation. Interpretation of normal and abnormal sonography. Three hours. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A276—DMS Clinical Experience 4 (2) (4 week course)

Prerequisite: Diagnostic Medical Sonography A271.
Intermediate clinical experience. Studies in the abdomen, small parts, and pelvis. Variety of real-time equipment, anatomical pathology recognition. Offered on a pass-no pass basis only. Forty hours clinical. **Transfer Credit: CSU.**

Diagnostic Medical Sonography A281—DMS Clinical Experience 5 (9)

Prerequisite: Diagnostic Medical Sonography A276.
Advanced clinical experience in the ultrasound department practicing in a variety of Sonographic studies with emphasis on the abdomen and pelvis. Advanced recognition of pathology and scan interpretation. Offered on a pass-no pass 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 A115—Lettering and Digital Typography (4)

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 and Design majors, as well as practicing art professionals. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A117—Rapid Illustration Techniques (4)

Course expands upon freehand drawing skills. Rapid 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 art suitable for student's portfolio. Recommended for Digital Media Arts and Design majors, as well as practicing professionals. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A150—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 A151—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 A181—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 pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Digital Media Arts and Design A182—Graphic Design (4)

Prerequisite: Digital Media Arts & Design A181.
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. This course may be taken three times. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A183—Digital Prepress (4)

Prerequisite: Digital Media Arts & Design A181.
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 A190—Illustration and Computer Graphics with Adobe Illustrator 1 (4)

Advisory: Digital Media Arts & Design A181.
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 non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A193—Photography and Graphics with Photoshop 1 (4)

Advisory: Photography A120 and A125 or Digital Media Arts & Design A181.

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, image processing and manipulation techniques as well as digital camera basics. This course may be taken three times. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A195—Photography and Graphics with Photoshop 2 (4)

Advisory: Digital Media Arts & Design A193 or Photography A125.

Lectures and demonstrations to familiarize students with advanced techniques in digital photography and image manipulation. Both fine art and commercial applications are covered. This course may be taken three times. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A200—Innovative Web Design (4)

Advisory: Digital Media Arts & Design A181, A182, A193, A263, A280.

Investigates design and communication on the Internet. Primary Software: Adobe Dreamweaver (other applications as needed). Web content and website structure are explored by emphasizing strategies for the designer and the fine artist. Projects incorporate use of audio, video and animation. Concentration on Web Design, communication and experimentation. This course may be taken two times. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A262—Digital Video with Final Cut Pro (4)

Advisory: Digital Media Arts & Design A181 and Film/Video A110.

Students learn the art of combining computer generated imagery with digital video to create experimental, fine art and commercial videos as seen in music videos and on television. Students will create their own original videos on the computer using transitions, filters, alpha channels and keying effects, and digital animation. This course may be taken three times. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A263—Motion Graphics and Video Compositing with Adobe After Effects (4)

Advisory: Digital Media Arts & Design A181 and A190 or A193.

Develop skills in the art of animated graphics and digital video compositing, which are used in film and television titles and advertisements, music videos, web sites, multimedia concerts and fashion shows. Create original artwork with complex layers of graphics, video, text, photography, and audio using masking, keying, layering, transparency, effects, sweeping camera paths and 3D elements. This course may be taken three times. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

Digital Media Arts and Design A280—2D Animation (4)

Prerequisite: Digital Media Arts & Design A181.

Advisory: Art A120 and Digital Media Arts & Design A190.

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. This course may be taken three times. Two hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

Digital Media Arts and Design A281—3D Computer Graphics Animation (4)

Prerequisite: Digital Media Arts & Design A280.

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. This course may be taken two times. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

DIRECTED STUDIES

(See Admission and Academic Information Section)

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DISPLAY AND VISUAL PRESENTATION

Display and Visual Presentation A180—Introduction to Display and Visual Presentation (3)

Provides an opportunity to learn display and exhibit design for business and museum/gallery. Areas covered include trade show, hard-line product, themed design, space development for store planning, museum exhibition, advertising, and all aspects of visual presentation, to include: windows, point of purchase, websites, and packaging. Three hours lecture. **Transfer Credit: CSU.**

DRAFTING TECHNOLOGY

Drafting Technology A110—Basic Drafting Practices (4)

Prerequisite: Drafting Technology A150 or concurrent enrollment.

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 A115—Engineering Drafting Design 1 (4)

Prerequisite: Drafting Technology A110.

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. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Drafting Technology A120—Engineering Drafting Design 2 (4)

Prerequisite: Drafting Technology A115.

Containing 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. Intended for drafting majors. Engineering majors should take Drafting Technology A115. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Drafting Technology A150—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. This course may be taken two times. Three hours lecture, four hours laboratory. **Transfer Credit: CSU; UC.**

Drafting Technology A157—Computer Aided Design/Drafting--Mechanical (4)

Prerequisite: Drafting Technology A150.

Advisory: Drafting Technology A120 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. 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 computers with AutoCAD software. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Drafting Technology A158—Computer Aided Design/Drafting--Architectural (4)

Prerequisite: Drafting Technology A150.

Advisory: Architectural Technology A180 and A185.

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 architecture drawings. The course emphasizes basic high technology skills which are necessary to function as an entry level CAD operator in the field of architecture. Student's use computers with AutoCAD software. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Drafting Technology A159—Introduction to 3D CAD (4)

Prerequisite: Drafting Technology A150.

Advisory: Drafting Technology A156 or A157 or A158 or concurrent enrollment.

A basic 3-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 3-dimensional digital models and presentation drawings. This course may be taken two times. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Drafting Technology A160—Dimensioning (4)

Prerequisite: Drafting Technology A110.

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 A165—Computer Aided Drafting Software Survey (2)

An intense, fast paced overview of current industry CAD software programs for advanced CAD operators wanting to widen their knowledge and increase their versatility. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Drafting Technology A170—Mechanical Solid Modeling (3)

Advisory: Drafting Technology A115, A120, A159, Machine Technology A195, and Computer Information Systems A107.

An advanced solid modeling design course for mechanical drafters, designers, and engineers. Students will use IBM compatible computers with SolidWorks software to develop solid model parts, assemblies, drawings, and solutions to mechanical design problems. This course may be taken four times. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

EARLY CHILDHOOD

Early Childhood A100—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 pass-no pass basis only. This course may be taken four times. One hour lecture, one hour workshop activity. **Transfer Credit: CSU.**

Early Childhood A101—Parent/Toddler Workshop (1)

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 pass-no pass basis only. This course may be taken four times. One hour lecture, one and one-half hour workshop activity. **Transfer Credit: CSU.**

Early Childhood A102—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 pass-no pass basis only. This course may be taken four times. One hour lecture, two hours workshop activity. **Transfer Credit: CSU.**

Early Childhood A105—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 A126—Cross-Cultural Perspectives on Child Development (3)

Prerequisite: Human Development A180.

An overview of the different micro cultures to which students belong and the importance of understanding their own culture. Micro cultures 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 A130—Language Arts in the Preschool (3)

Prerequisite: Human Development A180 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, storytelling, finger plays, flannel stories, language centers, early writing, alphabetic and phonemic awareness. Three hours. **Transfer Credit: CSU.**

Early Childhood A131—Creativity for Children (3)

Prerequisite: Human Development A180.

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. Three hours. **Transfer Credit: CSU.**

Early Childhood A132—Science for Young Children (3)

Prerequisite: Human Development A180.

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. Three hours. **Transfer Credit: CSU.**

Early Childhood A155—Principles & Practices of Teaching Young Children (3)

Prerequisite: Human Development A180.

An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, relationships and teaching strategies in supporting all areas of development for all children. Emphasis on the value of play in supporting all areas of children's development. Three hours. **Transfer Credit: CSU.**

Early Childhood A156—Early Childhood Laboratory (2)

Prerequisite: Early Childhood A155.

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 A157—Guidance for Young Children (3)

Prerequisite: Early Childhood A155.

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 A165—Observing and Recording Child Behavior (3)

Prerequisite: Human Development A180.

This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children's success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. Three hours lecture, one hour arranged. **Transfer Credit: CSU.**

Early Childhood A174—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. May be repeated four times. **Transfer Credit: CSU.**

Early Childhood A199—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. Offered on a pass-no pass basis only. This course may be taken four times. Four to nine hours. **Transfer Credit: CSU.**

Early Childhood A200—Preschool Programs--The Curriculum (3)

Prerequisite: Early Childhood A155.

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 A201—Early Childhood Field Experience (3)

Prerequisite: Early Childhood A200, or concurrent enrollment, and Early Childhood A156.

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 and staff relationships. TB clearance required. Two hours lecture, six hours field experience. **Transfer Credit: CSU.**

Early Childhood A211—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 by the Child Development Associate credential. Approved for Head Start Program. Three hours. **Transfer Credit: CSU.**

Early Childhood A218—Infant/Toddler Curriculum (2) (12 week course)

Prerequisite: Early Childhood A220.

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 A220—Infant/Toddler Programs (3)

Prerequisite: Human Development A184.

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 the teacher in facilitating the child's growth through play. Three hours. **Transfer Credit: CSU.**

Early Childhood A221—Infant and Toddler Field Experience (3)

Prerequisite: Human Development A184 and Early Childhood A218 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 A229—School-Age Creative Activities (3)

Prerequisite: Human Development A182.

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 A230—Early Primary Curriculum: Materials and Methods (3)

Prerequisite: Human Development A182.

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 A231—School-Age Field Experience (3)

Prerequisite: Early Childhood A229.

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 A240—Inclusion of Children with Disabilities (3)

Prerequisite: Human Development A210.

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 A241—Field Experience with Children with Special Needs (3)

Prerequisite: Early Childhood A240.

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 A261—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 pass-no pass basis only. One to nine hours. **Transfer Credit: CSU.**

Early Childhood A262—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 pass-no pass basis only. One to nine hours. **Transfer Credit: CSU.**

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Early Childhood A263—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 pass-no pass basis only. One to nine hours. **Transfer Credit: CSU.**

Early Childhood A275—Early Childhood Administration--Program (3)

Prerequisite: Early Childhood A200 or A220 or A229.

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 A276—Early Childhood Management (3)

Prerequisite: Early Childhood A275.

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 A277—Adult Supervision in Early Childhood Programs (2) (12 week course)

Prerequisite: Early Childhood A200 or A220 or A229 or A240.

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 A100—Environment and Man (3)

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. 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 A110—Island Ecology (3)

The principles of ecology will be applied to islands of the world, discussing both terrestrial and marine ecology. Tropical and temperate islands will be used as examples

ranging from California's Channel Islands to islands in other ocean areas of the world. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Ecology A121—Marine Intertidal Ecology (1)

Ecology of the marine intertidal environment of southern California. This is a field oriented laboratory experience for non-majors. May be taken for grades or on a pass-no pass basis. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

Ecology A124—Ecology of the Gray Whale (1)

Ecology and natural history of the California Gray Whale and the Orange County Whale Watch program. Completion qualifies students as docents on whale watching boats. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

ECONOMICS

Economics A100—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Economics A110—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. 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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Economics A180—Macroeconomics (3)

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 A185—Microeconomics (3)

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 A125)

Education A102—Teaching in a 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 pass-no pass basis. One hour lecture, ten hours arranged fieldwork. **Transfer Credit: CSU; UC.**

Education A200—The Teaching Profession (3)

Prerequisite: Eligibility for English A100.

Advisory: Education A102.

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 pass-no pass basis. Two hours lecture, forty hours arranged fieldwork. **Transfer Credit: CSU; UC.**

ELECTRONIC MEDIA

(See Digital Media Arts)

ELECTRONICS TECHNOLOGY

Electronics Technology A047—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 A101—Robotics 1 Mechanics & Design (4)

Corequisite: Electronics Technology A170.

Advisory: High School Physics, Electronics Technology A047 or concurrent enrollment.

Design a robot to tournament specifications. Analyze, diagnose, modify, calibrate document the prototype. Project-based hands-on learning strategies focus on mechanical structures in robot design and function and the physical laws that govern design including but not limited to: braces, beams, brackets, motors, gears, wheels, transmitter, receiver, etc. This course may be taken two times. Four hours. **Transfer Credit: CSU.**

Electronics Technology A135—Introduction to Digital Logic (3.5)

Prerequisite: Electronics Technology A047 or concurrent enrollment.

Advisory: Electronics Technology A170.

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 A140—Technical Electronics (3)

Advisory: Electronics Technology A170.

An introduction to electricity and electronics for non-technicians. Vocabulary, power, voltage, current, resistance, safety, test equipment, circuits and devices are studied. Hands-on, interactive, project based: you will build, test, and troubleshoot circuits and devices. You will learn how to read documentation commonly found in industry i.e. schematics, specifications, assembly and test procedures. **Transfer Credit: CSU.**

Electronics Technology A146—Introduction to Basic Computer Installation (3)

This course will teach the student how to connect peripheral devices (monitor, printer, modem, camera) to a PC, upgrade and build computers with the hardware and software provided in class, and troubleshoot common problems with peripherals. The student will prepare a rescue kit for their home computer. This course may be taken four times. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Electronics Technology A150—D. C. Circuits (3)

Prerequisite: Electronics Technology A047 or concurrent enrollment.

Advisory: Electronics Technology A170.

Principles of Direct Current (DC) circuits for technicians and engineers. Build, measure, test, analyze, and troubleshoot: series, parallel and complex circuits. An in-depth study of: vocabulary, power, voltage, current, resistance, safety, test equipment, circuits and devices, and circuit analysis methods. Students will build, test, analyze and troubleshoot complex circuits and devices. In addition, students will learn how to read documentation commonly found in industry i.e., schematics, specifications, assembly and test procedures. **Transfer Credit: CSU.**

Electronics Technology A155—A.C. Circuits (3)

Prerequisite: Electronics Technology A047 or concurrent enrollment.

Advisory: Electronics Technology A170.

Principles of Amplitude Changing (AC) circuits for technicians and engineers. An in-depth study of Alternating Current and Amplitude Changing circuits: vocabulary, power, voltage, current, impedance, phase shift, frequency, harmonics, induction capacitance, safety, test equipment, circuits, devices, and circuit analysis methods. Students will build, test, analyze and troubleshoot complex circuits and devices. In addition, students will read documentation commonly found in industry i.e., schematics, specifications, assembly and test procedures. **Transfer Credit: CSU.**

Electronics Technology A170—Electronics Laboratory (1)

Advisory: Recommend concurrent enrollment in Electronics Technology courses.

Laboratory experience supplements, complements, or fulfills the laboratory requirement for courses in the Electronics Technology Program. Assemble, test calibrate, and troubleshoot electronic, electro-mechanical, instrumentation, robotics, and automation systems. Advanced students will design and construct Robots to compete in Robotic Competitions and/or other Service Learning activities. This course may be taken four times. Three hours laboratory. **Transfer Credit: CSU.**

Electronics Technology A201—Robotics 2 Motors, Transports & Motor Control (4)

Prerequisite: Electronics Technology A101 and A155.

Corequisite: Electronics Technology A170.

Advisory: High School Physics.

Design a robot drive and transport mechanism to compete, according to tournament criteria, against other teams. Analyze and modify the invention to improve original design. Identify, demonstrate an understanding of, and diagnose: motors, transport mechanisms, motor control systems and variable speed drives in robot and automation designs. This course may be taken two times. Four hours. **Transfer Credit: CSU.**

Electronics Technology A215—Communications Systems (3)

Prerequisite: Electronics Technology A160 or Aviation Maintenance Technology A182.

A study of basic communications systems, including AM, FM, television, radar, antennas, and transmission lines. Three hours. **Transfer Credit: CSU.**

Electronics Technology A245—Applied Digital Circuits (4)

Prerequisite: Electronics Technology A135.

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.**

Electronics Technology A246—Computer Installation and Repair (3)

Prerequisite: Electronics Technology A135 and A155.

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 A253—Automation I Programmable Logic Controllers (4)

Prerequisite: Electronics Technology A135 and A155.

Corequisite: Electronics Technology A170.

Introduction to Programmable Logic Control (PLC) operate, calibrate, diagnose, and tune open and closed loop systems. Hands-on project-based learning: analyze programs, design and build PLC systems using various input and output devices: ultra-sound, infra-red, temperature, proximity, limit switches, linear transducers, electro-mechanical and solid-state relays, transistors, thyristors, linear actuators and motors. This course may be taken two times. Four hours. **Transfer Credit: CSU.**

Electronics Technology A260—Automation II Semiconductor Motor Control Circuits (4)

Prerequisite: Electronics Technology A150 and A155.

Corequisite: Electronics Technology A170.

Diagnose semiconductor circuits: power supplies, amplifiers, active filters, oscillators, solid state motor control, phase inverters, Variable Speed Drives (VSD). Four hours. **Transfer Credit: CSU.**

Electronics Technology A289—Internship (2)

Prerequisite: Electronics Technology A135 and A155.

Corequisite: Electronics Technology A170.

A supervised internship, as an assembler or technician, with scope of work related to classroom-based instruction previously completed. The student will research companies and prepare for internship interview. Course includes a directed study of the worksite environment, assigned duties, techniques and skills required for job performance. Student will complete objectives specified by the employer. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, four hours non-lecture. **Transfer Credit:** CSU.

Electronics Technology A290—Electronic Troubleshooting (3)

Prerequisite: Electronics Technology A135 and A170.

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 A100—Emergency Medical Care (3)

First responder (advanced first aid and cardiopulmonary resuscitation). Upon completion, a First Responder card from the Emergency Care and Safety Institute and a Healthcare Provider CPR card from the American Heart Association will be issued. Three hours. **Transfer Credit:** CSU.

Emergency Medical Technology A145—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 A150—EMT-1/Basic (6)

Prerequisite: American Heart Association Healthcare Provider CPR. This prerequisite will be validated in class during the first week of the course.

Corequisite: Emergency Medical Technology A151.

Advisory: Emergency Medical Technology A100.

An overview of the EMT-I/Basic roles and responsibilities including the evaluation and treatment of medical and trauma 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 A151—EMT-1 Clinical Internship (.5)

Corequisite: Emergency Medical Technology A150.

Application and integration of skills and knowledge gained from EMT A150 in the emergency department of an acute

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hospital and on a Basic Life Support ambulance unit. Offered on a pass-no pass basis only. One hour clinical. **Transfer Credit:** CSU.

Emergency Medical Technology A160—EMT-1 Recertification (1) (4 week course)

Prerequisite: Current EMT-1(Basic) certificate or certificate which has not expired by more than two years.

New policies and procedures including the latest CPR techniques and procedures for new equipment, updates to the EMT-B's scope of practice within Orange County, the State and Federal guidelines, and review of the required EMT-Basic curriculum to the most up-to-date model. Provides 24 hours of Continuing Education as "refresher course." No skills testing provided. Offered on a pass-no pass basis only. This course may be taken four times. Seven hours. **Transfer Credit:** CSU.

Emergency Medical Technology A180—Orange County EMT Accreditation (.5)

Corequisite: Concurrent enrollment in EMT 150 or Current California EMT certificate or certificate which has not expired by more than 2 years or presently.

Training and skills validation of the Orange County EMT Expanded Scope of Practice procedures with focus on the EMT's responsibility in the pre-hospital setting. "Orange County EMT Expanded Scope of Practice Accreditation" certificate will be awarded upon completion, which is required to practice in Orange County. 12 hours of EMT CE offered. **Transfer Credit:** CSU.

ENGINEERING

Engineering A180—Engineering Graphics (3)

Prerequisite: Mathematics A170, 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 A280—Statics (3)

Prerequisite: Mathematics A185 or A185H and Physics A280.

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 A285—Engineering Circuits (4)

Prerequisite: Mathematics A185 or A185H and Physics A280.

A course in analysis of electric circuits, including DC circuits, network theorems, energy sources, transient analysis, sinusoidal analysis, phasors, AC power, 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 A005—Basic Reading Skills (3)

A sequence of reading lessons that will target reading rate growth, for students in the areas of vocabulary development and comprehension improvement. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Three hours. Not applicable to AA or AS degree.

English A050—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 pass-no pass basis. Three hours. Not applicable to AA or AS degree.

English A057—Spelling Techniques (1.5)

Use a dictionary pronunciation key. Learn phonics sounds and patterns as well as prefix-root-suffix combinations and homonym discrimination. Apply rules and memory strategies to increase spelling mastery. May be taken for grades or on a pass-no pass basis. Three hours. Not applicable to AA or AS degree.

English A060—Grammar (1.5)

Learn the fundamentals of standard English grammar usage, including sentence structure, part of speech, agreement, punctuation, and word choice. Apply concepts to written sentences and paragraphs. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Three hours. Not applicable to AA or AS degree.

English A061—Vocabulary Building 1 (1.5)

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 pass-no pass basis. Three hours. Not applicable to AA or AS degree.

Composition and Related Studies

English A098—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 pass-no pass basis. Four hours. Not applicable to AA or AS degree.

English A099—Fundamentals of Composition (3)

Prerequisite: English A098 with a grade of 'C' or better OR appropriate English placement score.

Apply 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. Write structurally varied and grammatically correct sentences and clearly organized, appropriately detailed paragraphs leading to frequent practice in the construction of the expository essay. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours.

English A100—Freshman Composition (3)

Prerequisite: English A099 or ESL A199 with a grade of 'C' or better OR appropriate English placement score.

Instruction and practice in essay writing, including using analytical thinking, choosing a thesis, assembling and organizing supporting evidence, and developing a clear tone and appropriate style. Includes reading and analysis of published essays, practice in research, and production of a research paper. This course may also be offered online. Four hours. **Transfer Credit: CSU; UC.**

English A101—Critical Reasoning, Reading, and Writing Through Literature (3)

Prerequisite: English A100 with grade of 'C' or better.

Read, analyze, and write on literature applying critical thinking skills and research. Formulate and compose written arguments. Recognize logical fallacies, rhetorical strategies, implicit meaning, and use inductive/deductive reasoning. This course may also be offered online. Four hours. **Transfer Credit: CSU; UC.**

English A101H—Honors Critical Reasoning, Reading, and Writing Through Literature (3)

Prerequisite: English A100 with grade of 'C' or better.

Read, analyze, and write on literature applying critical thinking skills and research. Formulate and compose written arguments. Recognize logical fallacies, rhetorical strategies, implicit meaning, and use inductive/deductive reasoning. This course may also be offered online. Four hours. **Transfer Credit: CSU; UC.**

English A102—Critical Reasoning, Reading, and Writing Through Nonfiction (3)

Prerequisite: English A100 with grade of 'C' or better.

Read, analyze and write on works of non-fiction applying critical thinking skills and research. Formulate and compose written arguments. Recognize logical fallacies, rhetorical strategies, implicit meaning, and use inductive and deductive reasoning. This course may also be offered online. Four hours. **Transfer Credit: CSU; UC.**

English A102H—Honors Critical Reasoning, Reading, and Writing Through Nonfiction (3)

Prerequisite: English A100 with grade of 'C' or better.

Read, analyze and write on works of non-fiction applying critical thinking skills and research. Formulate and compose written arguments. Recognize logical fallacies, rhetorical strategies, implicit meaning, and use inductive and deductive reasoning. Four hours. **Transfer Credit: CSU; UC.**

English A105—Technical Report Writing (3)

Advisory: English A099.

Designed to develop skills in the kinds of technical report writing used in industry, emphasizing structure. Recommended for students in occupational programs and for students exploring technical writing as a career. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

English A109—Critical Reasoning and Writing for Science and Technology (3)

Prerequisite: English A100.

Read, analyze, and write on works about science and technology applying critical thinking skills and research. Formulate and compose written arguments. Recognize logical fallacies, rhetorical strategies, and technical writing formats. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

English A117—Feature Writing (3)

Prerequisite: Journalism A110 and English A100 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. Same as Journalism A117. Students completing English A117 may not receive credit for Journalism A117. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three hours. **Transfer Credit: CSU.**

Creative Writing

English A119—Introduction to Creative Writing (3)

Prerequisite: English A099 or English as a Second Language A199 with a grade of 'C' or better OR appropriate English placement score.

Advisory: English A100.

Familiarizes students with writing techniques in fiction, poetry, and scriptwriting through close reading in all three genres, careful text analysis with an emphasis on methods, and extensive writing practice. Students will produce original work in all three genres, which they will revise based on detailed responses from instructor and peers. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

English A121—Short Story Workshop (3)

Prerequisite: English A099 or English as a Second Language A199 with a grade of 'C' or better OR appropriate English placement score.

Advisory: English A100 and A119.

A workshop class in short fiction, centered on discussing and evaluating students' original work. Includes practical strategies for generating strong prose, based on techniques of published writers. For beginning, intermediate, or advanced writers. Students will be given the opportunity to submit work for publication in the Orange Coast Review. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Four hours. **Transfer Credit: CSU; UC.**

English A122—Novel Workshop (3)

Prerequisite: English A099 or English as a Second Language A199 with a grade of 'C' or better OR appropriate English placement score.

Advisory: English A100 and A119.

A course focusing on student production in the novel form with emphasis on discussion, criticism and evaluation of student novel fragments or completed manuscripts. Designed for beginning, intermediate, and advanced writers seeking practice and guidance in the novel craft. Discussion, criticism, and evaluation of student work. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Four hours lecture. **Transfer Credit: CSU; UC.**

English A126—Poetry Workshop (3)

Prerequisite: English A099 or English as a Second Language A199 with a grade of 'C' or better OR appropriate English placement score.

Advisory: English A100 and A119.

Emphasizing student writing in poetic forms. Includes lectures and discussions on the theory and practice of poetry, focuses primarily on the discussion and evaluation of student work. Designed for beginning, intermediate and advanced writers seeking practice and guidance in poetry writing. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three hours. **Transfer Credit: CSU; UC.**

English A127—Scriptwriting (3)

Prerequisite: English A099 or English as a Second Language A199 with a grade of 'C' or better or appropriate English placement score.

Advisory: English A100 and A119.

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 pass-no pass basis. This course may be taken four times. Four hours. **Transfer Credit: CSU; UC.**

English A131—Writing Reviews and Criticism (3)

Advisory: English A100.

Techniques and principles of writing reviews and criticism. Includes studying the works of noted critics and involves attendance and note taking at concerts, plays, 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 pass-no pass basis. Two hours lecture, three hours arranged. **Transfer Credit: CSU.**

English A141—The Bible As Literature (3)

Advisory: English A100.

Read, analyze, and write on important Biblical works from both the Old and New Testament canon. Explore the historical, cultural, philosophical, and aesthetic implications of representative works, their origins and adoption. Formulate and produce written analysis of assigned works. Same course as Religious Studies A180. Students completing English A141 may not receive credit for Religious Studies A180. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A141H—Honors The Bible As Literature (3)

Advisory: English A100.

Read, analyze, and write on important Biblical works from both the Old and New Testament canon. Explore the historical, cultural, philosophical, and aesthetic implications of representative works, their origins and adoption. Formulate and produce written analysis of assigned works. Same course as Religious Studies A180. Students completing English A141H may not receive credit for Religious Studies A180. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A143—Children’s Literature and Film (3)

Advisory: English A100.

Read, analyze, and write on important texts of children’s literature. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A143H—Honors Children’s Literature and Film (3)

Advisory: English A100.

Read, analyze, and write on important texts of children’s literature. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A147—Introduction to Science Fiction (3)

Prerequisite: English A100.

Read, analyze, and write on important works of science fiction. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A147H—Honors Introduction to Science Fiction (3)

Prerequisite: English A100.

Read, analyze, and write on important works of science fiction. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. Three hours. **Transfer Credit: CSU; UC.**

English A148—Film As Literature (3)

Advisory: English A100.

Read, analyze, and write on international and American films. Critically examine the philosophical, cultural, mythic, religious, and/or historical elements related to film. Explore the styles in individual works and the commentary made on moral, social, and aesthetic issues. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

English A148H—Honors Film As Literature (3)

Advisory: English A100.

Read, analyze, and write on international and American films. Critically examine the philosophical, cultural, mythic, religious, and/or historical elements related to film. Explore the styles in individual works and the commentary made on moral, social, and aesthetic issues. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

All courses numbered A100 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 A150—American Literature Before the 20th Century (3)

Advisory: English A100.

Read, analyze, and write on important early American literary works produced prior to the 20th Century. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A150H—Honors American Literature Before the 20th Century (3)

Advisory: English A100.

Read, analyze, and write on important early American literary works produced prior to the 20th Century. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A151—American Literature in the 20th Century (3)

Advisory: English A100.

Read, analyze, and write on important American literary works from the early 20th century to the present. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A151H—Honors American Literature in the 20th Century (3)

Advisory: English A100.

Read, analyze, and write on important American literary works from the early 20th century to the present. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A152—American Ethnic Literature (3)

Advisory: English A100.

Read, analyze, and write on important texts of American ethnic literature. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A152H—Honors American Ethnic Literature (3)

Advisory: English A100.

Read, analyze, and write on important texts of American ethnic literature. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A156—California Literature (3)

Prerequisite: English A100.

Read, analyze, and write on important texts of California Literature. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A156H—Honors California Literature (3)

Prerequisite: English A100.

Read, analyze, and write on important texts of California Literature. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A160—World Literature Through Renaissance (3)

Advisory: English A100.

Read, analyze, and write on important early World literary works produced prior to the Renaissance, excluding British works. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A160H—Honors World Literature Through Renaissance (3)

Advisory: English A100.

Read, analyze, and write on important early World literary works produced prior to the Renaissance, excluding British works. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A161—World Literature Since Renaissance (3)

Advisory: English A100.

Read, analyze, and write on important World literary works from the Renaissance to the present. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A161H—Honors World Literature Since Renaissance (3)

Advisory: English A100.

Read, analyze, and write on important World literary works from the Renaissance to the present. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A170—Modern and Post-Modern Literature (3)

Advisory: English A100.

Read, analyze, and write on important modern and post-modern literary works. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A170H—Honors Modern and Post-Modern Literature (3)

Advisory: English A100.

Read, analyze, and write on important modern and post-modern literary works. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A172—Unique Topics in Literature (3)

Advisory: English A100.

Read, analyze, and write on important texts chosen because of their timeliness and focus on a common theme, form, geographical area, or cultural group. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A173—Women Writers (3)

Prerequisite: English A100.

Read, analyze, and write on important works by women writers. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A173H—Honors Women Writers (3)

Prerequisite: English A100.

Read, analyze, and write on important works by women writers. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A175—Shakespeare (3)

Prerequisite: English A100.

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. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A175H—Honors Shakespeare (3)

Prerequisite: English A100.

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. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A176—World Mythology (3)

Advisory: English A100.

Read, analyze, and write on myths and the literature based on mythic traditions. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Formulate and produce written analysis of assigned work. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A176H—Honors World Mythology (3)

Advisory: English A100.

Read, analyze, and write on myths and the literature based on mythic traditions. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Formulate and produce written analysis of assigned work. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A179—Introduction to Gender Issues in Literature and Film (3)

Prerequisite: English A100.

Read, analyze, and write on literature and films of different genres, periods, and cultures that focus on culturally constructed images of males and females. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these films and texts. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A187—Introduction to Literary Theory (3)

Prerequisite: English A100.

Introduction to literary theory and interpretation with a focus on genre, textual analysis, and application of theoretical principles. Examines the influence of philosophy and history on perceptions of literature and will investigate relevant topics such as art, sexuality, economics, culture, power, and language. Some authors may include Barthes, Freud, Marx, Derrida, and Foucault. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A187H—Honors Introduction to Literary Theory (3)

Prerequisite: English A100.

Introduction to literary theory and interpretation with a focus on genre, textual analysis, and application of theoretical principles. Examines the influence of philosophy and history on perceptions of literature and will investigate relevant topics such as art, sexuality, economics, culture, power, and language. Some authors may include Barthes, Freud, Marx, Derrida, and Foucault. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A280—Survey of British Literature Before 1800 (3)

Prerequisite: English A100.

Read, analyze, and write on important British literature from the Anglo-Saxon period to 1800. Explore the historical, cultural, philosophical and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A280H—Honors Survey of British Literature Before 1800 (3)

Prerequisite: English A100.

Read, analyze, and write on important British literature from the Anglo-Saxon period to 1800. Explore the historical, cultural, philosophical and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A285—Survey of British Literature After 1800 (3)

Prerequisite: English A100.

Read, analyze, and write on important British literary works after 1800. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

English A285H—Honors Survey of British Literature After 1800 (3)

Prerequisite: English A100.

Read, analyze, and write on important British literary works after 1800. Explore the historical, cultural, philosophical, and aesthetic implications of representative works. Formulate and produce written analyses of assigned works. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

ENGLISH AS A SECOND LANGUAGE

English as a Second Language A011—Beginning Listening and Speaking (4)

Prerequisite: Qualifying score on the ESL placement test administered through the OCC Assessment Center or approval of the ESL Advisor.

Listening comprehension, oral communication, and pronunciation skills for beginning academic students who are non-native speakers of English. Practice in spontaneous conversation and small group discussion. May be taken for grades or on a pass-no pass basis. Four hours. Not applicable to AA or AS degree.

English as a Second Language A015—Grammar, Reading and Writing 1 (8)

Prerequisite: Qualifying score on the ESL placement test administered through the OCC Assessment Center or approval of the ESL Advisor. Also, qualifying score on the OCC ESL placement test for ESL A121 level or higher or concurrent enrollment in ESL A011.

Intense introductory level of integrated basic grammar, reading, and writing of American English for non-native students who are pursuing college coursework. Includes work on sentence structure, questions, verb tenses, spelling and vocabulary. May be taken for grades or on a pass-no pass basis. Eight hours. Not applicable to AA or AS degree.

English as a Second Language A090—Intensive Grammar 1 (1.5)

Intensive study of English grammar for students needing review. Review of fundamentals including “be” verb, verb tenses, adverb and noun clauses, question formation, pronouns, modals, gerunds, infinitives, comparative and superlative adjectives, conjunctions, articles, and prepositions. This course may also be offered online. May be taken on a grade or pass/no-pass basis. Not applicable to AA or AS degree.

English as a Second Language A091—Intensive Grammar 2 (1.5)

Intensive study of intermediate and advanced English grammar for students needing review. Review of verb tenses, modals, clauses, clause reduction, passives, sentence combination, conjunctions, tense sequences, preposition and article usage. For students in need of extra work. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. Not applicable to AA or AS degree.

English as a Second Language A121—Listening and Speaking Skills 1 (3)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A011.

Listening comprehension, oral communication, and pronunciation skills for low-intermediate students. Practice comprehending classroom conversation skills and lectures. Practice in spontaneous conversation. Work on American sound system, including rhythm and intonation. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

English as a Second Language A125—Grammar, Reading and Writing 2 (6)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A015. Also, qualifying score on the OCC ESL placement test for ESL A121 or higher or completion of ESL A011.

Integrated intensive study of grammar, reading, and writing for low-intermediate students who are non-native speakers of English. Practice with sentence structure, tenses, modals, comparative and superlative, and clauses. Reading for facts and inferences. This course may also be offered online. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Eight hours. **Transfer Credit: CSU.**

English as a Second Language A131—Listening and Speaking Skills 2 (3)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A121.

All courses numbered A100 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.

Listening comprehension, oral communication, and pronunciation skills for intermediate students. Practice on basic note-taking from lectures. Task-oriented discussion techniques. Review of basic patterns of American pronunciation. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

English as a Second Language A135—Grammar, Reading and Writing 3 (7)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A125. Also, qualifying score on the OCC ESL placement test for ESL A131 or higher or completion of ESL A121.

Integrated intensive study of grammar, reading, and writing for intermediate students who are non-native speakers of English. Introduction to literal and critical reading; responding to unsimplified texts. Writing practice for grammar, mechanics and fluency. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Nine hours. **Transfer Credit: CSU.**

English as a Second Language A151—Listening and Speaking Skills 3 (3)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A131.

Listening comprehension, oral communication, and pronunciation skills for high-intermediate and advanced second language students. Practice in effective note-taking and listening for specific information. Work on interpersonal communication, oral presentation, and pronunciation. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

English as a Second Language A153—Communication Skills for International Students (3)

Prerequisite: ESL placement test administered through the OCC Assessment Center, or recommendation of ESL A131 instructor. Recommended for F1 Visa students.

Development of academic and cultural adjustment skills necessary to succeed in college. Listening comprehension, oral communication and pronunciation as applied to person-to-person and group communication for high-intermediate and advanced international students, Emphasis on effective note taking from lectures designed to enhance cultural adjustment to the U.S. **Transfer Credit: CSU.**

English as a Second Language A155—Grammar, Reading and Writing 4 (6)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A135. Also, qualifying score on the OCC ESL placement test for ESL A151 or completion of ESL A131.

Integrated intensive study of grammar, reading, and writing for high-intermediate students who are non-native speakers of English. Review of intermediate grammar and

reading skills, with work on advanced grammatical structures. Paragraph writing in response to readings. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Eight hours. **Transfer Credit: CSU.**

English as a Second Language A160—Composition and Reading 1 (3)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A155. Also, qualifying score on the OCC ESL placement test for ESL A151 or completion of ESL A131.

Integrates college level reading, writing, and critical thinking skills. Emphasis on summary skills and short responses to college-level readings. Students will write 6,000 instructor-evaluated words. Individual attention given to the structure and usage problems of ESL students through conferencing and computer applications. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

English as a Second Language A165—Advanced Sentence Analysis and Construction (3)

Prerequisite: Qualifying score on the OCC ESL placement test or completion of ESL A155. Also, qualifying score on the OCC ESL placement test for ESL A151 or completion of ESL A131.

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 non-native 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 pass-no pass basis. This course may be taken two times. Four hours. **Transfer Credit: CSU.**

English as a Second Language A199—Composition and Reading 2 (3)

Prerequisite: ESL A160 or A165. Also, qualifying score on the OCC ESL placement test for ESL A151 or completion of ESL A131.

Integrates college-level reading, writing, and critical thinking skills. Intensive practice in writing essays in response to college-level expository texts using various methods of development and organization. Individual attention given to sentence structure and usage problems. Students will write 6,000 instructor-evaluated words. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

ETHNIC STUDIES

Ethnic Studies A100—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 A150—Ethnic Groups in the U.S.: Their Histories (3)

A survey of the history of the many (40+) 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 A150. Students who enroll in Ethnic Studies A150 may not receive credit for History A150. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Ethnic Studies A190—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 A190. Students completing Ethnic Studies A190 may not receive credit for Sociology A190. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

FAMILY AND CONSUMER SCIENCES

Family and Consumer Sciences A180—Life Management (3)

This course develops skills in using resources for effective functioning now and in the future. Topics include steps in goal setting, problem solving, value clarifications, basic time and money management, nutrition and health. Three hours. **Transfer Credit: CSU.**

FASHION

Fashion A050—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. This course may be taken four times. One and one-half to six hours arranged laboratory. Not applicable to AA or AS degree.

Fashion A100—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 A101—Intermediate Clothing Techniques (3)

Prerequisite: Fashion A100 or concurrent enrollment. Intermediate techniques to increase skill level in garment construction. The student will complete a minimum of two projects. This course may be taken two times. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Fashion A102—Industrial Sewing Techniques (2)

Prerequisite: Fashion A100 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 A105—Sewing Skills Assessment (3)

Advisory: Fashion A100 or A101. Assessment of sewing skills and performance of specified clothing techniques required for Fashion A100 and A101. Offered on a pass-no pass basis only. One hour lecture, five hours laboratory. **Transfer Credit: CSU.**

Fashion A110—Applied Textiles and Design (3)

Selection, use, care, and performance standards for textile products for fashion apparel and interior textiles. Three hours. **Transfer Credit: CSU; UC.**

Fashion A115—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. This course may be taken two times. Three hours. **Transfer Credit: CSU.**

Fashion A118—Trend Forecasting (3)

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 A120—History of Fashion (1.5)

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. This course may also be offered online. One and one-half hours. **Transfer Credit: CSU.**

Fashion A121—Street Style (1.5)

This course explores the significant and dynamic role street style plays in the 21st 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. One and one-half hours. **Transfer Credit: CSU.**

Fashion A130—Tailoring (1.5)

Prerequisite: Fashion A100. 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 pass-no pass basis. This course may be taken two times. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

Fashion A135—Design in Everyday Life (2)

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 A137—Alterations (2)

Prerequisite: Fashion A100. Basic analysis and techniques related to fitting and altering ready-to-wear garments and commercial patterns. May be taken for grades or on a pass-no pass basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

Fashion A150—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 A155—Pattern Tech (2.5)

Prerequisite: Fashion A150. 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 A170—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 A175—Applied Color and Design Theory (3)

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 A175. Students completing Fashion A175 may not receive credit for Interior Design A175. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Fashion A177—Fashion Merchandising Concepts (3)

An introduction to the fashion merchandising industry will include vendors and products sold, as well as the various types of retail venues and the methods of merchandising apparel in each. The packaging and marketing of a product and the tracking of a fashion trends in several venues will also be included. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Fashion A180—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. This course may be taken two times. One hour lecture, five hours laboratory. **Transfer Credit: CSU.**

Fashion A181—Fashion Internship (1-2)

Prerequisite: Fashion A110, A115, A120, A121, A170 and A177. A supervised internship related to classroom-based learning at a fashion-related work site. Course will include resume writing, interviewing skills, and portfolio development. This course may be repeated four times. Two hours lecture, eight hours arranged. **Transfer Credit: CSU.**

A supervised internship related to classroom-based learning at a fashion-related work site. Course will include resume writing, interviewing skills, and portfolio development. This course may be repeated four times. Two hours lecture, eight hours arranged. **Transfer Credit: CSU.**

Fashion A182—Professional Practices (2)

Prerequisite: Fashion A181. This course will include writing resumes and professional correspondence and developing a visual portfolio. This course should be taken in the final semester of the certificate program. **Transfer Credit: CSU.**

Fashion A199—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 pass-no pass basis. This course may be taken four times. Three hours. **Transfer Credit: CSU.**

Fashion A225—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 A233—Couture Techniques (2)

Prerequisite: Fashion A101.

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 A235—Draping (2)

Prerequisite: Fashion A110 and A150.

The creative design of garments through draping techniques emphasizing fabric manipulation and design creation. May be taken for grades or on a pass-no pass basis. One hour lecture/demonstration, two hours laboratory arranged in open laboratory. **Transfer Credit: CSU.**

Fashion A255—Fashion Illustrating Techniques (3)

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 pass-no pass basis. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Fashion A260—Fashion Design/Production Concepts and Applications (3)

Advisory: Fashion A110 and A150.

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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Fashion A266—Computerized Pattern System (2)

Advisory: Fashion A150.

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 A100—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 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.**

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Film/Video A104—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Film/Video A110—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 A112—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 A150—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. Additionally, broadcast advertising, research, media law, and regulations are explored with the additional impact of global broadcasting, cable TV, Internet, and satellite technologies. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Film/Video A155—Television Production 1 (3)

Introduction, orientation, and use of digital television studio equipment and other basic tools in television production. The course will focus on theory, terminology, and 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.**

Film/Video A193—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 A194—Digital Film and Video Editing 1 (3)

Prerequisite: Film/Video A110.

Explore the principles, theory, and mechanics of digital film and video editing using Macintosh computers. Emphasis will be on digital editing techniques, effects, audio, graphics, and titling. The class is designed for those interested in entering the field of digital editing, graphic artists interested in expanding their knowledge base of the industry, and independent producers in the Broadcast, Educational, Corporate, and Consumer markets. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

Film/Video A240—Film Production (4)

Prerequisite: Film/Video A110.

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 A255—Television Production 2 (3)

Prerequisite: Film/Video A155.

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. This course may be taken three times. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Film/Video A260—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 pass-no pass basis. This course may be taken two times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Film/Video A261—Television Lab (2)

Prerequisite: Film/Video A155.

Participation in the production and technical support of special television programs for students interested in gaining further experience with television. This course may be taken four times. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

Film/Video A264—Digital Film and Video Editing 2 (3)

Prerequisite: Film/Video A194.

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. Designed for students interested in a career as a film/video editor. This course may be taken two times. Two hours lecture, two and one-half hours non-lecture. **Transfer Credit: CSU.**

Film/Video A265—Electronic Field Production (4)

Prerequisite: Film/Video A110.

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. This course may be taken four times. Three hours lecture, five hours non-lecture. **Transfer Credit: CSU.**

Film/Video A270—Digital Cinema (4)

Prerequisite: Film/Video A240 and A265.

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. This course may be taken two times. Three hours lecture, five hours laboratory. **Transfer Credit: CSU.**

FOOD AND NUTRITION

Food and Nutrition A100—Careers in Dietetics and Food Science (1)

Exploration of the fields of Dietetics and Food Science/ Culinology, including trends, future projections and employment opportunities. Guest speakers and field trips to nutrition services in health care and community agencies and food manufacturing plants are included. Same as Nutrition Care A100. Students completing Food and Nutrition A100 may not receive credit for Nutrition Care A100. One hour lecture, one-half hour non-lecture. **Transfer Credit: CSU.**

Food and Nutrition A120—Cooking Essentials (1)

Introduction to food selection and preparation, small equipment usage, and menu planning. This is a beginning cooking class with healthy meals prepared and tasted each week. One hour lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Food and Nutrition A125—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 pass-no pass basis. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

Food and Nutrition A136—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 athlete and active individuals. Includes pre and post event food and fluid selection, nutrient requirements, supplements, muscle mass and body fat related to performance. Same as Health Education A136. Students completing Food and Nutrition A136 may not receive credit for Health Education A136. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Food and Nutrition A140—Introduction to Nutrition Concepts (2)

Practical approach to nutrition: includes basic nutrition, food product evaluation, menu modification, food and health issues, nutrition controversies, and food safety. Recommended for Culinary Arts and students wanting an overview of applied nutrition. This course may also be offered online. Two hours. **Transfer Credit: CSU.**

Food and Nutrition A144—Life Cycle Nutrition: Mother and Infant (1)

An overview of nutrition for the mother during pregnancy and lactation (breast feeding). Nutritional recommendations for infants, including breast and/or bottle feeding and solid foods through the first year of life. Government assistance programs such as WIC will be explored. One hour. **Transfer Credit: CSU.**

Food and Nutrition A145—Life Cycle Nutrition: Children (1) (6 week course)

An overview of nutritional needs of children (ages 2 – 18), including age appropriate practices and foods to promote optimum growth and development as well as common problems of weight (over/under), food allergies and intolerances. Three hours. **Transfer Credit: CSU.**

Food and Nutrition A146—Life Cycle Nutrition: Later Years (1) (6 week course)

An overview of the factors affecting the nutritional status of the aging adult: nutritional needs, physiological, social and psychological changes, disease intervention, drug nutrient interactions and community resources to assist the aging population. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Food and Nutrition A170—Nutrition (3)

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. Recommended for nutrition majors and transfer students. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

Food and Nutrition A171—Applied Nutrition (2)

Prerequisite: Food and Nutrition A136 or A140 or A170 or concurrent enrollment.

Current issues in nutrition are explored along with weekly meal preparation and analysis emphasizing maximum nutrient intake. Topics covered include energy needs, current research, eating disorders, supplements, functional foods, and food safety. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

Food and Nutrition A173—Cooking Lite (1)

Practical information for establishing a lifelong eating plan to maintain optimum health. Healthy meals are prepared and tasted each week, with moderate levels of sugar, fat, salt and calories. One-half hour lecture, one hour non-lecture. **Transfer Credit: CSU.**

Food and Nutrition A180—Principles of Foods (3)

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 representations. Recommended for students transferring to the CSU in Nutrition. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Food and Nutrition A185—Cultural Foods (2)

Exploration of America's diverse micro-cultures through food including origins, customs, psychological acceptance and nutrition information. Emphasis is placed on food preparation techniques, utensils, food service, and creation of an authentic atmosphere. Meets AA Cultural Diversity Requirement. May be taken for grades or on a pass-no pass basis. One and one-half hours lecture, one and one-half hours laboratory. **Transfer Credit: CSU.**

Food and Nutrition A195—Food Science (4)

Prerequisite: Food Service Management A160 or Food Service Management A161 or ServSafe Certification. This prerequisite will be validated in class during the first week of the course.

Food science is the scientific study of raw food materials and their behavior during formulation, processing, packaging, storage, and includes evaluation as consumer food products. Meets the AS Laboratory Science requirement, Food Service Management A160 or ServeSafe Certificate recommended. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Food and Nutrition A199—Current Issues in Food, Nutrition, and Food Science (.5) (1-8 week course)

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. 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. This course may be taken four times. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to nine hours lecture. **Transfer Credit: CSU.**

FOOD SERVICE MANAGEMENT

Food Service Management A100—Introduction to the Hospitality Industry (3)

Overview of the hospitality industry, its history and inter-relationships 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 Culinary Arts A100 and Hospitality, Travel & Tourism A100. Students completing Food Service Management A100 may not receive credit for Culinary Arts A100 or Hospitality, Travel & Tourism A100. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Food Service Management A145—Child Nutrition Program Management (2)

The final course of the Child Nutrition Program Management Certificate that covers the roles and responsibilities of school food service managers and child care administrators. Topics include providing meals that comply with legislative and budgetary parameters and meet nutritional needs of children in a safe and sanitary manner. Two hours. **Transfer Credit: CSU.**

Food Service Management A151—Food Production Management (2)

Prerequisite: Culinary Arts A150 or any two of the following: Culinary Arts A120, A122, A124, A149.

Techniques and practice managing individuals responsible for producing food including supervision 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 A160—Sanitation and Safety (3)

The basic principles of bacteriology, safety, equipment selection, and facility layout for food service operations. Includes cause and control of food-borne illnesses, cleaning materials and procedures, general safety regulations, food processing methods, first aid, and fire prevention. National food handler certification exam will be given. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Food Service Management A161—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 pass-no pass basis only. Two and one-half hours. **Transfer Credit: CSU.**

Food Service Management A190—Dining Room Service (2)

Prerequisite: Food Service Management A160 or concurrent enrollment.

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 A210—Dining Room Management (3)

Prerequisite: Food Service Management A190.

How to manage and promote a profitable dining room. Emphasis on management activities of controlling and staffing a dining room. Students will be required to follow Hospitality Department Dress Code. TB clearance required. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Food Service Management A240—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, metric conversions, cost reports, financial statements, budgets, break-even analysis and general financial decision making problems. Four hours. **Transfer Credit: CSU.**

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Food Service Management A250—Menu Planning and Purchasing (3)

The basic principles of menu planning and purchasing principles will include writing specifications for food and supplies and proper receiving/storage techniques, 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 A260—Supervision and Training Techniques (3)

Developing personnel programs and desirable labor-management relations. Special emphasis placed on leadership skills of motivation, communication, and decision making. Same as Hotel Management A260. Students completing Food Service Management A260 may not receive credit for Hotel Management A260. Three hours. **Transfer Credit: CSU.**

Food Service Management A284—Catering (3)

Prerequisite: Food Service Management A160 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.**

Food Service Management A285—Restaurant Management (3)

The principles of operating a food service facility. Characteristics unique to different segments are explored, including quick service, full service, 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 A286—Directed Practice in Food Service Management (2)

Prerequisite: Food Service Management A160 or concurrent enrollment.

A directed opportunity in food service or culinary arts to gain practical training. This directed practice is repeated for each option the student elects in order to earn a Certificate of Achievement in that option. Students will be required to follow dress standards and companies policies of conduct set by the facility in which they are working. TB clearance required. This course may be taken two times. Ten hours paid, eight hours unpaid, plus six hours seminar. **Transfer Credit: CSU.**

FRENCH

French A180—Elementary French (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in French, with an introduction to cultures related to the French language. This course is equivalent to two years of high school French. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

French A185—Elementary French (5)

Prerequisite: French A180 or completion of two years of high school French with a grade of 'C' or better.

Continuation of French A180, with further development of listening, speaking, reading, and writing proficiency, and additional exploration of cultures related to the French language. This course is equivalent to three years of high school French. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

French A190—Conversational French (3)

Designed to develop the student's ability at any level to comprehend and communicate in French: reading, writing and cultural components are included. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three hours. **Transfer Credit: CSU.**

French A199—Current Topics in French (1-5)

Development of the French language skills: listening, speaking, reading and writing. Extensive exposure to the cultures related to the French language through authentic materials and group discussions on a variety of topics ranging from current events to global issues. Emphasis on cross-cultural understanding. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One-five hours lecture. **Transfer Credit: CSU.**

French A280—Intermediate French (4)

Prerequisite: French A185.

Continuation of French A185, with further development of language skills at the intermediate level and exploration of cultures related to the French language. Additional emphasis on reading and writing, with an introduction to selected literary works. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

French A285—Intermediate French (4)

Prerequisite: French A280.

Continuation of French A280, with further refinement of language skills at the intermediate level and investigation of cultures related to the French language in preparation for higher level specialized work. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

GENDER STUDIES

Gender Studies A100—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 A130—Women, Politics and Inequality (3)

Perspectives on women and their participation in resisting and reproducing inequality in national and international contexts. Examines the gendered character of societal institutions and politics from the bedroom to the boardroom by focusing on gender, race, ethnicity, class, and sexuality in education, work, politics, the household, and activism. Three hours. **Transfer Credit: CSU; UC.**

Gender Studies A165—Men, Women, and Communication (3)

Major issues will be addressed regarding communication behaviors and communication conflicts between men and women of all gender orientations. Study will focus on problem analysis specific to gender self-awareness, gender conflict and how gender is communicated and constructed in our daily lives. Same as Speech Communication A165. Students completing Gender Studies A165 may not receive credit for Speech Communication A165. Three hours. **Transfer Credit: CSU.**

Gender Studies A187—Women in History (3)

Provides a broad overview of the experiences of women in the history of the world 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 A187. Students receiving credit for Gender Studies A187 may not receive credit for History A187. Three hours. **Transfer Credit: CSU; UC.**

GEOGRAPHY

Geography A100—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 A100H—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 A180—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 A180H—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 A180L—Physical Geography Lab (1)

Prerequisite: Geography A180 or concurrent enrollment. **Advisory:** Math A010.

This course is design to provide supplemental exercises in topics covered in Geography A180. Lab experience will include map analysis and interpretation, weather prognostication, landform processes and evolution, tectonics, biogeography, and habitat analysis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Geography A185—Cultural Elements (3)

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 A190—Introduction to Geographic Information Systems (2.0)

Advisory: Computer Information Systems A100.

Provides a theoretical basis for understanding the use of Geographic Information Systems (GIS) in spatial analysis and decision making for a variety of applications. 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 A100—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 A180. One field trip required during semester. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Geology A100H—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 A180. One field trip required. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Geology A100L—General Geology Laboratory (1)

Prerequisite: Geology A100 or concurrent enrollment. A laboratory study of materials and processes in the earth. A beginning laboratory course for the non-science major. Same as Natural Science A100G. Students completing Geology A100L may not receive credit for Natural Science A100G. May be taken for grades or on a pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Geology A100M—Honors General Geology Lab (1)

Prerequisite: Geology A100 or A100H 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 pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Geology A106—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 A135—Geology of National Parks and Monuments (3)

Geology of national parks, seashores and monuments and its influence on land forms, climate and human history. Classes will vary each semester in order to develop particular skills in interpreting field problems and relationships unique to a given area. Approximate locations will be selected from one of four geologic provinces--The Mojave Desert, Basin and Range, Sierra Nevada, or Colorado Plateau. Field trip required. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU. Transfer Credit: CSU.**

Geology A140—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. Field trip required. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Geology A160—Environmental Geology (4)

Prerequisite: English A100 or concurrent enrollment. 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 A165—Natural Disasters (3)

Geologic processes that have dramatically affected the human race: earthquakes, volcanoes, landslides, and floods. Three hours. **Transfer Credit: CSU; UC. Transfer Credit: CSU; UC.**

Geology A180—Physical Geology (4)

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 pass-no pass basis. Three hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Geology A185—Evolution of the Earth (3)

Advisory: Geology A100 or A180. 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 pass-no pass basis. Three hours lecture. **Transfer Credit: CSU; UC.**

Geology A185L—Evolution of the Earth Lab (1)

Prerequisite: Geology A185 or concurrent enrollment. Laboratory and field exercises to learn how the geologic history of the earth may be determined. Extended week-end field trip required. May be taken for grades or on a pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Geology A280—Introduction to Mineralogy (4)

Advisory: Chemistry A110 or A130.

A study of minerals including their properties, origin, relationships, and identification; performance of simple chemical tests; and the crystallography of minerals. May be taken for grades or on a pass-no pass basis. Two hours lecture; six hours laboratory. **Transfer Credit: CSU.**

Geology A285—Petrology (4)

Prerequisite: Geology A280.

Origin, occurrence, identification, and classification of rocks and rock-forming minerals. Emphasis is on hand lens/microscopic identification and field occurrences. Two hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

GERMAN

German A180—Elementary German (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in German, with an introduction to cultures related to the German language. This course is equivalent to two years of high school German. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

German A185—Elementary German (5)

Prerequisite: German A180 or completion of two years of high school German with a grade of 'C' or better.

Continuation of German A180, with further development of listening, speaking, reading, and writing proficiency, and additional exploration of cultures related to the German language. This course is equivalent to three years of high school German. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

German A280—Intermediate German (4)

Prerequisite: German A185.

Continuation of German A185, with further development of language skills at the intermediate level and exploration of cultures related to the German language. Additional emphasis on reading and writing, with an introduction to selected literary works. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

German A285—Intermediate German (4)

Prerequisite: German A280.

Continuation of German A280, with further refinement of language skills at the intermediate level and investigation of cultures related to the German language in preparation for higher level specialized work. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

HEALTH EDUCATION

Health Education A100—Health Education (3)

The exploration of health using the holistic approach. Emphasis is on positive health behaviors and personal responsibility. Topics include mental health, stress, drugs, alcohol, smoking, exercise, nutrition, chronic and infectious diseases, sexuality, consumer health, and environmental health. This course may also be offered online. May be taken for grades or on a pass-no pass basis. **Transfer Credit: CSU; UC.**

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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.

Health Education A111—Cardiopulmonary Resuscitation (.5) (3 week course)

Techniques and theory of cardiopulmonary resuscitation. Completion qualifies student for CPR certification. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Health Education A112—First Aid and CPR (2)

Emphasizes injury prevention, early medical care, first aid for common injuries and life saving skills. Successful completion qualifies a student for the American Red Cross Standard First Aid Card, and CPR Certification. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU; UC.**

Health Education A120—Women's Health Issues (3)

Exploration and discussion of the dimensions of health as they relate to women. Students' role and responsibilities for their health will be examined. Topics to include sexual and reproductive health; nutrition, fitness, and weight control; chronic diseases and cancers; mental health and substance abuse; political and economic considerations. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Health Education A122—Drugs, Health and Society (3)

Examination of the use, misuse and abuse of drugs, both licit and illicit, in American society. Includes psychosocial, legal, historical, political, and health related aspects; drug dependency, 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Health Education A134—Fitness and Health (3)

Theory and benefits of physical activity to fitness-related health. The study of human adaptation to exercise includes cardiovascular conditioning, neuromuscular training, body composition, nutrition for performance, stretching, sports injuries, and aging. Same as Physical Education A134. Students completing Health Education A134 may not receive credit for Physical Education A134. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Health Education A136—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 athlete and active individuals. Includes pre and post event food and fluid selection, nutrient requirements, supplements, muscle mass and body fat related to performance. Same as Food and Nutrition A136. Students completing Health Education A136 may not receive credit for Food and Nutrition A136. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Health Education A138—Drugs and Sports (2)

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 Physical Education A138. Students completing Health Education A138 may not receive credit for Physical Education A138. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Health Education A199—Current Health Issues (.5-3)

The study and discussion of topics and issues of current interest in health. Units vary according to topic selected, semester selected, and number of meetings scheduled. Of interest to students majoring in health related fields or general education. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to three hours. **Transfer Credit: CSU.**

HEATING, VENTILATION AND AIR CONDITIONING

Heating and A/C A100— Air Conditioning & Refrigeration Principles (3)

Course covers heat principles, heat loads, refrigeration cycle, system components, refrigerant properties, system operation, soldering and oxy-acetylene brazing. Three hours. This course may be taken two times. **Transfer Credit: CSU.**

Heating and A/C A101—Basic Electrical for HVACR (3)

Advisory: Heating and A/C A100.

Basic electrical theory & application. Students will build a variety of series and parallel circuits using switches, contactors, relays, thermostats, transformers and other controls used in the HVAC-R field in addition to using miscellaneous electrical components. This course may be taken two times. Three hours. **Transfer Credit: CSU.**

Heating and A/C A102—Refrigeration Service (3)

Prerequisite: Heating and A/C A100 and A101.

Operation, Maintenance, Troubleshooting and repair of Commercial refrigeration systems. This course may be taken two times. Three hours. **Transfer Credit: CSU.**

Heating and A/C A103—Air Conditioning Service (3)

Prerequisite: Heating and A/C A100 and A101.

Advisory: Heating and A/C A105.

Operation, maintenance, diagnosis and repair of air conditioning systems and their components for proper function. This course may be taken two times. Three hours.

Transfer Credit: CSU. **Transfer Credit:** CSU.

Heating and A/C A104—Air Balance (3)

Prerequisite: Heating and A/C A100 and A101.

Advisory: Heating and A/C A103 and A105.

Operation and maintenance of air conditioning and heating ducts and their controls; various methods of distribution and the means to deliver proper air flow. This course may be taken two times. Three hours. **Transfer Credit:** CSU.

Heating and A/C A105—Air Conditioning & Refrigeration Controls (3)

Prerequisite: Heating and A/C A100 and A101.

Controls used in the Heating, Air Conditioning and Refrigeration that include temperature, pressure, overload and safety controls. This course may be taken two times. Three hours. **Transfer Credit:** CSU.

Heating and A/C A106—Non-Residential Applications for HVAC (3)

Prerequisite: Heating and A/C A100 and A101.

Fundamentals of operation, maintenance, and trouble shooting of non-residential equipment and systems. Topics include but are not limited to chillers, centrifugal, reciprocal, absorption, and other current systems. This course may be taken two times. Three hours. **Transfer Credit:** CSU.

Heating and A/C A110—Pneumatic Controls I (3)

Prerequisite: Heating and A/C A100 and A101.

Students will operate, maintain, diagnose and repair basic pneumatic controls from installation to service requirements. This course may be taken two times. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit:** CSU.

Heating and A/C A140—Building Automation (3)

Prerequisite: Heating and A/C A100 and A101.

Fundamental applications and design of building automation systems for HVACR. This course may be taken two times. Three hours. **Transfer Credit:** CSU.

HISTORY

History A100—Survey of American History (3)

A one semester 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 college requirements in American History. Not designed for history majors. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A101—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A102—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 pass-no pass basis. Three hours.

Transfer Credit: CSU; UC.

History A102H—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 pass-no pass basis. Three hours.

Transfer Credit: CSU; UC.

History A103—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A103H—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A105—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 pass-no pass basis. Three hours.

Transfer Credit: CSU.

History A128—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A140—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A145—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A150—Ethnic Groups of the United States: Their Histories (3)

A survey of the history of the many (40+) 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 A150. Students who enroll in History A150 may not receive credit for Ethnic Studies A150. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A170—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. Satisfies the state college requirement in American History. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A170H—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A175—History of the United States Since 1876 (3)

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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A175H—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A177—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. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A179—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 pass-no pass basis. Three hours. **Transfer Credit:** CSU; UC.

History A180—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 on our civilization. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

History A180H—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

History A185—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

History A185H—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

History A187—Women in History (3)

Provides a broad overview of the experiences of women in the history of the world 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 A187. Students receiving credit for History A187 may not receive credit for Gender Studies A187. Three hours. **Transfer Credit: CSU; UC.**

History A190—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

History A195—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

History A197—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

History A198—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

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HOME ECONOMICS

(See *Family and Consumer Sciences*)

HOSPITALITY, TRAVEL & TOURISM

Hospitality, Travel & Tourism A100—Introduction to the Hospitality Industry (3)

Overview of the hospitality industry, its history and inter-relationships 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 Culinary Arts A100 and Food Service Management A100. Students completing Hospitality, Travel & Tourism A100 may not receive credit for Culinary Arts A100 or Food Service Management A100. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Formerly ARLN A105

Hospitality, Travel & Tourism A105—Public Service (2-4)

This course presents students with service learning opportunities where they practice the conceptual theories of their course work. Students develop public contact and service skills as they host campus, community, civic, and travel related events. Students improve their social, professional demeanor and critical thinking skills considered essential in the airline, hotel, travel and tourism industries. This course may also be offered online. This course may be taken three times. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A114—Communication Connection (1.5)

Students will learn how professional communication skills can make the difference in achieving their personal career success. This course reviews oral and written career communication skills, including the development of a personal portfolio. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A115—Interviewing Techniques (1.5)

This course is an examination of the employment process in the Hospitality and Travel industries. The course analyzes interview techniques, employment tests, and interviewers' questions leading toward employment in all aspects of the Tourism industry. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A116—Internship 1 (3)

Prerequisite: Hotel Management A110, Hospitality, Travel & Tourism A100, A180 or concurrent enrollment in two of the previous courses.

An internship opportunity for students enrolled in Hotel Management, Spa Management, or Travel and Tourism programs at Orange Coast College. The internship is repeated for each option the student elects in order to earn a certificate. Students will be required to follow standards set by the company in which they are working. This course may also be offered online. This course may be taken four times. Two hours lecture, seven hours unpaid, twelve hours paid. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A118—Hospitality Accounting (3)

This course 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 resulting in the production of financial statements. This course is certified through the American Hotel & Lodging Association. This course may also be offered online. Three hours lecture and one hour lab. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A120—Housekeeping and Property Operations (3)

Examines the technical functions and coordination between hotel housekeeping and maintenance departments. The fundamentals of management are emphasized through proper communication, training, detailed work methods, and quality assurance techniques. This course is certified through the American Hotel & Lodging Association. This course may also be offered online. Three hours lecture and one hour lab. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A122—Destination United States (1.5)

This course provides information for maximizing the travel experience to include customs, entry requirements, currency, regional accents, language and dialects, shopping, historical and recreational tourist destinations and regional culture and cultural diversity for the United States. This course may also be offered online. **Transfer Credit: CSU.**
Formerly ARLN A123

Hospitality, Travel & Tourism A123—Destination Northern Europe (1.5)

This course provides information for maximizing the travel experience to include customs, entry requirements, currency, regional accents, language and dialects, shopping, historical and recreational tourist destinations and regional culture and cultural diversity for Scandinavia, the British Isles, and the Low Countries. This course may also be offered online. **Transfer Credit: CSU.**
Formerly ARLN A125

Hospitality, Travel & Tourism A124—Destination Africa (1.5)

This course provides information for maximizing the travel experience to include customs, entry requirements, currency, regional accents, language and dialects, shopping, historical and recreational tourist destinations and regional culture and cultural diversity for Africa. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A125—Destination the Americas (1.5)

This course provides information for maximizing the travel experience to include regional accents, dialects, culture, shopping, historical and recreational tourist destinations for Canada, Mexico, Caribbean, Central America and South America. This course may also be offered online.

Formerly ARLN A126

Hospitality, Travel & Tourism A126—Destination Southern Europe (1.5)

This course provides information for maximizing the travel experience to include regional accents, dialects, culture, shopping, historical and recreational tourist destinations for Greece, Spain, Portugal, Italy, Austria, Germany, Switzerland, and France. This course may also be offered online. **Transfer Credit: CSU. Transfer Credit: CSU.**

Formerly ARLN A128

Hospitality, Travel & Tourism A127—Destination Eastern Europe (1.5)

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 Baltic countries, Czech Republic, Slovakia, Hungary, Poland, former Yugoslavia Countries, Romania, and Albania. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A128—Destination Pacific Rim (1.5)

This course provides information for maximizing the travel experience to include regional accents, dialects, culture, shopping, historical and recreational tourist destinations, for Australia, New Zealand, Japan, South Korea, Hong Kong, China, Taiwan, Thailand, Philippines, Tahiti, Samoa, Fiji, Singapore, Malaysia, Indonesia, and Indochina. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A129—Computer Reservation Systems - APOLLO (2.5)

Advisory: Airline Travel Careers A116.

This course is an introduction to APOLLO, the computer reservations system used by United Airlines and one of the two major systems used by travel consultants. Students will learn how to build PNR's (passenger name records), quote fares, and calculate prices through hands-on applications on computers. This course may also be offered online. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A131—Computer Reservation Systems - SABRE (2.5)

Advisory: Airline Travel Careers A116.

This course is an introduction to SABRE, the computer reservations system used by American Airlines and one of the two major systems used by travel consultants. Students will learn how to build PNR's (passenger name records), quote fares, and calculate prices through hands-on applications on computers. This course may also be offered online. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A132—Cultural Awareness and Etiquette (1.5)

This course will provide the student with awareness and insight into the cultures of the world. Curriculum includes: values, historical beliefs and religion, plus cultural etiquette including social practices, gestures, body language, eating and drinking practices, and business behavior. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A133—Success Strategies (2)

Career readiness and workplace development are important to be competitive and successful in the workplace. Students have an opportunity to create and change their habits and vision allowing themselves to have a rich, full, and rewarding personal, scholastic, and professional life through the adoption of positive strategies and techniques. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A134—Computing for Hospitality, Travel & Tourism (1.5)

Travel industry computer systems using various industry applications such as: reservations, operations management, ticketing, training, home based communication and crew scheduling. .75 lecture, .75 non-lecture. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A135—Homeland Security (2)

Advisory: Airline Travel Careers A116.

Introductory study of domestic and international threats of terrorism. Examines the concepts, definitions and contemporary issues of modern terrorism. Includes law enforcement issues for first-responders relating to terrorism, particularly with regard to Homeland Protection and counter terrorist measures. This course may also be offered online. Two hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A140—Reservation and Revenue Management (1)

Advisory: Hotel Management A110 or Hospitality, Travel & Tourism A150 or concurrent enrollment.

This course provides an introduction to Reservation and Revenue Management. It addresses the elements of a risk management program including, developing forecasts for room revenue and occupancy, evaluating revenue opportunities, and tracking future room availabilities to achieve maximum revenue from the sale of perishable assets. This course is certified through the American Hotel & Lodging Association. The course may also be offered online. One hour lecture and one-half hour non-lecture. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A150—Taking Off in Travel (1.5)

Survey of the travel and tourism industry and its component segments: airlines, cruises, hotels, tour operators, retail travel agencies, tour wholesalers, receptive ground operators, and other miscellaneous new segments of the industry. Review of each segment and analysis of type of careers, background education, and entry skill preparation, expected salary scale, and travel benefits. This course may also be offered online. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A151—Travel and Tourism Workshop (1)

Prerequisite: Hospitality, Travel & Tourism A150 or concurrent enrollment.

Provides a working knowledge of the travel industry. Use all related travel courses in applying knowledge to mock situations. The workshop is repeated for each option the student elects in order to earn a certificate. Students will be required to follow work and dress standards set by the company in which they are working. This course may be taken four times. One hour lecture and one-half hour non-lecture. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A152—Corporate Travel (1.5)

Prerequisite: Hospitality, Travel & Tourism A150 or concurrent enrollment.

An introduction to the activities and responsibilities of the corporate travel arranger and manager. Operational techniques and financial plans and management are identified, proposals and contracts are discussed and the complete corporate travel process is presented. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A153—Selling Vacation Packages and Tours (1.5)

Prerequisite: Hospitality, Travel & Tourism A150 or concurrent enrollment.

Students will learn the essentials of selling vacation packages and tours, including the latest trends, itinerary planning, and the technologies available to travel/tourism consultants in the leisure, recreational, and corporate travel markets. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A154—Cruise Industry (1)

Prerequisite: Hospitality, Travel & Tourism A150 or concurrent enrollment.

One of the fastest growing segments of the travel industry. Learn the basics of the cruise product including ship and cruise line terminology, applications and selling techniques. Cruise line ships and their destinations are identified, as well as, individual and group booking procedures. Does not train to work aboard ship. One hour. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A155—Tour Escorting and Management (1.5)

Prerequisite: Hospitality, Travel & Tourism A150 or concurrent enrollment.

This course introduces the roles and expectations of a tour escort and manager. The student will learn to research, plan and incorporate itineraries, promote the "package", attract clients, and manage the operational aspects of a group. The responsibilities and characteristics of a tour escort will also be discussed. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A160—Introduction to Spa and Hospitality Operations (1.5)

Gain an understanding of the operational and administrative procedures in spas, private clubs, and the hospitality industry. You will develop an understanding of unique sensitivities required in managing and operating in the increasingly lucrative and complex spa industry. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A165—Spa Industry Services and Treatments (1.5)

As the industry evolves, day spas, hotel spas, destination spa resorts, and spas with medical services are becoming more specialized. Understanding the services and treatments making each different is an important element to the success of a business. This course will take you through the fundamentals of spa therapies, equipment, and products and projections for future trends. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A170—Spa Industry Finance (1.5)

This course provides spa supervisors and operation managers techniques toward successful financial management. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A175—Spa Marketing and Retail Management (1.5)

In this course the student will learn to develop effective marketing and retailing to increase sales, and promote branding opportunities for a spa. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A180—Enhancing Guest Service (3)

Advisory: Hotel Management A110 or Hospitality, Travel & Tourism A100 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 while developing a personal service style. Three hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A199—Current Issues in Hospitality, Travel & Tourism (.5-1.5)

This course deals with current issues in the field of hospitality, travel and tourism. Topics vary. This course may be taken four times. Open entry/open exit on a space available basis with instructor approval. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A240—E-Marketing and Sales (3)

Focus is on strategic dimensions of contemporary marketing management. Concrete examples of hospitality and tourism marketing illustrate the practical application of theoretical marketing concepts including E-commerce and its influence in operational outcomes. This class also features guidelines for developing effective hospitality and tourism marketing strategies and programs. This course may also be offered online. Three hours lecture and one hour lab. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A265—Principles of Event and Meeting Management (1.5)

This course addresses successful business practices in event and meeting management. It provides knowledge essential 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 foundation for future coursework. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A266—Organize and Manage Events and Meetings (1.5)

A comprehensive, fast-paced, hand-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.**

Hospitality, Travel & Tourism A267—Managing Business Risks (1.50)

This course provides a thorough and systematic approach to risk management that ensures the understanding and use of safeguards to produce safe and successful meetings or events. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A268—Incentive Travel (1)

Advisory: Hotel Management A265, A266, A267, A270.

The course is designed to give the student an understanding of Incentive Travel and how it differs from all other forms of travel. It outlines the type of client and sales person who is likely to find Incentive Travel a motivational tool, why it is effective, how to return on investment (ROI) takes these programs popular. One hour. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A269—Destination Management (1)

Get the most comprehensive guide to destination management. From tours to transportation, from entertainment to local rules of etiquette, the Destination Management Company (DMC) is the premier resource that finds the right venue, location, speaker, and vendor to ensure a highly professional and successful program. This course may also be offered online. One hour. **Transfer Credit: CSU.**

Course changed from HTEL A270.

Hospitality, Travel & Tourism A270—Meeting and Event Marketing and Sales (1.50)

This course examines essential techniques for successful promotion of products and services. An emphasis is placed on the hotel, meeting, and event environments. Creative ideas and practical tools learned will help increase the effectiveness of the marketing dollar. This course may also be offered online. **Transfer Credit: CSU.**

Course Changed from HTEL A272

Hospitality, Travel & Tourism A271—Corporate Meetings & Events (1.00)

Review of the most successful techniques for managing trade shows, sales promotion events, staff meetings, and other corporate events. Focus is placed on how to produce meetings/events with creative flair while staying within a budget. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A272—Meeting/Conference Practices (1.00)

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) examinations. This course may also be offered online. **Transfer Credit: CSU.**

Course Changed from HTEL A276

Hospitality, Travel and Tourism A273—Sport Event Management (1)

Promoting and managing large and small sporting events including event logistics, sponsorship, successful marketing strategies and professional management skills. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel and Tourism A274—Establish and Operate an Event Business (1)

This course covers the practical skills necessary to launch, operate, and grow a successful event management business. Focus is placed on how to develop a business plan, manage finances, market, and approach event management as a small profit-making business. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel and Tourism A275—Event Fund-Raising and Sponsorship (1)

Provides a comprehensive plan for identifying, evaluating, soliciting, selling, managing, and coordinating long-term fund-raising and/or sponsorship deals. Develop skills to manage events and work successfully as a staff professional or volunteer. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A276—Expo/Trade Show Management Promotion (1.00)

This course provides information for designing and managing projects from a trade show exhibit to planning and coordinating an entire exposition. Focus is placed on the growing role of expositions and trade shows in the marketing and sales processes both nationally and internationally. This course may also be offered online. **Transfer Credit: CSU.**

Course Changed from HTEL A277

Hospitality, Travel & Tourism A277—Wedding Planning as a Business (1.00)

This course will assist in developing elements of design, coordination, and execution in preparing and planning weddings. Career opportunities in the lucrative bridal industry will also be discussed. This course may also be offered online. **Transfer Credit: CSU.**

Course Changed from HTEL A278

Hospitality, Travel & Tourism A278—Catering Design/Management (1)

This course addresses elements of successful catering operations. Students will explore the catering industry and learn to work with catering professionals to improve quality while reducing costs. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A279—Internship 2 (4)

Prerequisite: Hospitality, Travel & Tourism A116.

Advanced internship for students enrolled in Hotel Management, Spa Management, and Travel and Tourism programs at Orange Coast College to increase their level of expertise in the area of specialization which they expect to graduate. The internship is repeated for each option the student elects in order to earn a certificate or AS degree. Students will be required to follow standards set by the company in which they are working. This course may also be offered online. This course may be taken four times. Two hours lecture, eight hours unpaid, twelve hours paid. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A280—Event Meeting and Spa Practicum (3)

Prerequisite: Meeting & Event - Hotel Management A265, A266, A267, and A270 or Spa Management - Hospitality, Travel & Tourism A160, A165, A170, A175.

An internship opportunity for students completing their practicum experience for the Meeting and Event Management Certificate of Specialization. Students who desire to acquire additional certificates in additional areas of specialization must choose another set of electives. Students will be required to follow standards set by the company for which they are working. May be repeated for each certificate. This course may also be offered online. This course may be taken four times. One hour lecture, eight hours unpaid, twelve hours paid. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A281—Leadership Development (2)

Advisory: Hospitality, Travel & Tourism A282 or concurrent enrollment.

Formerly Management Skill Development

An in-depth study of the skills required to be an effective manager. The course covers the roles, responsibilities, situations, and personal styles of decision-making in hospitality, airline, travel, and tourism industries while putting quality management tools into action to enhance service and improve business. This course may also be offered online. Two hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A282—Supervisory Skill Development (1.5)

Advisory: Hotel Management A110 or Hospitality, Travel & Tourism A288 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, airline, spa, travel, or tourism industries. This course may also be offered online. One and one-half hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A285—Hospitality Operations (3.00)

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, empowerment, goal setting, high-performance teams, diversity, managing organizational change, and strategic career planning. This course may also be offered online. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A286—Hospitality, Travel & Tourism Law (3)

This course provides an awareness of the rights and responsibilities the law grants to or imposes upon hospitality, travel and tourism 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. This course is certified through the American Hotel & Lodging Association. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A288—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, with focus on corporate/ organizational culture. This course is certified through the American Hotel & Lodging Association. This course may also be offered online. Three hours lecture, one hour lab. **Transfer Credit: CSU.**

Hospitality, Travel & Tourism A290—California Labor Law (3)

California labor and employment law including legislation, court cases and regulatory requirements. Organized to make complex laws understandable. Topics include Unemployment Insurance, State Disability, Family/ Medical and Sick Leaves, Workers' Compensation, Training, Personnel Records, Privacy, Wage & Hour Laws, Compensation, Exempt/Non-Exempt. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

HOTEL MANAGEMENT

Hotel Management A110—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 lecture, one hour lab. **Transfer Credit: CSU.**

Hotel Management A130—Guest Services (1)

Advisory: Hotel Management A110 or concurrent enrollment.

This course educates students on how concierge, bell, valet, courtesy van staff, and security personnel make guests feel safe and at home. Dramatizes how to promote your property's revenue-generating facilities and increase job performance while by increasing professionalism. This course is certified through the American Hotel & Lodging Association. This course may also be offered online. One hour lecture and one-half hour non-lecture. **Transfer Credit: CSU.**

Hotel Management A260—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 A260. Students completing Hotel Management A260 may not receive credit for Food Service Management A260. Three hours. **Transfer Credit: CSU.**

HUMAN DEVELOPMENT

Human Development A180—Child Development (3)

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 A182—Middle Childhood Development and Guidance (3)

Growth and development of the child from 5 1/2 years of age including physical, cognitive, and psychosocial development, and techniques for guidance of the school age child. Focus is on identifying common developmental qualities of school-age children and find positive approaches to individual, group, and environmental management. Three hours. **Transfer Credit: CSU.**

Human Development A184—Infant Development and Relationships (3)

Growth and development of the child from birth to two years: current theories and adult-infant relationships along with practical applications for relating to and caring for infants. Three hours. **Transfer Credit: CSU.**

Human Development A190—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 A210—Introduction to the Exceptional Child (3)

Prerequisite: Human Development A180.

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 A280—Language and Literacy Development (3)

Prerequisite: Human Development A180 or A182.

Comprehension and production of language. Emphasis on literacy and language development birth through age eight. 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 A100—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Humanities A101—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Humanities A101H—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

INTERIOR DESIGN

Interior Design A050—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 pass-no pass basis only. This course may be taken four times. One and one-half hours to six hours arranged. Not applicable to AA or AS degree.

Interior Design A100—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 materials and products used in interior environments will be emphasized for functional, economic, and aesthetic qualities. Evaluation of color theories, space planning, floor plans, lighting, environmentally responsible design, accessibility, and the design process will be introduced. Three hours. **Transfer Credit: CSU.**

Interior Design A105—Interior Design Studio 1 (2)

Prerequisite: Interior Design A100 or concurrent enrollment.

This studio course will apply concepts and theories presented in the lecture course, Interior Design A100. Therefore, it is recommended that this course be taken concurrently. Emphasis is placed on the application of design principles and elements and the design process in developing solutions for residential interior design projects. **Transfer Credit: CSU.** One hour lecture, three hours studio. **Transfer Credit: CSU.**

All courses numbered A100 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.

Interior Design A120—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 A150—Interior Materials and Products (3)

Analysis, application, and evaluation of products and materials used in interior design. Includes interior textiles, furnishings, and finish materials and products and specifications. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Interior Design A170—Space Planning (3)

Advisory: Interior Design A100 and Architectural Technology A105.

The application of programming, theory, and techniques in residential and commercial space planning. Drawing and planning process techniques are emphasized in the studio. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Interior Design A175—Applied Color and Design Theory (3)

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 A175. Students completing Interior Design A175 may not receive credit for Fashion A175. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Interior Design A180—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 A190—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 A200—Interior Illustration (3)

Prerequisite: Interior Design A105, Architectural Technology A105.

Advisory: Interior Design A175.

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 A210—Fundamentals of Lighting (3)

Prerequisite: Interior Design A100 and Architectural Technology A105.

Advisory: Interior Design A170.

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 A215—Interior Design Studio 2 (3)

Prerequisite: Interior Design A170.

Advisory: Interior Design A210.

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 A220—Interior Design Construction Documents (3)

Prerequisite: Architectural Design A105 and Drafting Technology A150.

Advisory: Interior Design A215.

A drafting course emphasizing the legal nature and scope of construction drawings, specifications, codes, products, materials, and equipment used for interior design projects. **Transfer Credit: CSU.**

Interior Design A230—Business and Professional Practice (3)

Advisory: Interior Design A100 and A120.

The business and professional management of an interior design practice including legal issues, project management, and business practices. Three hours. **Transfer Credit: CSU.**

Interior Design A240—Interior Design Internship (4)

Prerequisite: Interior Design A170, Interior Design A210 and A215 or concurrent enrollment.

Advisory: Drafting Technology A150 and A180.

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 A250—Codes and Building Systems (2)

Advisory: Interior Design A215.

This course examines the building code relative to Interior Design and Architecture. Construction materials and building systems including structural, mechanical, electrical, plumbing and lighting are analyzed in conjunction with the code. This course may also be offered online. **Transfer Credit: CSU.**

Interior Design A260—Digital Visualization Methods (2)

Advisory: Drafting Technology A150 and Interior Design A170.

Application of the methods, techniques, and tools used for illustrating interior spaces two and three-dimensionally through the use of technology/software programs. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Interior Design A265—Interior Design Studio 3 (3)

Prerequisite: Interior Design A215.

Advisory: Interior Design A210 and A260.

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. Two hours lecture, three hours studio. **Transfer Credit: CSU.**

Interior Design A275—Interior Design Studio 4 (3)

Prerequisite: Interior Design A215.

Advisory: Interior Design A210 and A260.

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. Two hours lecture, three hours studio. **Transfer Credit: CSU.**

INTERNSHIP ACADEMY

Internship A392—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. This course may be taken two times. Three and one-half to sixteen and one-half hours. **Transfer Credit: CSU.**

Internship A393—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. This course may be taken two times. Three and one-half to sixteen and one-half hours. **Transfer Credit: CSU.**

ITALIAN

Italian A180—Elementary Italian (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in Italian, with an introduction to cultures related to the Italian language. This course is equivalent to two years of high school Italian. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Italian A185—Elementary Italian (5)

Prerequisite: Italian A180 or completion of two years of high school Italian with a grade of 'C' or better.

Continuation of Italian A180, with further development of listening, speaking, reading, and writing proficiency, and additional exploration of cultures related to the Italian language. This course is equivalent to three years of high school Italian. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Italian A199—Current Topics in Italian (1-5)

Prerequisite: One semester of college-level Italian.

Development of listening, speaking, reading, and writing proficiency in Italian. Extensive exposure to cultures related to the Italian language through authentic materials and group discussions on a variety of topics ranging from current events to global issues. Emphasis on cross-cultural understanding. Content differs each time. This course may be taken four times. May be taken for grades or on a pass-no pass basis. One to five hours. **Transfer Credit: CSU.**

Italian A280—Intermediate Italian (4)

Prerequisite: Italian A185.

Continuation of Italian A185, with further development of language skills at the intermediate level and exploration of cultures related to the Italian language. Additional emphasis on reading and writing, with an introduction to selected literary works. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

Italian A285—Intermediate Italian (4)

Prerequisite: Italian A280.

Continuation of Italian A280, with further refinement of language skills at the intermediate level and investigation of cultures related to the Italian language in preparation for higher level specialized work. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

JAPANESE

Japanese A180—Elementary Japanese (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in Japanese, with an introduction to cultures related to the Japanese language. This course is equivalent to two years of high school Japanese. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Japanese A185—Elementary Japanese (5)

Prerequisite: Japanese A180 or completion of two years of high school Japanese with a grade of 'C' or better.

Continuation of Japanese A180, with further development of listening, speaking, reading, and writing proficiency, and additional exploration of cultures related to the Japanese language. This course is equivalent to three years of high school Japanese. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Japanese A280—Intermediate Japanese (5)

Prerequisite: Japanese A185.

Continuation of Japanese A185, with further development of language skills at the intermediate level and exploration of cultures related to the Japanese language. Additional emphasis on reading and writing. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Japanese A285—Intermediate Japanese (5)

Prerequisite: Japanese A280.

Continuation of Japanese A280, with further refinement of language skills at the intermediate level and additional investigation of cultures related to the Japanese language. Continued emphasis on reading and writing. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

JOURNALISM

(Formerly Communications)

Journalism A110—News Writing and Reporting (3)

Prerequisite: English A100, 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. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Journalism A111—Editing and Production Skills (1)

Prerequisite: English A100.

Beginning journalists will acquire skills in copy editing and newspaper production. Students will use the Associated Press Stylebook, and learn various editing marks, beginning page layout. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Journalism A115—Newspaper Production (3-7)

Prerequisite: Journalism A110 or concurrent enrollment.

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 pass-no pass basis. This course may be taken four times. Two hours lecture, five to seventeen hours non-lecture. **Transfer Credit: CSU.**

Journalism A116—Multi-Media Reporting and Producing (3-5)

Working in conjunction with the Coast Report staff, students will acquire the skills needed to research, write and produce multi-media stories for posting on CoastReportOnline.com. Students will also cover basic news and feature writing, news judgment, editing and hardware and software skills specific to news websites. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two hours lecture, five to ten hours non-lecture. **Transfer Credit: CSU.**

Journalism A117—Feature Writing (3)

Prerequisite: Journalism A110 and English A100 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. Same as English A117. Students completing Journalism A117 may not receive credit for English A117. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three hours. **Transfer Credit: CSU.**

Journalism A185—Photojournalism (3)

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. This course may be taken two times. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Journalism A186—Advanced Photojournalism (3)

Prerequisite: Journalism A185.

This course is a continuation of Journalism A185. Instruction is offered at intermediate/advanced and advanced levels with emphasis on publication in the Coast Report and other venues. This course may be taken two times. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Journalism A215—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 papers. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour. **Transfer Credit: CSU.**

LEADERSHIP STUDIES

Leadership Studies A180—Personal Leadership (3)

Introduction to the concepts and personal skills related to leadership on campus, the community, and business. 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. An introductory course of the leadership studies program. Three hours. **Transfer Credit: CSU.**

Leadership Studies A200—Organizational Leadership (3)

Learn to provide leadership to business, community, and governance organizations. Three hours. **Transfer Credit: CSU.**

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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.

LEARNING SKILLS

Learning Skills A001—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, writing and arithmetic. This is an open entry/open exit course. Offered on a pass-no pass basis only. This course may be taken four times. Not applicable to AA or AS degree.

LIBRARY AND MEDIA SERVICES

Library and Information Competency A100—Library and Information Competency (1)

Learn how to cope with the ever expanding world of information through the use of the library and information resources. Develop skills in searching, using, evaluating, and citing print, electronic, and web resources. After registration, report to the instruction librarian for course orientation. Open entry/open exit class. This course may also be offered online. **Transfer Credit: CSU; UC.**

MANUFACTURING TECHNOLOGY

(formerly Machine Technology)

Machine Technology A100—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. This course may be taken four times. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Machine Technology A105—Lathe (5)

Advisory: Machine Technology A100, A120 and A121.

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. This course may be taken two times. Three hours lecture, five hours laboratory. **Transfer Credit: CSU.**

Machine Technology A110—Milling Machine (5)

Advisory: Machine Technology A100 and A120.

A basic course in milling machine operations to include both vertical and horizontal milling usage, theory, and usage of tools and accessories. Safety is also emphasized. This course may be taken four times. Three hours lecture, five hours laboratory. **Transfer Credit: CSU.**

Machine Technology A115—Production Machining Techniques (2.5)

Prerequisite: Machine Technology A100 and A105 and A110 or permission of instructor.

This course emphasizes production machining. Set up and running of more than one part on a variety of machines including but not limited to engine lathe, chucker lathe, ID and OD grinder, vertical mill and horizontal mill. This course may be taken four times. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Machine Technology A120—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. This course may be taken two times. Three hours. **Transfer Credit: CSU.**

Machine Technology A121—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 as used in the machining industries. This course may be taken two times. Three hours. **Transfer Credit: CSU.**

Machine Technology A125—Computerized Numerical Control Machine Operation (3)

Advisory: Machine Technology A105 and A110.

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 A126—CNC Operation 2 (2)

Advisory: Machine Technology A125 or instructor approval.

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 A130—Introduction to Computerized Numerical Control and Manual Programming (4)

Advisory: Machine Technology A105 and A110 or approval of instructor.

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 A133—CNC Programming-Mastercam 1 (3)

Advisory: Computer and High Technology A100 or Computer Information Systems A100 or Machine Technology A130.

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. This course may be taken two times. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Machine Technology A134—CNC Programming-Mastercam 2 (3)

Prerequisite: Machine Technology A133.

Advanced CNC programming using Mastercam to program CNC machines. Instruction emphasizes complex cutter movement and surfacing. This course may be taken two times. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Machine Technology A141—Mastercam Lathe (1.5)

Prerequisite: Machine Technology A133.

A course designed for students who have completed the basic Mastercam class, Machine Technology A133, and wish to have concentrated instruction on CNC lathe programming on lathe only. This course may be taken two times. One hour lecture, one hour laboratory. **Transfer Credit: CSU.**

Machine Technology A142—Mastercam Solids (2)

Prerequisite: Machine Technology A133.

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. This course may be taken two times. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Machine Technology A150—Tool and Cutter Grinding (2.5)

Advisory: Machine Technology A100.

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. This course may be taken two times. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Machine Technology A175—Dimensioning and Tolerancing (3)

Advisory: Machine Technology A120.

A course in reading and using Reference (SME Y-14.5-1994) standards for geometric dimensioning and tolerancing. This course may be taken two times. Three hours.

Transfer Credit: CSU.

Machine Technology A190—Elementary Metallurgy (2)

An elementary course describing the relationship between microstructure, composition, heat, and mechanical treatment and physical properties of metal and alloys; their relationship to design and machining. This course may be taken two times. Two hours. **Transfer Credit: CSU.**

Machine Technology A195—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 A200—Tooling (2.5)

Advisory: Machine Technology A100, A105, A110, and A120.

A basic course in the making of jigs, fixtures, and molds. This course may be taken two times. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

MANAGEMENT

Management A100—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.**

Management A115—Human Relations and Supervision (3)

A behavior 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. 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 A239—Professional Communication (3)

Study of communication functions, choices, and roles for professionals in business. Practice in using verbal, nonverbal, and writing skills to communicate one-on-one, electronically, and in groups. Same as Business A239. Students completing Management A239 may not receive credit for Business A239. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

MARINE ACTIVITIES

Marine Activities A147—Introduction to Sailing (1)

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 A147. Students completing Marine Activities A147 may not receive credit for Physical Education A147. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Marine Activities A148—Introduction to Keel Boats (1)

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.

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 A148. Students completing Marine Activities A148 may not receive credit for Physical Education A148. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Marine Activities A149—Introduction to Ocean Sailing (1)

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.

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 A149. Students completing Marine Activities A149 may not receive credit for Physical Education A149. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Marine Activities A150—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. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Marine Activities A151—Maritime Industry (2)

Students will learn about marine industry careers, maritime terminology, types of vessels and vessel protocol. Job skills and career paths for the marine industry are covered. Personal conduct, customer service skills, resume writing and interviewing skills are included to improve employment opportunities. This is a required course of the Professional Mariner Program. A facility fee will be charged for field trips. This course may be taken two times. Two hours. **Transfer Credit: CSU.**

Marine Activities A152—Boat Handling and Seamanship (3)

Prerequisite: Student must be able to swim 50 yards, tread water for 10 minutes.

Students learn safe boating practices and regulations. Practical training while operating small motor boats includes docking procedures, underway maneuvering, anchoring and overboard rescue drills. Time on the water provides experience in crew teamwork, standing watch, maintaining a lookout and general seamanship. This is a required course of the Professional Mariner Program. A facility fee will be charged. This course may be taken two times. **Transfer Credit:** CSU.

Marine Activities A153—Marine Basic Safety Training (4)

Prerequisite: Student must be able to swim 50 yards, tread water for 10 minutes.

This course is the basic safety training (BST) as specified by the U.S. Coast Guard. Basic firefighting, personal survival, personal safety, social responsibility, and first aid in marine situations are covered in this hands-on program. Students with satisfactory level of completion will be qualified for First Aid, CPR and USCG STCW-95 certificates. This is a required course of the Professional Mariner Program. A facility fee will be charged. This course may be taken two times. **Transfer Credit:** CSU.

Marine Activities A154—Yachtkeeping and Engine Maintenance (2)

This course offers hands-on experience in Yachtkeeping; cleaning interior & exterior surfaces. Students will learn the practical operation and routine maintenance of mechanical systems aboard vessels, diesel inboard engines and gasoline outboard engines. Skills practiced include painting, varnishing and routine engine maintenance. This is a required course of the Professional Mariner Program. This course may be taken two times. **Transfer Credit:** CSU.

Marine Activities A155—Navigation for Deckhands (2)

This course prepares the deckhand for safe and competent operation of vessels entering and leaving harbors, steering to a compass course and avoiding collision. Basic navigation skills, marine communication with VHF radio, electronic instrumentation and lookout responsibilities are introduced. This is a required course for the Professional Mariner Program. A facility fee will be charged. This course may be taken two times. **Transfer Credit:** CSU.

Marine Activities A156—Maritime Environment (2)

Students will learn about the systems that drive global weather patterns and conditions commonly found along major shipping routes as well as hubs of recreational yachting. Global and regional physical oceanography will be covered as it relates to navigational challenges to the mariner. Understanding oceanography and weather will aid the student in understanding pollution regulations and the responsibilities of the mariner to the environment in which he or she works. This is a required course of the Professional Mariner Program. A facility fee will be charged for field trips. This course may be taken two times. **Transfer Credit:** CSU.

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Marine Activities A159—Outrigger Canoeing (.5-1.5)

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.

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 A159. Students completing Marine Activities A159 may not receive credit for Physical Education A159. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-.75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit:** CSU; UC.

Marine Activities A160—Kayaking (.5-1.5)

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.

Designed to teach the 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 A160. Students completing Marine Activities A160 may not receive credit for Physical Education A160. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-.75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit:** CSU; UC.

MARINE SCIENCE

Marine Science A100—Oceanography (3)

Advisory: English A098 or ESL A199.

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. **Transfer Credit:** CSU; UC.

Marine Science A100H—Honors Oceanography (3)

Advisory: English A098 or ESL A199.

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. **Transfer Credit:** CSU; UC.

Marine Science A100L—Oceanography Laboratory (1)

Prerequisite: Marine Science A100 with a grade of "C" or better or concurrent enrollment. If student drops from Marine Science A100, the student, on their own initiative, must also drop Marine Science A100L.

Advisory: English A098 or ESL A199.

An orientation to marine science research process, techniques, and equipment. Investigations of physical and chemical properties of the sea, the air/sea interface, biological taxonomy and classification, student of longitude, latitude, other navigational elements, ocean basin geography and geology study. Evaluation of the sea as a physical, chemical, biological, and recreational resource. Includes at least three class field trips. Three hours laboratory. **Transfer Credit:** CSU; UC.

Marine Science A100M—Honors Oceanography Laboratory (1)

Prerequisite: Marine Science A100 with a grade of "C" or better or concurrent enrollment. If student drops from Marine Science A100, the student, on their own initiative, must also drop Marine Science A100M.

Advisory: English A098 or ESL A199.

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 A120—Marine Aquarium Science (1)

Prerequisite: Marine Science A100 or concurrent enrollment.

Advisory: English A098 or ESL A199.

Introduces students to the science of Aquarimology and provides experience working in a small public aquarium, under the supervision of the instructor and designated student aquarium managers. Students will learn basics of animal husbandry, disease control, aquarium water chemistry, methods of filtration, feeding, and cleaning. One hour lecture, two hours non-lecture. **Transfer Credit:** CSU. **Transfer Credit:** CSU.

Marine Science A180—Marine Biology (3)

Prerequisite: Marine Science A100.

Advisory: English A098 or ESL A199.

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. This course may also be offered online. Three hours. Transfer Credit: CSU; UC. **Transfer Credit:** CSU; UC.

Marine Science A180L—Marine Biology Lab (1)

Prerequisite: Marine Science A180, or concurrent enrollment.

Advisory: English A098 or ESL A199.

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. Three hours non-lecture. **Transfer Credit: CSU; UC.**

Marine Science A185—Coastal Oceanography (3)

Prerequisite: Marine Science A100 and A185 or concurrent enrollment.

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 pass-no pass basis. This course may be taught online. Three hours. **Transfer Credit: CSU; UC.**

Marine Science A185L—Coastal Oceanography Lab (1)

Prerequisite: Marine Science A100. Marine Science A185, 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 pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Marine Science A187—Marine Mammals (3)

Prerequisite: Marine Science A100.

Advisory: Marine Science A180 and A185 and English A098 or ESL A199.

Explores the natural history, ecology, population dynamics, evolutionary history, communications, energetics, migrations, intelligence, and conservation of marine mammals – including: whales, dolphins, seals, sea lions, walrus, sea cows, sea otters, and polar bears. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

MARKETING

Marketing A100—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 A110—Professional Selling (3)

Theory and practices of the relational selling process. Covers the basic steps in organizing, developing, and preparing a professional sales presentation. Builds self-confidence and competence in selling oneself as well as products, service, and ideas. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Marketing A130—Principles of Advertising (3)

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, and the role of research, media playing, advertising strategy and coordination with other elements of marketing. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Marketing A142—Direct Mail and Marketing (1.5)

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 A150—International Marketing (3)

A survey of major international marketing topics of interest to international business students and practitioners. Studies include: tools used by global marketers; institutions and environmental forces impacting the marketing process worldwide; and effective strategic planning for global markets. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Marketing A152—Export-Import Procedures (3)

A practical "how to" approach to import-export studies. Documentation practices and procedures used in international trade and U.S. laws and regulations affecting global commerce are included. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Marketing A200—Retail Store Management (3)

Study of the operations of an established retail business. Problems of merchandising include buying, pricing, stock control, credit, credit control, and human resource management. Emphasis on solution of actual retail problems using the case study method. Three hours. **Transfer Credit: CSU.**

Marketing A220—Retail Buying (3)

Advisory: Mathematics A010 or Business A125.

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.**

MASS COMMUNICATIONS

Mass Communications A100—Introduction to Mass Communications (3)

A survey of major mass mediums and their influence on the artistic and cultural expression of contemporary society. Appreciate the aesthetics of and evaluate radio, television, film, print media, and Internet. Advertising, PR, media law and ethics are covered. Students learn analytical skills to help become critical consumers/developers of media. Three hours. **Transfer Credit: CSU; UC.**

Mass Communications A140—Public Relations (3)

Advisory: English A100.

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 A140. Students completing Mass Communications A140 may not receive credit for Business A140. 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 A021 and Business A125, 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 A005—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 pass-no pass basis. Three hours. Not applicable to AA or AS degree.

***Mathematics A008—Pre-Algebra (3)**

Prerequisite: Math A005 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 pass-no pass basis. Three hours. Not applicable to AA or AS degree.

***Mathematics A010—Elementary Algebra (4)**

Prerequisite: Math A008 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 pass-no pass basis. Four hours.

*Mathematics A020—Plane Geometry (3)

Prerequisite: Math A010 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, inequities, and solid geometry will be covered. May be taken for grades or on a pass-no pass basis. Three hours.

*Mathematics A030—Intermediate Algebra (4)

Prerequisite: Math A010 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 pass-no pass basis. Four hours.

Mathematics A070—Intermediate Algebra and Trigonometry (5)

Prerequisite: Math A010 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Advisory: Mathematics A020.

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 pass-no pass basis. Five hours.

Mathematics A100—Liberal Arts Mathematics (3)

Prerequisite: Math A030 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Mathematics A103—Activity-Based Statistics for Teachers (3)

Prerequisite: Math A030 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 pass-no pass basis. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

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Mathematics A104—Mathematics for Elementary Teachers 1 (3)

Prerequisite: Math A030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Advisory: Math A020.

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 pass-no pass basis. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Mathematics A106—Mathematics for Elementary Teachers 2 (3)

Prerequisite: Math A104 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 pass-no pass basis. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

*Mathematics A120—Trigonometry (3)

Prerequisite: Math A030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Advisory: Mathematics A020.

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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Mathematics A130—College Algebra (4)

Prerequisite: Math A030 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 A157 but does not provide sufficient preparation to enter Math A180. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

Mathematics A154—Finite Mathematics with Applications (4)

Prerequisite: Math A030 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 pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

Mathematics A157—Calculus for Biological, Management and Social Sciences (4)

Prerequisite: Math A130 or A154 or A170 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A160—Introduction to Statistics (3)

Prerequisite: Math A030 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 A160 may petition for credit for Psychology A160. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Mathematics A160H—Honors Introduction to Statistics (3)

Prerequisite: Math A030 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Mathematics A170—Precalculus Mathematics (4)

Prerequisite: Math A070 or A120 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 A180. This course may also be taken online. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A180—Calculus 1 (4)

Prerequisite: Math A170 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A180H—Honors Calculus 1 (4)

Prerequisite: Math A170 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A182H—Honors Calculus 1 and 2 (5)

Prerequisite: Math A170 with grade of 'C' or better and either advanced placement calculus in high school or Mathematics A157 or A180 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 content of Math A180 and Math A185 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A185—Calculus 2 (4)

Prerequisite: Math A180 or A180H 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A185H—Honors Calculus 2 (4)

Prerequisite: Math A180 or A180H 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A220—Introduction to Symbolic Logic (3)

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 A220. Students completing Math A220 may not receive credit for Philosophy A220. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Mathematics A230—Discrete Mathematics (5)

Prerequisite: Math A182H or A185 or A185H 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A235—Applied Linear Algebra (3)

Prerequisite: Math A185 or A185H or A182H 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 pass-no pass basis. Four hours. **Transfer Credit: CSU; UC.**

Mathematics A260—Probability (3)

Prerequisite: Math A182H or A180 or A157 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Mathematics A280—Calculus 3 (4)

Prerequisite: Math A182H, A185 or A185H 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A280H—Honors Calculus 3 (5)

Prerequisite: Math A182H or A185 or A185H with grade of 'C' or better.

Mathematics A280 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 pass-no pass basis. Six hours. **Transfer Credit: CSU; UC.**

Mathematics A285—Introduction to Linear Algebra and Differential Equations (4)

Prerequisite: Math A182H or A185 or A185H 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Mathematics A285H—Honors Introduction to Linear Algebra and Differential Equations (5)

Prerequisite: Math A182H or A185 or A185H 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 pass-no pass basis. Six hours. **Transfer Credit: CSU; UC.**

Mathematics A290H—Honors Introduction to Tensors and Calculus on Manifolds (5)

Prerequisite: Math A280 or A280H AND A285 or A285H 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 pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

MEDICAL ASSISTING

Medical Assisting A115—Medical Bookkeeping (4)

Terminology, techniques, application, and 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 A115. Students completing Medical Assisting A115 may not receive credit for Accounting A115. Four hours. **Transfer Credit: CSU.**

Medical Assisting A135—Clinical Lab Procedures (2)

Prerequisite: Allied Health A111.

Basic microbiology and methods of collecting and conducting routine tests on blood and urine as performed in a medical office. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

Medical Assisting A175—Introduction to Medical Assisting and Transcription (3)

Prerequisite: Allied Health A111 or concurrent enrollment.

Introduction to the role of the medical assistant and transcriptionist in health care delivery, medical ethics/law, records management, pharmacy and communications. Three hours. **Transfer Credit: CSU.**

Medical Assisting A185—Medical Insurance Billing (3)

Prerequisite: Allied Health A111.

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 A186—Administrative Experience (2) (9 week course)

Prerequisite: Medical Assisting A115, A175, A185 and Business A138 or concurrent enrollment.

Supervised administrative medical assisting experience in a medical office, clinic, or related outpatient facility. One half hour lecture, eight hours externship. **Transfer Credit: CSU.**

Medical Assisting A281—Clinical Experience (2) (8 week course)

Prerequisite: Medical Assisting A135, A286, A287, A288 and A289.

Supervised clinical medical assisting experience in a medical office, clinic, or related outpatient facility. One hour lecture, sixteen hours clinical. **Transfer Credit: CSU.**

Medical Assisting A286—Medications and Injections (1) (8 week course)

Prerequisite: Allied Health A111 and Medical Assisting A175.

Methods of handling medications and instruction in techniques of intramuscular, subcutaneous, and intradermal injections. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Medical Assisting A287—General Physical and Specialty Exams (1.5) (8 week course)

Prerequisite: Allied Health A111 and Medical Assisting A175.

Theory and techniques in preparation of patients for general physical examinations, pediatric exams, obstetrical exams, gynecological exams, EENT exams, urological exams, and exams of the colon and rectum. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Medical Assisting A288—Sterile Techniques and Minor Surgery (1) (8 week course)

Prerequisite: Allied Health A111 and Medical Assisting A175.

Sterilization techniques and methods of assisting a physician with minor surgery in a medical office or clinic. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

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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.

Medical Assisting A289—Medical Assisting Specialty Procedures (1) (8 week course)

Prerequisite: Allied Health A111 and Medical Assisting A175.

Basic concepts of preparing patients for special diagnostic tests and techniques in the medical office including pulmonary function, and electrocardiography. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

MEDICAL TRANSCRIPTION

Medical Transcription A190—Beginning Medical Transcription (3)

Prerequisite: Allied Health A111 or concurrent enrollment.

Advisory: 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 A195—Medical Transcription 2 (2)

Prerequisite: Medical Transcription A190.

Instruction and experience in advanced medical transcription procedures. One hour seminar, three hours laboratory. **Transfer Credit: CSU.**

METEOROLOGY

(See Aviation Pilot Training A133)

MUSIC

Music A100—History and Appreciation of Music (3)

A survey of Western Classical Music. The students will gain an appreciation of music from Medieval to the Modern period. The class will cover the stylistic features of musical genres from the six major historical periods of Western Music. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Music A101—Musicianship and Ear Training (2)

Prerequisite: Minimum musical experience and ability to read simple music is suggested.

A study of scales, rhythm, sight singing and musical interval recognition. Students will learn to identify, perform, and notate melodic and rhythmic musical phrases. This

course includes computer assisted aural learning. This course may be taken two times. Two hours. **Transfer Credit: CSU; UC.**

Music A102—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 pass-no pass basis. This course may be taken four times. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Music A105—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Music A109—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, 1950s through modern rock. CDs, videos, computer-generated multimedia presentations. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Music A115—Fundamentals of Music (3)

For those with no previous music 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 A116—Basic Guitar (2)

Advisory: Students provide their own acoustic nylon or steel-string guitar.

Fundamentals of guitar, music and musicianship. Music notation, terminology, scales, key signatures and time signatures. Basic guitar chords, rhythms and fingering techniques. Beginning level classical, folk and popular guitar literature. May be taken for grades or on a pass-no pass basis. One and one-half hours lecture, one and one-half hours studio. **Transfer Credit: CSU; UC.**

Music A120—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. This course may be taken four times. Three hours. **Transfer Credit: CSU; UC.**

Music A122—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 con-

certs on and off campus. Occasional brief section rehearsals. Schedule of performances announced at the beginning of each semester. This course may be taken four times. One and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

Music A127—Jazz Lab Ensemble (1)

Prerequisite: Eligibility based on successful audition.

Study and performance of modern big band jazz music. Special emphasis on ensemble skills for rehearsal and concerts. Public performances with guest artists will be scheduled during each semester. Guest jazz artists will meet and work with the group periodically. This course may be taken four times. Three hours non-lecture, one hour arranged. **Transfer Credit: CSU; UC.**

Music A129—Guitar Ensemble (1)

Advisory: Able to sight read standard musical notation on the guitar. Must provide own acoustic guitar.

Designed for guitarists who read standard musical notation. Rehearsal and performance of guitar ensemble literature from Renaissance to the present including music of the Baroque, Classical, Romantic and Modern eras. Students in this class will present a public concert with guest artists. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two hours. **Transfer Credit: CSU; UC.**

Music A132—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 pass-no pass basis. This course may be taken four times. Three hours non-lecture, one hour arranged. **Transfer Credit: CSU; UC.**

Music A133—Orchestra (1)

Prerequisite: Eligibility based on successful audition.

Rehearsal and performance of music from the standard symphonic orchestral literature. Open to advanced performers of string, brass, woodwind, and percussion instruments. Regularly scheduled public concerts during the school year. This course may be taken four times. Three hours non-lecture. **Transfer Credit: CSU; UC.**

Music A140—Beginning Instruments (2)

Elementary instruction on a selected orchestral instrument. This course may be taken two times. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

Music A141—Piano 1 (1)

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 A142—Piano 2 (1)

Prerequisite: Music A141 or audition.

Continuation of Music A141 (Piano 1). Rhythms through sixteen 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 A144—Popular Vocal Techniques (1.5)

Designed to meet the changing needs and challenges of performing currently popular singing styles including solo, group and background singing in jazz, rock, blues, country, folk and easy listening. Also covered are microphone technique, self accompaniment and popular music terminology. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, two hours studio. **Transfer Credit: CSU.**

Music A145—Voice 1 (1)

This course is for beginning singers. It prepares beginning singers voice for solo and group singing by improving breathing, vocal tone, range, agility, volume, diction, health, expression, and self confidence. Students will sing songs from musical theatre, film, folk, popular, and classical repertory, in English and students first language, memorized from printed music. One hour daily practice and attendance at one approved recital is required. A pianist accompanies classes. This course may be taken two times. One hour lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Music A146—Voice 2 (1)

This course is a continuation of Music A145 for singers with two years of choral experience or one semester of private lessons or voice class. It prepares for solo and group singing by improving breathing, vocal tone, range agility, volume, diction, health, expression and self-confidence at the second semester level. Sing songs from musical theatre, film, folk, popular, and classical repertory in English, Italian and students first language memorized from printed music. One hour daily practice and attendance at one approved voice recital required. This course may be taken three times. One hour lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Music A148—Classical Guitar 1 (2)

Group instruction in basic techniques for classical guitar including tuning, correct posture, left and right hand position, and sight reading. Students are required to perform selected classical pieces from memory. Recommended for those wishing instruction in finger-style guitar. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

Music A149—Classical Guitar 2 (2)

Prerequisite: Music A148 or audition.

Continuation of Classical Guitar 1 with emphasis on advanced classical guitar performance techniques and literature. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

Music A150—Intermediate Band/Orchestra (2)

Prerequisite: Music A140 or audition.

Intermediate instruction on a selected band or orchestral instrument. This course may be taken two times. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

Music A151—Studio Guitar 1 (1.5)

Prerequisite: Music A116 or audition.

Group instruction in studio guitar techniques including styles such as jazz, rock, and other popular genres. Chart reading, finger style guitar, and plectrum guitar are included. May be taken for grades or on a pass-no pass basis. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

Music A152—Studio Guitar 2 (1.5)

Prerequisite: Music A151 or audition.

Continuation of Studio Guitar 1. Group instruction in studio guitar techniques including styles such as jazz, rock, and other popular genres. Emphasis on picking technique, notes reading in positions, scales, chords, music theory, sight reading, solo and ensemble performance. May be taken for grades or on a pass-no pass basis. Three hours lecture/studio. **Transfer Credit: CSU; UC.**

Music A173—History of Jazz (3)

History and 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. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Music A180—Theory and Ear Training 1 (5)

Advisory: Ability to locate treble and bass clef pitches on a keyboard and name the notes.

The study of elementary tonal harmony and training. Includes the study of notation, terminology, scales, key signatures, intervals, triads, and rhythm. Also included is four-part writing with primary triads, seventh chord analysis, harmonization of melodies in major and minor keys and the use of basic song forms. Development of performing skills in aural dictation, sight singing, and rhythm performance is included. Correlation of harmony and ear training with history/literature, performance and listening applications for the transferring music major and music minor. Five hours. **Transfer Credit: CSU; UC.**

Music A185—Theory and Ear Training 2 (5)

Prerequisite: Music A180.

Continuation of Theory and Ear Training 1. Includes the study of inversions of triads and sevenths, non-harmonic tones, and harmonization of melodies using triads in inversion. Also includes development of performing skills in melodic dictation, sight singing, and rhythmic performance. Correlation of theory with history/literature, performance and listening applications for the transferring music major and minor. Five hours. **Transfer Credit: CSU; UC.**

Music A230—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 pass-no pass basis. This course may be taken four times. One hour lecture, two hours studio. **Transfer Credit: CSU; UC.**

Music A233—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 pass-no pass basis. This course may be taken four times. Three hours non-lecture, one hour arranged. **Transfer Credit: CSU; UC.**

Music A234—Studio Jazz Ensemble (1)

Prerequisite: Eligibility based on successful audition.

A group of advanced instrumentalists that will discuss, write, rehearse and perform modern big band jazz music. Emphasis on a laboratory environment that will stress articulation, phrasing, improvisation, ensemble skills, 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 pass-no pass basis. This course may be taken four times. Three hours studio. **Transfer Credit: CSU; UC.**

Music A236—Introduction to Sound Reinforcement (1.5)

Provides an introduction to the skills of concert sound reinforcement. This course includes academic theory as well as practical applications of sound reinforcement including microphone techniques, amplification, diagnostics and system design. There will be an opportunity for the student to engineer rehearsals and a concert performance. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

Music A240—Sophomore Recital (.5)

Prerequisite: Three semesters of Music A290 or audition.

Assists the sophomore music student to organize, arrange and schedule recital performance to meet department and Associate in Arts degree requirements. One hour studio. **Transfer Credit: CSU.**

Music A241—Piano 3 (2)

Prerequisite: Music A142 or audition.

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 A242—Piano 4 (2)

Prerequisite: Music A241 or audition.

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 A244—Voice 3-4 (1)

This course is the third and fourth semesters continuation of Music A146 for singers with two semesters of private lessons or voice class. It prepares for solo and group singing by improving breathing, vocal tone, range, agility, volume, diction, health, expression, and self-confidence. Students sing songs from musical theatre, opera, film, folk, popular, and classical repertory in English, Italian, German, French, and students first language memorized from printed music. One hour daily practice and attendance at one approved voice recital required. This course may be taken two times. One hour lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Music A248—Classical Guitar 3 (2)

Prerequisite: Music A149 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.**

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Music A249—Classical Guitar 4 (2)

Prerequisite: Music A248 or audition.

Designed for the serious classical guitar student who seeks more extensive awareness in technical facility, musical literature, musicianship and self discipline. Involves ensemble performance with an emphasis on technique and sight reading. A continuation of Music A248. Two hours lecture/studio. **Transfer Credit: CSU; UC.**

Music A261—Recording Techniques 1 (3)

A course in recording studio techniques based upon Pro Tools HD. An introductory workshop for musicians and sound engineers who will record, edit and produce live performances in a studio environment. Included is analysis of studio acoustics, vocal and instrumental recording and mixing board characteristics. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Two hours lecture, three hours studio. **Transfer Credit: CSU.**

Music A262—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 pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Music A265—Recording Techniques 2 (1.5)

An advanced course in recording studio techniques based upon Pro Tools HD. 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 materials including support musicians and production staff. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, five hours studio. **Transfer Credit: CSU.**

Music A271—Studio Guitar 3 (1.5)

Prerequisite: Music A152 or audition.

Continuation of Studio Guitar 1 and 2. Emphasis on linear note reading across the guitar fretboard, chord substitutions, altered chords, chordal progressions, turnarounds, music theory, chordal analysis, sight reading, ensemble and solo performance, arranging for solo guitar. May be taken for grades or on a pass-no pass basis. Three hours lecture-studio. **Transfer Credit: CSU; UC.**

Music A272—Studio Guitar 4 (1.5)

Prerequisite: Music A271 or audition.

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 pass-no pass basis. Three hours lecture-studio. **Transfer Credit: CSU; UC.**

Music A280—Theory and Ear Training 3 (5)

Prerequisite: Music A185.

Continuation of Theory and Ear Training 2. Includes the study of diatonic 7th chords and their inversions, secondary dominants, chord modulations, binary and song forms, and combining words and music. A continuation of the development of performing skills in aural dictation, sight singing and rhythm performance with particular focus on harmonic dictation of diatonic triads and their inversions. Five hours. **Transfer Credit: CSU; UC.**

Music A285—Theory and Ear Training 4 (5)

Prerequisite: Music A280.

Continuation of Theory and Ear Training 3. Includes the study of chromatic 7th chords and their inversions, predominant harmony, the Neapolitan and Augmented 6th chords. A continuation of the development of performing skills in aural dictation, sight singing and rhythm performance with particular focus on harmonic dictation of diatonic 7th chords and chromatic harmonies. Five hours. **Transfer Credit: CSU; UC.**

Music A290—Applied Music (2-4)

Prerequisite: Audition; concurrent enrollment in a music performing group.

Students will take private lessons in applied music, composition, theory, orchestration, arranging or computer music from an approved teacher. Students will participate in public performances. Students will be required to practice on campus, perform in a music performing group and attend on-campus music performances. This course may be taken four times. One hour lecture, five or ten hours non-lecture. **Transfer Credit: CSU; UC.**

NATURAL SCIENCE

Natural Science A100—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 pass-no pass basis. Six hours. **Transfer Credit: CSU; UC.**

Natural Science A100A—Natural Science Laboratory--Astronomy (1)

Prerequisite: Natural Science A100 or concurrent enrollment.

A beginning laboratory experience for natural science students with emphasis on outdoor astronomical observations and indoor analysis of experimental astronomical data. Same as Astronomy A100L. Students completing Natural Science A100A may not receive credit for Astronomy A100L. May be taken for grades or on a pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Natural Science A100G—Natural Science Laboratory--Geology (1)

Prerequisite: Natural Science A100 or concurrent enrollment.

Beginning laboratory experience for natural science students with emphasis on geology. Same as Geology A100L. Students completing Natural Science A100G may not receive credit for Geology A100L. May be taken for grades or on a pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Natural Science A112—Introduction to Physical Science (4)

Advisory: Mathematics A030.

An introduction to the basic physical principles that govern the universe. This course will present an overview of the general aspects of physics and chemistry including: forces, motion, energy, electricity, heat, sound, light, the atom, acids and bases. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

NEURODIAGNOSTIC TECHNOLOGY

Neurodiagnostic Technology A110—Basic Electroencephalography (4)

Prerequisite: Allied Health A010.

Advisory: Technology A040.

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 limited 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 A115—Advanced Electroencephalography (4)

Prerequisite: Neurodiagnostic Technology A110, Allied Health A130.

Introduction to the abnormal electroencephalogram (EEG), maturational changes, and the basic electronic principles upon which successful electroencephalographic techniques are based. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Neurodiagnostic Technology A116—Clinical Experience 1 (3.5)

Prerequisite: Neurodiagnostic Technology A110 and Allied Health A115.

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 pass-no pass basis only. One hour lecture, sixteen hours clinical. **Transfer Credit: CSU.**

Neurodiagnostic Technology A117—Clinical Experience 2 (3) (8 week course)

Prerequisite: Neurodiagnostic Technology A115 and A116.

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 A116, and will include performance of EEG testing on clinical patients, medical record keeping, and clinical history taking. Offered on a pass-no pass basis only. Thirty-two hours clinical. **Transfer Credit: CSU.**

Neurodiagnostic Technology A190—Introduction to Neuro Anatomy and Physiology (3)

Prerequisite: Biology A221.

An introduction to the anatomy of the central and peripheral nervous system with correlation to related symptoms and pathology 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 A191—EEG Record Review--Normal (1) (8 week course)

Corequisite: Neurodiagnostic Technology A115.

Practice in electroencephalograph (EEG) record review of normal adult and pediatric patients. Technical description of normal EEG patterns. Two and a quarter hours. **Transfer Credit: CSU.**

Neurodiagnostic Technology A200—Neurodiagnostic Lab Practice (.5) (4 week course)

Prerequisite: Neurodiagnostic Technology A110.

Application of basic technical skills to successfully record routine EEG, and EP procedures according to published ACNS guidelines. This course may be taken three times. Six hours laboratory. **Transfer Credit: CSU.**

Neurodiagnostic Technology A280—Neurologic Disorders (3)

Prerequisite: Neurodiagnostic Technology A115 and A190.

Clinical and electroneurodiagnostic correlations to various physical conditions and disease states which are commonly dealt with in neurodiagnostic technology. Relationship of technologists to various medical specialties: neurology, neurosurgery, pathology, radiology, internal medicine, and psychiatry. Three hours. **Transfer Credit: CSU.**

Neurodiagnostic Technology A284—Introduction to Transcranial Doppler (1) (8 week course)

Prerequisite: Biology A221.

An introduction to Transcranial Doppler (TCD) procedures and recording techniques. Two hours. **Transfer Credit: CSU.**

Neurodiagnostic Technology A285—Introduction to Nerve Conduction Velocity (1) (8 week course)

Prerequisite: Neurodiagnostic Technology A117.

An introduction to nerve conduction velocity (NCV) testing procedures and recording techniques. Two hours. **Transfer Credit: CSU.**

Neurodiagnostic Technology A286—Clinical Experience 3 (3.5)

Prerequisite: Neurodiagnostic Technology A117.

Continued clinical experience in EEG at an affiliated health care facility under the direct supervision of an EEG technologist or physician. This clinical will build on skills attained in NDT A117. There will also be opportunities to observe and possibly perform evoked potential studies. Offered on a pass-no pass basis only. Sixteen hours clinical. **Transfer Credit: CSU.**

Neurodiagnostic Technology A287—EEG Record Review--Abnormal (1.5) (8 week course)

Prerequisite: Neurodiagnostic Technology A191.

Corequisite: Neurodiagnostic Technology A115.

Practice in electroencephalograph (EEG) record review of neurological subjects covered in Neurodiagnostic Technology A280. Classification of abnormal EEG patterns with correlation to clinical disorders. Two hours. **Transfer Credit: CSU.**

Neurodiagnostic Technology A288—Evoked Potentials (4)

Prerequisite: Neurodiagnostic Technology A110 and A190.

Concepts, terminology, and techniques of Evoked Potential (EP) recording with testing modalities of visual, auditory, and somatosensory systems to be individually discussed. An overview of EP instrumentation and technical concepts. Analyze the clinical correlations of evoked potential testing and will focus on waveform analysis correlating to common neurological diseases. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Neurodiagnostic Technology A289—Clinical Experience 4 (2) (12 week course)

Prerequisite: Neurodiagnostic Technology A286 and A288.

Clinical practice in neurodiagnostic testing with an emphasis on evoked potential and more specialized neurodiagnostic testing procedures. This clinical also further develops advanced skills in electroencephalographic recording and analysis. Offered on a pass-no pass basis only. Sixteen hours clinical. **Transfer Credit: CSU.**

Neurodiagnostic Technology A296—Introduction to Intraoperative Monitoring (2) (14 week course)

Prerequisite: Neurodiagnostic Technology A288.

An introduction to Intraoperative neurophysiologic monitoring recording strategies. Analysis of signal changes during an operation will be correlated with anesthetic agents, metabolic effects, and/or the effects of surgical trauma. Intraoperative monitoring scenarios will be demonstrated and practiced in the classroom laboratory. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Neurodiagnostic Technology A297—Microcomputer Applications in Neurodiagnostics (2) (12 week course)

Prerequisite: Computer Information Systems A100 and Neurodiagnostic Technology A115.

Specialized computer applications 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 will be integrated into the classroom and during field trips. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

Neurodiagnostic Technology A298—Clinical Internship (1) (4 week course)

Prerequisite: Neurodiagnostic Technology A289.

Specialized neurodiagnostic clinical internship at an affiliate hospital site. Specialized areas may include intra-operative neurophysiologic monitoring, neonatal testing, long-term epilepsy monitoring, pediatric testing, transcranial doppler studies, nerve conduction studies and others. Offered on a pass-no pass basis only. Thirty-two hours clinical. **Transfer Credit: CSU.**

NUTRITION CARE

Nutrition Care A100—Careers in Dietetics and Food Science (1)

Exploration of the fields of Dietetics and Food Science/Culinology, including trends, future projections and employment opportunities. Guest speakers and field trips to nutrition services in health care and community agencies and food manufacturing plants are included. Same as Food and Nutrition A100. Students completing Nutrition Care A100 may not receive credit for Food and Nutrition A100. One hour lecture, one-half hour non-lecture. **Transfer Credit: CSU.**

Nutrition Care A175—Health Care Field Experience (3)

Prerequisite: Culinary Arts A150 and Food and Nutrition A170

Corequisite: Nutrition Care A180.

Importance and scope of providing food and nutrition 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 A180—Introduction to Medical Nutrition Therapy (3)

Prerequisite: Food and Nutrition A170.

The principles of nutrition as they relate to special and abnormal physical conditions and diseases and the dietary modifications necessary. Healthcare diets are studied and planned. Two hours lecture, two hours laboratory. **Transfer Credit: CSU.**

Nutrition Care A280—Intermediate Nutrition Care (2)

Prerequisite: Nutrition Care A180.

Corequisite: Nutrition Care A281.

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 A281—Supervised Practice 1 (3)

Corequisite: Nutrition Care A280.

Supervised clinical practice in community agencies and schools dealing with nutritional aspects of dietary evaluation, nutrition education and counseling. Students will be required to follow dress standards set by the facility. One-half hour lecture, ten hours clinical. **Transfer Credit: CSU.**

All courses numbered A100 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.

Nutrition Care A285—Advanced Nutrition Care (2)

Prerequisite: Nutrition Care A281.

Corequisite: Nutrition Care A286.

Advanced application of knowledge and skills related to food service management and the nutrition care process in preparation for entry-level practice as dietetic technicians in health care facilities. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Nutrition Care A286—Supervised Practice 2 (3)

Corequisite: Nutrition Care A285.

Supervised practice in food service management and nutrition care in acute medical care facility. Rotation through the various job responsibilities of the dietetic technician. Students will be required to follow dress standards set by the facility. One-half hour lecture, ten hours clinical. **Transfer Credit: CSU.**

ORNAMENTAL HORTICULTURE

Ornamental Horticulture A090—Orientation to Horticulture (.5)

Educational opportunities at Orange Coast, further education, careers in horticulture, professional organizations, licensing and job finding. Offered on a pass-no pass basis only. Two hours.

Ornamental Horticulture A100—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Ornamental Horticulture A101—Current Topics (1-4)

Current issues in the field of Ornamental Horticulture. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to four hours lecture. **Transfer Credit: CSU.**

Ornamental Horticulture A105—Botany For Gardeners (3)

The world of garden plants, their structure, form and how they function. A course for the plant professional and plant enthusiasts. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Ornamental Horticulture A109—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Ornamental Horticulture A111—Landscape Drafting Technique (1)

Basic landscape drafting practices, lettering, line work, symbols, sheet composition and dimensioning. May be taken for grades or on a pass-no pass basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

Ornamental Horticulture A150—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Ornamental Horticulture A151—Introduction To Tree Care (2)

An introduction to the appreciation, selection and care of trees. Tree pruning, staking, watering, fertilizing and recognition of early diagnosis of tree problems. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Ornamental Horticulture A170—Pest Control Applicators and Gardeners P.C.O. Certification (1)

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 pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Ornamental Horticulture A181—Ornamental Trees (3)

Identification, habits of growth, culture, propagation, and use of ornamental trees in landscape design for Southern California. May be taken for grades or on a pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Ornamental Horticulture A182—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 pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Ornamental Horticulture A183—Plant Propagation (3)

Principles and practice of propagation of horticultural plants. Propagation from seed, cuttings, layering, and grafting. May be taken for grades or on a pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Ornamental Horticulture A184—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 pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Ornamental Horticulture A185—Plant Diseases (1.5)

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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Ornamental Horticulture A186—Pests of Ornamentals (1.5)

Common mite, insect, and other animal pests of ornamental plants and common weeds of Southern California are described and identified and ways to prevent and treat infestations are discussed. May be taken for grades or on a pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Ornamental Horticulture A187—Interior Plantscaping (2)

Identification, selection, installation, care and maintenance of plants for interior situations. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Ornamental Horticulture A188—Turf Culture and Management (3)

Maintenance and management of turf including such areas as golf courses, parks, playing fields and home lawns. May be taken for grades or on a pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Ornamental Horticulture A189—Weeds and Their Control (1.5)

Recognition and control of weeds in the landscape and in nurseries with emphasis on practical application. May be taken for grades or on a pass-no pass basis. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Ornamental Horticulture A190—California Friendly Landscapes (2)

New landscapes and the retrofitting of existing landscapes with California native and "non-thirsty" Mediterranean plants that will address the current legislation for water conservation. May be taken for grades or on a pass-no pass basis. Two hours. **Transfer Credit: CSU.**

Ornamental Horticulture A191—Cacti and Succulents (1.5)

How to use the plants from the deserts of the world in the Southern California landscape. Identification, growth habits, culture, propagation, design considerations, and conservation. May be taken for grades or on a pass-no pass basis. One and one-half hours. **Transfer Credit: CSU.**

Ornamental Horticulture A285—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 pass-no pass basis. Two hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Ornamental Horticulture A286—Landscape Design Elements (2)

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 pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Ornamental Horticulture A287—Planting Design (2)

Prerequisite: Ornamental Horticulture A181, A182, or concurrent enrollment.

Design and preparation of landscape planting plans. Emphasis on ecological and aesthetic considerations. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Ornamental Horticulture A288—Sprinkler Irrigation Systems Design (2)

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 pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Ornamental Horticulture A289—Installation of Residential Irrigation Systems (1)

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 pass-no pass basis. One hour lecture, two hours laboratory. **Transfer Credit: CSU.**

PHILOSOPHY

Philosophy A100—Introduction to Philosophy (3)

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 A110—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. Same as Religious Studies A110. Students completing Philosophy A110 may not receive credit for Religious Studies A110. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Philosophy A115—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. Same as Religious Studies A115. Students completing Philosophy A115 may not receive credit for Religious Studies A115. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Philosophy A118—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Philosophy A120—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. Same as Religious Studies A120. Students completing Philosophy A120 may not receive credit for Religious Studies A120. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Philosophy A125—History of Ancient Philosophy (3)

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. Recommended for philosophy majors, historians, and those interested in the roots of modern civilization. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Philosophy A150—Logic and Critical Thinking (3)

Prerequisite: English A100 with grade of 'C' or better.

An introduction to the critical analysis and rational evaluation of argument and other forms of expression. Covers the uses of language, distinctions between deductive and inductive reasoning, and practice in detecting formal and informal fallacies. 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Philosophy A165—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. Assess how evidence is assembled, interpreted and 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Philosophy A185—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 A220—Introduction to Symbolic Logic (3)

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 Mathematics A220. Students completing Philosophy A220 may not receive credit for Mathematics A220. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

PHOTOGRAPHY

Photography A100—Basic Digital Photography (2)

A basic course to familiarize students with the fundamentals of digital photography. Students will gain practical experience relating to different digital cameras, exposure, light, color, composition and presentation. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

Photography A101—Photography and Society (3)

Lecture/discussion class that explores how photographs function in society, and, in turn, how society determines our visual environment. Images will be analyzed in context of the total photographic milieu: news, advertising, snapshots, art, the internet, TV, etc. Fulfills "100" elective course requirement for Photography Certificate of Achievement. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Photography A120—Basic Photography (3)

Discussion and demonstration of basic black & white 35mm photography. Instructions in the theory and technique of camera use, processing film, and making enlargements. Emphasis on photography as a means of communication, personal expression and on the critical evaluation of student work in terms of those goals. May be taken for grades or on a pass-no pass basis. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU; UC.**

Photography A121—View Camera (2)

Advisory: Photography A120.

A basic introduction to view camera techniques. Topics will include; Camera movements, film handling, developing and printing methods and working applications of view camera. May be taken for grades or on a pass-no pass basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Photography A122—Personal Expression (3)

Advisory: Photography A120.

Explores the use of visual language in relation to ideas. Discussion of aesthetics, history of photography and current trends. Advanced techniques are included, but emphasis will be placed on personal expression. Instruction is offered at beginning and intermediate levels. Fulfills "100" level elective course requirement for Photography Certificate of Achievement. This course may be taken twice. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Photography A123—Basic Digital Photography (3)

Discussion and demonstration of digital SLR photography. Instructions in the theory and technique of camera use, working with digital files, and making prints. Emphasis on photography as a means of communication, personal expression and on the critical evaluation of student work in terms of those goals. This course may be repeated three times. **Transfer Credit: CSU.**

Photography A125—Imaging with Photoshop 1 (3)

Advisory: Photography A120.

Designed to introduce the student to basic digital cameras and photographic image processing with computers. Lectures and demonstrations of camera features, basic image manipulation, color managed digital printing, and archiving of images. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Photography A126—Digital Imaging with Photoshop (3)

An introduction to digital imaging for photographers using Adobe Photoshop. Students will learn how to manipulate and enhance digitized images, including retouching for output to a variety of media. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Photography A130—History and Aesthetics of Still Photography (3)

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 A152—Photo Gallery (2)

Aids students in the appreciation and critical analysis of contemporary art photography. Presentations and discussions provide background for weekly field-trips to museums and galleries in the Los Angeles area. Course content differs each semester due to the local exhibition calendar. Counts towards "100" level optional course requirement for Photography Certificate of Achievement. This course can be taken four times. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three hours. **Transfer Credit: CSU.**

Photography A160—Black and White Photography Laboratory (1-2)

Advisory: Photography A120.

Assistance with advanced black & white laboratory, studio, and camera projects. This is a workshop course intended as an augmentative laboratory course for those enrolled in certificate studio/production photography classes. Counts toward "100" level elective course requirement for Photography Certificate of Achievement. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three to six hours laboratory. **Transfer Credit: CSU.**

Photography A161—Digital Photography Laboratory (1-2)

Advisory: Photography A125.

Students requiring additional digital laboratory experience. Assistance provided with scanning and printing projects. This is a workshop course intended as an augmentative laboratory course for those enrolled in advanced digital photography classes. Counts toward "100" level elective course requirement for Photography Certificate of Achievement. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three to six hours laboratory. **Transfer Credit: CSU.**

Photography A180—Introduction to Professional Photography (4)

Advisory: Photography A120.

Instruction in the basic professional techniques and the use of professional traditional and digital 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 A187—Laboratory Practices (3)

Advisory: Photography 120.

Study of professional black and white photographic techniques. Emphasis on the following areas; film, developer and paper selection and testing, exposure, contrast control (zone system), advanced fine printing techniques, alterations of photographic materials through intensification and reduction, basic sensitometry and practical photochemistry. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Photography A188—Commercial Photography (5)

Advisory: Photography A180.

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 A196—Photo Bookworks (3)

Advisory: Photography A125.

Major course projects are the production of several unique photographic books. Layout, typography, editing of photos, and makeup of a book are covered. Attention will be paid to viewing and discussing a wide range of photographic bookworks. Instruction is offered at intermediate and advanced levels. Recommended for photography majors. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Photography A200—Documentary Photography (3)

Advisory: Photography A120.

Concepts, aesthetics and history of documentary photography. Strongly recommended for students interested in journalism, material culture and social/political issues. Students may use B&W, color or digital photography. Instruction is offered at intermediate and advanced levels. This course can be taken two times. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Photography A205—Professional Digital Capture (3)

Advisory: Photography A125.

Digital photography for the advanced student. Lectures and demonstrations in current techniques of professional level image capture using small and large format camera systems. Counts towards "200" level elective course requirement for Photography Certificate of Achievement. This course may be taken two times. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Photography A220—Fashion Photography (3)

Prerequisite: Photography A180.

Editorial and advertising fashion photography as it is practiced professionally. Previous 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. This course may be taken four times. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

Photography A225—Professional Digital Workflow and Color Management (3)

Advisory: Photography A125 or Digital Media Arts and Design A193.

Emphasis on current techniques of advanced digital printing workflow, digital file preparation, color management and advanced digital retouching techniques. Recommended for those with an interest in commercial, editorial, or fine art work. Counts toward "200" level elective for Photography Certificate of Achievement. This course may be taken three times. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Photography A230—Photography Since 1945 (3)

Advisory: Photography A130.

A critical history of photography from 1945 to the present. Works will be considered from social, political, and art historical perspectives. 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Photography A241—Business Practices for Photographers (3)

This course provides an introduction to basic business practices in photography. Topics include: establishing a photographic business, current pricing structures, marketing procedures, principles of accounting, calculating fixed and variable expenses, possible legal and ethical problems, general small business practices 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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Photography A260—Special Projects (2)

Prerequisite: Photography A180.

Faculty directed in-depth study of a limited area of photographic concern. Topic(s) and faculty chosen by the

student. Instruction is offered at intermediate, intermediate/advanced and advanced levels. Recommended for photography majors. Counts toward '200' level elective course requirement. This course may be taken four times. One hour conference with instructor, three hours laboratory. **Transfer Credit: CSU.**

Photography A261—Non-Lab Special Projects (2)

Prerequisite: Photography A120.

Faculty-directed study into the history, criticism, interpretation, literature, theory, or business of photography, not involving any lab work. Topic(s) and faculty chosen by the student. Instruction is offered at intermediate, intermediate/advanced and advanced levels. Recommended for photography majors. Counts toward '200' level optional course requirement. This course may be taken four times. One hour conference with chosen instructor, three hours arranged. **Transfer Credit: CSU.**

Photography A280—Introduction to Professional Color Photography (3)

Advisory: Photography A180.

An Introduction to all aspects of color photography. 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, testing of color materials, filtration, color correction and digital methodologies. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Photography A282—Professional Portraiture (3)

Prerequisite: Photography A125 and A180.

Prepares for employment in professional portrait photography or management of a portrait studio. Includes studio lighting techniques, studio practices, and the variety of specialized services offered by a professional portrait studio. Counts toward '200' level elective course requirement for photography majors. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

Photography A283—Art Photography (4)

Advisory: Photography A130.

A critique based studio class focusing on photography as a contemporary art medium – concepts, aesthetics and history of art photography in relation to contemporary art practice in general. Students may use black and white, color or digital photography. Instruction is offered at intermediate and advanced levels. Required for photography majors. This course can be taken two times. Three hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Photography A287—Alternative Methods (3)

Advisory: Photography A120.

An intermediate to advanced course covering modern photographic techniques involved with manipulating the photographic medium. Technical and creative experimentation will be emphasized. This course may be taken two times. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Photography A288—Editorial and Advertising People Photography (3)

Advisory: Photography A188.

Addresses the topics and skills associated with commercial photography of people, usually on location, for the purpose of conveying a message, idea, or concept in advertising, editorial, and annual report applications. Topics include commercial and retail portraiture, concepts communicated

through portraiture, location scouting and lighting. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

Photography A289—Architectural Photography (3)

Advisory: Photography A280.

Commercial architectural photography intended for advanced students. Projects in both exterior and interior architectural photography with emphasis on different light sources, perspective and color correction. Some fieldwork with instructor. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

Photography A290—Advertising Illustration Photography (3)

Advisory: Photography A280.

Advanced photography students and professional photographers with specific interest in the commercial photography field of advertising illustration. Counts toward "200" level elective course requirement for Photography Certificate of Achievement. 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.

ACTIVE ADULTS/ SECOND HALF

Physical Education A124—Strength and Balance - Level 1 (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 through a variety of exercises using resistance balls, weights, and Styrofoam rollers. Importance is placed on injury prevention and safety in this course. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A127—Cardio and Stretch - Level 1 (5-2)

The Second Half is a program to enhance the mind and body for the baby boomer generation. Designed to improve cardiovascular endurance, flexibility and quality of life for men and women 50 years and older. Provides increased cardiovascular endurance and flexibility through a variety of exercises that can be practiced daily increasing mobility and cardiovascular endurance. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A216—Strength and Balance-Level II (.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 through a variety of exercises using resistance balls, weights, and Styrofoam rollers. Intermediate exercise levels with the above mentioned tools. This course may be taken four times. **Transfer Credit: CSU.**

Physical Education A217—Cardio and Stretch-Level II (.5-2)

The Second Half is a program to enhance the mind and body for the baby boomer generation. Designed to improve cardiovascular endurance, flexibility and quality of life for men and women 50 years and older. Intermediate exercises to increase cardiovascular endurance and flexibility through a variety of exercises will be introduced and practiced. This course may be taken four times. **Transfer Credit: CSU.**

ADAPTED ACTIVITIES

Physical Education A185—Adapted Strength and Balance (.5-1.5)

Course is for students with physical disabilities who want to learn methods of increasing stability, decreasing fear, improving posture, recovering loss of balance & getting up from a fall. Students must participate in all challenges & balance assessments. **Transfer Credit: CSU.**

Physical Education A190—Adapted Exercise for Back and Neck Disorders (.5-1.5)

Designed for ambulatory students with primary 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 physio-ball are also included. Student must be able to stand and transfer to the floor independently. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 activity. **Transfer Credit: CSU; UC.**

Physical Education A191—Adapted Strength Training (.5-1.5)

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, and flexibility. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A192—Adapted Individual Sports (.5-1.5)

This course is designed for students with physical disabilities who can benefit from 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 pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

All courses numbered A100 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 A194—Adapted Aquatics (.5-1.5)

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 pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A196—Adapted Cardiovascular Fitness (.5-1.5)

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 pass-no pass basis. This course may be taken four times. .25-.75 hours lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A197—Adapted Aerobic Exercise (.5-1.5)

Course is designed for students with physical disabilities who can benefit from a sustained cardiorespiratory exercise program. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A198—Adapted Stretching (.5-1.5)

Course is designed for students with physical disabilities 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 pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

EASTERN MOVEMENT FORMS

Physical Education A104—Hatha Yoga - Level I (.5-1.5)

Yoga postures, breathing, concentration/meditation, and relaxation techniques will be presented as a method of personal development encompassing body, mind, and spirit. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A105—T'ai Chi Chih (.5)

The study and practice of Tai Chi Chih, a newly developed system of the Qigong discipline based upon ancient principles. It consists of 20 movement patterns designed to generate, circulate and harmonize internal energy flows for health enhancement. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5 hour lecture, 1.5 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A120—Aikido (.5-1.5)

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. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A121—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 pass-no pass basis. This course may be taken four times. .5-75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A122—Karate (.5-1.5)

The study of the elements of Karate, with an emphasis on Karate basics through advanced fundamentals, Kata, and sparring (including Kumite). Karate students progress from beginning fundamentals to refined techniques and may earn the rank of Green Belt by the end of three or four semesters. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A204—Hatha Yoga - Level II (.5-1.5)

Advisory: Physical Education A104 or instructor's consent.

Yoga postures, breathing, concentration/meditation, and relaxation techniques will be presented as a method of personal development encompassing body, mind, and spirit. Intermediate yoga poses will be introduced and practiced. This course may be taken four times. **Transfer Credit: CSU.**

FITNESS ACTIVITIES

Physical Education A102—Stretch and Flex (.5-1.5)

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 pass-no pass basis. This course may be taken four times. .25-.75 hours lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A106—Triathlon Techniques (2.5)

A multi-sport fitness program for the novice exerciser to competitor. Students will receive video analysis in swimming, learn safe group cycling practices, proper running technique, discuss injury prevention, the importance of rest and recovery and nutrition. Other topics include equipment technology, selection and maintenance. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A107—Fitness Programs I (5-3)

Allows a student to use the OCC Cardiovascular lab and attend other daytime activity classes with instructor permission. Students must make selections from a series of computer-analyzed fitness and lifestyle evaluations, as well as attend seminars on physical fitness and wellness. Students are required to attend a one-hour orientation. Offered on a pass-no pass basis only. This course may be taken four times. .3 to 1.8 hours lecture, 0.7 to 4.2 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A108—Strength and Conditioning (5-3)

Individual strength and conditioning programs. Workouts must be done in the Fitness Complex. Students are required to attend a one-hour orientation. This course may be taken four times. Offered on a pass-no pass basis only. This course may be taken four times. .25-1.5 hours lecture, .75 to 4.5 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A109—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. This course may be taken four times. .25-1.5 hours lecture, .75-3.5 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A110—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. Explores 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 pass-no pass basis. This course may be taken four times. One to five hours lecture/activity. **Transfer Credit: CSU; UC.**

Physical Education A111—Weight Training (5-1.5)

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 pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A112—Step Aerobics (5-1.5)

Contemporary workout designed to improve 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 pass-no pass

basis. This course may be taken four times. .25-.75 hours lecture, .75-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A114—Aerobic Exercise (5-1.5)

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 pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A115—Cross Training (5-1.5)

A multi dimensional approach to total body fitness and wellness. 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. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A119—Athletic Team Training (5-5)

Course designed for students who are interested in improving their skills for competitive athletic performance. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-2.5 hours lecture, 1.5-7.5 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A125—Body Sculpting (5-1.5)

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 pass-no pass basis. This course may be taken four times. .25-.75 hours lecture, .75-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A128—Strength and Conditioning II (5-3)

Advanced Strength and conditioning programs. Workouts must be done in the Fitness Complex. Students must attend a one-hour orientation. Offered on a pass-no pass basis only. This course may be taken four times. .25-1.50 hours lecture, .75-4.50 hours non-lecture. **Transfer Credit: CSU.**

Physical Education A129—Fitness for Performance (5-2.5)

Designed to enhance all components of physical fitness: muscular strength and endurance, cardio-respiratory endurance, flexibility, and reduce body fat while reducing the risk of injury by using a variety of fitness regimens in order to improve performance. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.5 hours lecture, .75-3.5 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A187—Fitness Programs II (5-3)

This is an advanced course of Physical Education A107. Allows a student to use the OCC Cardio Labs and attend other daytime activity classes with instructor permission. Students are required to attend a general fitness evalua-

tion at beginning of the semester. Students are required to attend a one-hour orientation. Offered on a pass-no pass only. This course may be taken four times. .25-1.50 hours lecture, .75-4.50 non-lecture. **Transfer Credit: CSU.**

INDIVIDUAL & TEAM ACTIVITIES

Physical Education A156—Futsal/Indoor Soccer (5-2)

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 training, and participate in drills, Futsal/indoor soccer scrimmages and games. Will explore the relationship between fitness and health related topics to improve, be part of, and maintain a wellness lifestyle. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-1.0 hour lecture, /7.5-3.0 hours activity. **Transfer Credit: CSU.**

Physical Education A167—Rock Climbing (5-2)

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, safety falling, and arresting falls will be covered. A fee for use of an off-campus facility will be required. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-1.0 hours lecture, 1.5-3.0 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A173—Basketball (5-1.5)

Instruction and practice in the essential skills, rules, etiquette and competition necessary for beginning/intermediate basketball. This is a coed class designed for recreational players. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-.75 hour lecture, 1.5-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A174—Bowling (5-1.5)

Designed to teach the fundamentals of bowling and provide beginning, intermediate and advanced bowlers the opportunity to safely learn and improve the skills to bowl. Will explore the relationship between fitness and health related topics to improve, be part of, and maintain a wellness lifestyle. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A177—Soccer (5-2)

Designed for beginning, intermediate, and advanced soccer players. Students will improve skills through application of rules and theory increase flexibility and endurance, and participate in drills, scrimmages and games. This course will explore the relationship between fitness and health related topics to improve, be part of, and maintain a wellness lifestyle. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-1.0 hour lecture, 1.5-3.0 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A178—Volleyball (.5-1.5)

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 pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A179—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 pass-no pass basis. This course may be taken four times. .5-.75 hour lecture, 1.5-2.25 hours activity. **Transfer Credit: CSU; UC.**

INTERCOLLEGIATE ATHLETICS - COED

Physical Education A222—Pep Squad (2)

Practice, participation and competition on cheer, dance and stunt teams for OCC. Includes development of skills, both individual and group, for successful public performance. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU.**

Physical Education A226—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.

Designed for students with competitive sailing experience who are interested in improving their skills and compete on the OCC Intercollegiate Sailing Team. Instruction and practice in the methods, techniques and rules of sailing and racing. The Sailing Team competes in local and national regattas in Flying Junior dinghies. Practices are conducted at the Intercollegiate Sailing & Rowing facility at 1801 W. Coast Hwy. in Newport Beach. For more sailing team information call 949-645-9412. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

INTERCOLLEGIATE ATHLETICS - MEN

Physical Education A221—Golf Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A250—Baseball Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

All courses numbered A100 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 A251—Basketball Team (1) (8 week course)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A252—Crew Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A253—Cross Country Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A254—Football Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A257—Soccer Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A258—Swimming Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A259—Tennis Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A260—Track and Field Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A261—Volleyball Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A263—Water Polo Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

INTERCOLLEGIATE ATHLETICS - WOMEN

Physical Education A235—Basketball Team (1)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A236—Cross Country Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A237—Badminton Team (2)

For students with intermediate/advanced badminton skills who want to experience intercollegiate competition. Eligibility based on successful audition. Auditions will be held during the first week of classes. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A238—Crew Team (2)

Prerequisite: Crew fundamentals.

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A239—Golf Team (2)

Eligibility based on successful audition. Auditions will be held during the first week of classes. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A240—Soccer Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A241—Fastpitch Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A242—Swimming Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A243—Tennis Team (2)

The tennis team provides the opportunity for women to participate on an intercollegiate team. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A244—Track and Field Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A245—Volleyball Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

Physical Education A246—Water Polo Team (2)

Eligibility audition will be held during the first week of class in PE A129. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

PERFORMANCE & HEALTH

Physical Education A134—Fitness and Health (3)

Theory and benefits of physical activity to fitness-related health. The study of human adaptation to exercise includes cardiovascular conditioning, neuromuscular training, body composition, nutrition for performance, stretching, sports injuries, and aging. Same as Health Education A134. Students completing Physical Education A134 may not receive credit for Health Education A134. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Physical Education A138—Drugs and Sports (3)

An indepth 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, nutrition and positive alternatives. Same as Health Education A138. Students completing Physical Education A138 may not receive credit for Health Education A138. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

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 A199—Current Issues in Physical Education (.5-3)

The study and discussion of current topics and issues in the field of physical education, exercise science and fitness training. Units vary according to topic selected, semester selected, and number of meetings scheduled. Of interest to students majoring in physical education, kinesiology and fitness related fields or general education. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One to three hours. **Transfer Credit: CSU.**

Physical Education A268—Introduction to Adapted Physical Education (2.5)

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. May be taken for grades or on a pass-no pass basis. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Physical Education A274—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 A278—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 A281—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 A284—Fitness and Exercise Testing (3)

Theory and techniques of physical fitness evaluation, exercise testing and exercise prescription. Three hours. **Transfer Credit: CSU.**

Physical Education A285—Athletic Taping and Modalities (3)

The entry-level theory and technique of athletic strapping and physiological effects and 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 A287—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. This course may be taken four times. One hour lecture, three to nine hours non-lecture. **Transfer Credit: CSU.**

Physical Education A289—Strength and Conditioning Theory (3)

Theory and applications of strength development, muscular endurance, flexibility, neuromuscular coordination, nutrition and supplementation. Includes planning, developing 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.**

Physical Education A296—Exercise Physiology (3)

The study of human physiological processes during exercise and activity. Includes study of metabolic changes to major body systems during acute exercise, the physiological adaptations due to chronic exercise and the effect of training upon performance. **Transfer Credit: CSU.**

RACQUET ACTIVITIES

Physical Education A150—Badminton (.5-1.0)

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 pass-no pass basis. This course may be taken four times. .5-.75 hour lecture, 1.5-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A154—Table Tennis (.5-1)

Introduction and practice in the essential stroke skills, rules, etiquette, and competition in singles and doubles. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5 hour lecture, 1.5 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A155—Tennis (.5-1.5)

Instruction and practice in the essential stroke skills, rules, etiquette and competition in singles and doubles. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hours lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

WATER ACTIVITIES

Physical Education A140—Aqua Fitness (.5-1.5)

Prerequisite: Ability to swim 25 yards and tread water for one minute. This skill will be validated the first week of class.

Designed to improve physical fitness through water exercises, increase flexibility, muscle tone, aerobic conditioning, and enhance physical rehabilitation. Exercises are impact-free and combine the properties of weightlessness and resistance to protect the bones and joints and increase bone density. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hours lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A143—Swimming (.5-1.5)

Instruction and practice in basics of freestyle, breast stroke, and backstroke, as well as breathing skills, while improving cardiovascular endurance. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .25-.75 hour lecture, .75-2.25 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A146—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 pass-no pass basis. This course may be taken four times. 0.3 to 1.5 hours lecture, 0.7 to 3.5 hours activity. **Transfer Credit: CSU; UC.**

Physical Education A147—Introduction to Sailing (1)

Prerequisite: Ability to swim 50 yards and tread water for five minutes.

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 Marine Activities A147. Students completing Physical Education A147 may not receive credit for Marine Activities A147. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A148—Introduction to Keel Boats (1)

Prerequisite: Ability to swim 50 yards and tread water for five minutes; basic sailing ability.

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 Marine Activities A148. Students completing Physical Education A148 may not receive credit for Marine Activities A148. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A149—Introduction to Ocean Sailing (1)

Prerequisite: Ability to swim 50 yards and tread water for five minutes. Knowledge of basic sailing principles.

Introduces the fundamentals of ocean sailing through dockside lectures and hands-on experience aboard large sailing vessels. Sail handling, winch operation, steering, reefing, line handling are emphasized. Same as Marine Activities A149. Students completing Physical Education A149 may not receive credit for Marine Activities A149. May be taken for grades or on a pass-no pass basis. This course may be taken two times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A159—Outrigger Canoeing (.5-1.5)

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.

Designed to teach the fundamental outrigger canoeing techniques needed to become a safe and effective paddler.

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There will be a fee for use of equipment and use of the off-campus facility. Same as Marine Activities A159. Students completing Physical Education A159 may not receive credit for Marine Activities A159. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-.75 hours lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

INDIVIDUAL & TEAM ACTIVITIES

Physical Education A160—Kayaking (.5-1.5)

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.

Designed to teach the 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 A160. Students completing Physical Education A160 may not receive credit for Marine Activities A160. May be taken for grades or on a pass-no pass basis. This course may be taken four times. .5-.75 hour lecture, 1.5-2.25 hours non-lecture. **Transfer Credit: CSU; UC.**

Physical Education A161—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. Bring swim suit.

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 pass-no pass basis. This course may be taken four times. One hour lecture, three hours non-lecture. **Transfer Credit: CSU; UC.**

PHYSICS

Physics A110—Descriptive Introduction to Physics (3)

Advisory: Math A010 and A020.

A brief, but complete presentation of the fundamental phenomena and laws in physics, with experimental illustrations, enhancing the development of conceptual scientific thinking. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Physics A111—Introductory Physics Laboratory (1)

Prerequisite: Physics A110 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 pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

Physics A120—General Physics: Mechanics, Waves, Thermodynamics (4)

Prerequisite: Math A120 or concurrent enrollment.

The first semester of a two-semester sequence (with Physics A125) covering all topics in basic physics. Requires algebra and trigonometry. Satisfies the requirements for biological sciences and technical programs except physics, chemistry, and engineering. May be taken for grades or on a pass-no pass basis. Four hours lecture and demonstration, two hours laboratory. **Transfer Credit: CSU; UC.**

Physics A125—General Physics: Electricity, Magnetism, Light, Modern Physics (4)

Prerequisite: Physics A120.

The second semester of a two-semester sequence (with Physics A120) covering all topics in basic physics. Requires algebra and trigonometry. Satisfies the 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 A130—General Mechanics/Waves/Thermodynamics (4)

Prerequisite: Math A180.

Corequisite: Math A185.

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. The first semester of a two-semester sequence (with Physics A135) requiring calculus. Three hours lecture, one hour discussion, three hours laboratory. **Transfer Credit: CSU; UC.**

Physics A135—General Electromagnetism/Light/Modern Physics (4)

Prerequisite: Physics A130 and Math A180 and A185.

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 A185—General Physics: Mechanics, Waves (4)

Prerequisite: Math A180.

Corequisite: Math A185.

Advisory: One year of high school physics or a semester of college physics.

The Physics A185, A280, A285 sequence is required for students planning to major in physics, chemistry or engineering. Newton's laws of motion, dynamics of particles in a given force field. gravitation, conservation laws of energy, momentum, angular momentum, and the kinematics of rigid body rotation. Propagation of mechanical waves in different elastic medium, waves on the string, water waves, sound waves. Four hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Physics A280—General Physics: Electricity and Magnetism (4)

Prerequisite: Physics A185 and Math A180 and A185.
Continuation of Physics A185. Coulomb's law, electrostatics fields, conductors and insulators. Gauss's law and electromagnetic fields. Magnetic fields and Ampere's law. Faraday's law of induction and Maxwell's equations of electromagnetic fields. Electromagnetic energy transfer by means of cables, transmission lines and transparent media. Four hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

Physics A285—General Physics: Thermodynamics, Light, Relativity, Quantum Physics (4)

Prerequisite: Physics A185 or A280 with grade of 'C' or better.
Heat, Light, Modern Physics. The dynamics of the transformation of thermal energy into mechanical work, heat engines, heat pumps and refrigerators. Light laws viewed in terms of geometric optics and physical optics. The relevance of special theory of relativity to modern physics. Introduction to quantum mechanics. Four hours lecture, three hours laboratory. **Transfer Credit: CSU; UC.**

PHYSIOLOGY

(See Biology A225)

POLITICAL SCIENCE

Political Science A101—Survey of Current Issues (3)

Survey of current issues and events in American and/or 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Political Science A110—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Political Science A180—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. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Political Science A180H—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Political Science A185—Introduction to Comparative Politics (3)

An introduction to comparative empirical analysis of selected political systems, including advanced democracies, communist and former communist countries, and less developed countries, with an emphasis on governmental institutions and political processes. Particular attention is placed on the relationship between institutions and behavior. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Political Science A188—Introduction to Political Theory (3)

An introduction to selected political theorists and concepts from Plato to the present. Focus on the Western tradition and its major texts by reading ancient, modern, and contemporary political thinkers to examine their arguments on the nature of government and politics. Three hours. **Transfer Credit: CSU; UC.**

Political Science A190—Introduction to American Legal System (3)

An overview of the American legal system, its structure, and history. Reviews many aspects of the law and judicial process: the adversarial system, powers and jurisdiction of the federal and state courts, judicial review, legal education, the legal profession, and other related topics. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

POLYSOMNOGRAPHIC TECHNOLOGY

Polysomnography A100—Polysomnography Basics (1) (8 week course)

Prerequisite: Allied Health A115.
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 A150—Introduction to Polysomnography (3)

Corequisite: Polysomnography A160.
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 is included. Three hours. **Transfer Credit: CSU.**

Polysomnography A155—Cardiac Rhythm Analysis (0.5) (6 week course)

Prerequisite: Respiratory Care A185.
Corequisite: Polysomnography A170.
Electrocardiogram analysis for the assessment and care of patients in a sleep lab. Two hours. **Transfer Credit: CSU.**

Polysomnography A160—Polysomnography Testing 1 (2)

Prerequisite: Neurodiagnostic Technology A110 or concurrent enrollment.
Corequisite: Polysomnography A150.
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 A165—Polysomnography Clinical 1 (1.0) (8 week course)

Prerequisite: Allied Health A115 and Polysomnography A170.
Corequisite: Polysomnography A150 and A160.
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 pass-no pass basis only. Six hours non-lecture. **Transfer Credit: CSU.**

Polysomnography A170—Polysomnographic Practice (.50)

Corequisite: Polysomnography A150 and A165.
Preparatory course for polysomnography clinical experience. Topics will include medical ethics, clinical emergencies, behavioral and performance objectives, and employability skills. One half hour. **Transfer Credit: CSU.**

Polysomnography A175—Polysomnography Clinical 2 (1) (4 week course)

Prerequisite: Allied Health A115 and Polysomnography A160 and A165.
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 pass-no pass basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

Polysomnography A250—Polysomnography Record Review (2) (14 week course)

Prerequisite: Polysomnography A150, A160, and A165.
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 A260—Polysomnography Testing 2 (2) (14 week course)

Prerequisite: Polysomnography A160.
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 A265—Polysomnography Clinical 3 (2) (12 week course)

Prerequisite: Polysomnography A175.

Corequisite: Polysomnography A250 and A260.

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 pass-no pass basis only. One hour lecture, twelve hours clinical. **Transfer Credit: CSU.**

Polysomnography A270—Physician Lecture Series (1) (12 week course)

Prerequisite: Neurodiagnostic Technology A190 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 A285—Polysomnography Internship (2)

Prerequisite: Polysomnography A265.

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 pass-no pass basis only. Thirty-six hours. **Transfer Credit: CSU.**

PSYCHOLOGY

Psychology A100—Introduction to Psychology (3)

This course is a scientific study of mental processes and behavior. The following psychology topics are explored: methodology, physiology, sensation, perception, states of consciousness, learning, memory, intelligence, thought, language, development, motivation, emotion, sexuality, health, stress, personality, abnormal disorders, and therapies. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A100H—Honors Introduction to Psychology (3)

This course is a scientific study of mental processes and behavior. The following psychology topics are explored: methodology, physiology, sensation, perception, states of consciousness, learning, memory, intelligence, thought, language, development, motivation, emotion, sexuality, health, stress, personality, abnormal disorders, and therapies. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A105—Psychology of Women (3)

Evaluates traditional theories of the psychology of women and how they relate to women today. Will examine what science has taught us about the nature of women and how their psychology is both similar to and different from that of men. Topics include communication styles, social relationships, body image, sexuality, motherhood, work, and physical and mental health. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A110—Psychology of Adjustment (3)

The study of concepts and principles of personal and social adjustment. Theories (e.g., biological, psychodynamic, behavioral, cognitive, humanistic) of healthy adjustment

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are explored and coupled with 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A125—Introduction to Counseling (4)

Designed for students who seek to acquire a basic understanding of helping roles in the mental health profession. Theoretical and practical approaches to treating emotionally, developmentally, and cognitively impaired clients will be explored within the context of the rehabilitation and recovery model and other treatment models. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Psychology A130—Human Life Span Development (3)

Psychological study of human development across the lifespan from prenatal development through childhood, adolescence, adulthood, and dying. Theories and research of physical, cognitive, personality, and social development are examined, as well as attention to developmental problems. Institutions impacting each stage of development also addressed. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Psychology A140—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A150—Developmental Psychopathology (3.0)

An overview of child and adolescent psychopathology. Topics explored include the classification, assessment, course, etiology, prevention, and treatment of disorders associated with infancy, early childhood, middle childhood, and adolescence. Risk and protective factors as well as gender and cultural differences in developmental psychopathology will also be examined. May be taken for grades or on a pass-no pass basis. **Transfer Credit: CSU.**

Psychology A158—Abnormal Psychology (3)

Prerequisite: Psychology A100.

A survey of abnormal psychology, models of abnormal behavior, assessment and classification of mental disorders, etiology and treatment, and legal and ethical issues. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A160—Statistics for the Behavioral Sciences (3)

Prerequisite: Mathematics A030 with grade of 'C' or better or qualifying OCC mathematics placement score. See mathematics assessment requirement.

Emphasizes the calculation, interpretation, and application of descriptive and inferential statistics in the behavioral sciences. Topics include research methods, mathematical concepts, distributions, estimation, correlation, regression, sampling and probability, hypothesis testing, z and t Tests, ANOVA, and nonparametric tests. Students completing Mathematics A160 may petition for alternative credit for Psychology A160. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A165—Introductory Human Sexuality 1 (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. Same as Sociology A165. Students completing Psychology A165 may not receive credit for Sociology A165. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A175—Human Sexuality 2 (3)

Prerequisite: Psychology A165 or Sociology A165.

An advanced course on human sexuality in which the social-psychological factors that affect sexual behavior will be explored. This course will examine the extent to which knowledge, preferences, lifestyle, awareness, and education affect sexuality. Same as Sociology A175. Students completing Psychology A175 may not receive credit for Sociology A175. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A185—Principles of Psychology (3)

Prerequisite: Psychology A100.

This course is a survey of contemporary and classic research in the subfields of psychology particularly addressing applications, critical thinking, and the processes which underlie behavior. An emphasis on contemporary interests, recent discoveries, and innovations in the field of psychology will be addressed. This class is recommended for general education and for students majoring in the behavioral sciences. Three hours. **Transfer Credit: CSU; UC.**

Psychology A199—Current Topics in Psychology (.5-3)

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. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One half hour to three hours. **Transfer Credit: CSU.**

Psychology A200—Positive Psychology (3)

Focus on presenting practical ways to promote and maintain well-being and happiness by managing emotions, strengthening positive character traits, and fostering better relationships. Topics include compassion, mindfulness, creativity and flow, self-knowledge, self-esteem, love, parenting, friendships, work ethics and achievement, spirituality, tolerance, resilience and humor. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Psychology A215—Psychology of Behavior Modification and Assertion (2) (8 week course)

Designed to teach cognitive and behavioral change techniques. Specific behavior change programs especially relevant to personal and social behaviors such as assertiveness are taught and rehearsed. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

Psychology A220—Psychology of Personality (3)

Prerequisite: Psychology A100.
A survey of the various personality theories and their application to therapy, individual self-growth and understanding. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A235—Psychosocial Rehabilitation and Recovery (3)

Advisory: Psychology A100.
Introduces and familiarizes students with recovery and rehabilitation methods that address co-occurring disorders, family support, work, and education support. Introduces the student to community resources that will aid them in assisting individuals with housing, employment, dual diagnosis services, transportation, and other social services as part of the recovery process. **Transfer Credit: CSU.**

Psychology A245—Field Work for Mental Health Workers (3.0)

Prerequisite: Psychology A100, A125, A158 and A235 with a minimum grade of "C". CPR Certification; and instructor consent. The course instructor must approve fieldwork placement settings.
Fieldwork experience is a component of the Mental Health Worker Certificate Program. Class meetings emphasize learning about working in the mental health field and developing associated skills. Students obtain supervised experience in a relevant mental health placement setting. This course may be taken two times. **Transfer Credit: CSU. Transfer Credit: CSU.**

Psychology A250—Physiological Psychology (3)

Advisory: Psychology A100.
This course is an examination of the relationships between the brain and behavior and their application to self-management. The anatomy and physiology of the following will be explored: neurological disorders and their treatments, sensation, perception, sexuality, drug use, emotion, sleep, learning, memory, and internal bodily states. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

Psychology A260—Social Psychology (3)

The scientific study of the influence of others on an individual's mental processes and behavior. Topics explored include self-perceptions, attitudes and behavior, group influence and persuasion, attraction and relationships, stereotypes, prejudice, aggression, helping, and the application of social psychology to health, business, and law. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A270—Psychology of Learning (3)

Investigates types of learning, the background and research that led to their discovery, and current models of learning, memory, and problem solving. Critical and analytical thinking applied to instances of everyday learning and memory. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Psychology A280—Introduction to Experimental Methods (4)

Prerequisite: Psychology A100 and Psychology A160 or Mathematics A160 or Mathematics A160H or concurrent enrollment.
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 A110—Radiological Physics and Protection (3)

Prerequisite: Biology A221 and Technology A040.
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 A165—Beginning Radiologic Practice (1.5) (8 week course)

Prerequisite: Allied Health A111.
Introduction to the radiology environment, emphasizing professionalism, 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 A170—Radiographic Positioning and Critique 1 (3)

Prerequisite: Allied Health A111.
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 A171—Clinical Lab 1 (1) (8 week course)

Prerequisite or concurrent enrollment: Radiologic Technology A165 and Allied Health A115.
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 A172—Clinical Lab 2 (1) (4 week course)

Prerequisite or concurrent enrollment: Radiologic Technology A171.
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 A175—Radiographic Positioning and Critique 2 (3)

Prerequisite: Radiologic Technology A170.
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 A176—Clinical Lab 3 (5.5)

Prerequisite or concurrent enrollment: Radiologic Technology A171 and A172.
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 A177—Clinical Lab 4 (3) (8 week course)

Prerequisite: Radiologic Technology A176.
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 A180—Radiographic Imaging (3)

Prerequisite or concurrent enrollment: Technology A040.
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 A185—Radiographic Pathology (1) (8 week course)

Prerequisite: Radiographic Technology A170.
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.**

Radiologic Technology A216—Advanced Radiologic Patient Care (2) (8 week course)

Prerequisite: Allied Health A115.
Multi-skill preparation for the allied health professional including management communication skills and business management concepts, contrast media administration limited to the upper extremity, and basic electrocardiography. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Radiologic Technology A265—Principles of Digital Imaging and Computer Applications (2)

Prerequisite: Radiologic Technology A165.

Introduction to computer aided medical imaging as used in radiology 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 A270—Radiographic Positioning and Critique 3 (3)

Prerequisite: Radiologic Technology A175.

Radiographic positioning, film critique of advanced skull to include sinuses, TMJs, mastoid, 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 A271—Clinical Lab 5 (7.5)

Prerequisite or concurrent enrollment: Radiologic Technology A177.

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 A275—Radiographic Positioning and Critique 4 (3)

Prerequisite: Radiologic Technology A270.

Introduction to advanced imaging principles and procedures to include diagnostic specials, interventional angiography CT and MR sectional anatomy as related to these imaging procedures. 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 A276—Clinical Lab 6 (1) (4 week course)

Prerequisite or concurrent enrollment: Radiologic Technology A271.

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 A277—Clinical Lab 7 (5.5)

Prerequisite or concurrent enrollment: Radiologic Technology A276.

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.**

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Radiologic Technology A285—ARRT Board Preparation (1) (8 week course)

Prerequisite: Radiologic Technology A110.

Comprehensive categorical review of diagnostic radiologic technology in preparation for State and National Certification boards. Two hours. **Transfer Credit: CSU.**

Radiologic Technology A290—Applied Physics & Fluoroscopy (2.5)

Prerequisite: Radiologic Technology A110.

Applied principles of physics for 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 A110—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. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Real Estate A120—Legal Aspects of Real Estate (3)

Advisory: Real Estate A110.

Escrows, sales contracts, trust deeds, landlord tenant, liens, probate sales, joint tenancy, etc. Emphasizes the more complex aspects of real estate law. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Real Estate A130—Real Estate Practice (3)

Advisory: Real Estate A110.

Covers the day to day practice of real estate including sales, working with buyers and sellers, the listing and purchase agreement, finance, taxation, property management and investing for real estate. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Real Estate A140—Real Estate Appraisal (3)

Advisory: Real Estate A110.

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. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Real Estate A150—Real Estate Finance (3)

Advisory: Real Estate A110.

The factors of the general national economy, Federal Reserve System, sources of mortgage funds, money terms, real estate finance math, appraisal for financing purposes, loan processing, qualifying borrowers, assuming vs. subject to financing, various categories, and lending institutions. This course may also be offered online. Three hours. **Transfer Credit: CSU.**

Real Estate A190—Leasing of Commercial Properties (3)

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 pass-no pass basis. Six hours. **Transfer Credit: CSU.**

RELIGIOUS STUDIES

Religious Studies A100—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A110—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. Same as Philosophy A110. Students completing Religious Studies A110 may not receive credit for Philosophy A110. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A115—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. Same as Philosophy A115. Students completing Religious Studies A115 may not receive credit for Philosophy A115. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A120—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. Same as

Philosophy A120. Students completing Religious Studies A120 may not receive credit for Philosophy A120. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A125—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. A survey of how the Bible was written, compiled, copied, and transmitted to the present. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A128—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A130—Life and Times of Jesus (3)

A study of the historical situation of the world of Jesus's day and an investigation of the main outlines of his life and teachings. The contributions made by Judaism and the Greek and Roman worlds to the shaping of the Christian religion. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A140—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A145—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A150—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A160—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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Religious Studies A180—The Bible as Literature (3)

Advisory: English A100.

Read, analyze, and write on important Biblical works from both the Old and New Testament canon. Explore the historical, cultural, philosophical, and aesthetic implications of representative works, their origins and adoption. Formulate and produce written analysis of assigned works. Same course as English A141. Students completing Religious Studies A180 may not receive credit for English A141. Three hours. **Transfer Credit: CSU; UC.**

RESPIRATORY CARE

Respiratory Care A185—Respiratory Anatomy and Physiology (3)

Prerequisite: Biology A221.

Anatomy and physiology of the cardiopulmonary system with emphasis on function & clinical assessment by respiratory therapists. Includes pulmonary and cardiac anatomy, pulmonary ventilatory mechanics, pulmonary blood flow, oxygenation transport, hypoxemia and hypoxia, carbon dioxide transport, acid-base balance and regulation of respiration. Three hours. **Transfer Credit: CSU.**

Respiratory Care A190—Basic Respiratory Care Equipment (3)

Prerequisite: Respiratory Care A185

Corequisite: Respiratory Care A191 and A195.

Theories of equipment operation, procedures, and use for treatment of cardiopulmonary disease, including the use of humidity and aerosol, oxygen, infection control, hyperinflation techniques, basic ventilatory measurement, respirators, chest physiotherapy, and equipment related to compressed gases. Emphasis is placed on clinical application of equipment & techniques. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Respiratory Care A191—Clinical Lab 1 (1.5)

Corequisite: Respiratory Care A190 and A195.

Beginning clinical practice of procedures presented in Respiratory Care A190. 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 pass-no pass basis only. Eight hours laboratory/clinical. **Transfer Credit: CSU.**

Respiratory Care A192—Clinical Lab 2 (1) (4 week course)

Prerequisite: Respiratory Care A190 and A191.

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 pass-no pass basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

Respiratory Care A195—Respiratory Pharmacology (1) (8 week course)

Prerequisite: Respiratory Care A185.

Corequisite: Respiratory Care A190 and A191.

A study of the drugs used to treat respiratory pathologies and their administration. Includes bronchodilators, steroids, mucokinetics, antibiotics, and respiratory stimulants and depressants. Two hours. **Transfer Credit: CSU.**

Respiratory Care A255—Home Care and Rehabilitation (1) (8 week course)

Prerequisite or concurrent enrollment: Respiratory Care A190.

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 A260—Arterial Blood Gases, Theory and Practice (2.5)

Prerequisite: Respiratory Care A185.

Interpretation of arterial blood gases, arterial puncture technique, blood gas analysis. Interpretation of fluid and electrolyte imbalances, renal physiology on acid base control. Phlebotomy theory. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

Respiratory Care A265—Pulmonary Pathology (3)

Prerequisite: Respiratory Care A185.

The study of cardiopulmonary disease processes with emphasis on pathophysiology, manifestations, and treatment. Relates each disease state to evaluation, testing, and treatment. Three hours. **Transfer Credit: CSU.**

Respiratory Care A270—Ventilators and Respiratory Management (2)

Prerequisite or concurrent enrollment: Respiratory Care A260.

Corequisite: Respiratory Care A276.

Principles and techniques in the 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 for need for ventilatory support along with assessment for changes in ventilatory support techniques. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

Respiratory Care A275—Respiratory Care Procedures (3)

Prerequisite: Respiratory Care A185.

Corequisite: Respiratory Care A276.

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. Three hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Respiratory Care A276—Clinical Lab 3 (4) (14 week course)

Prerequisite: Respiratory Care A192.

Corequisite: Respiratory Care A270 and A275.

Clinical application of procedures & concepts from Respiratory Care A260, A270 and A275, continuing experience in the skills from Respiratory Care A191 and A192. Includes ABG puncture & analysis, airway management, artificial airways, bronchial hygiene, bronchoscopy, ventilatory management, patient assessment, monitoring, & other therapeutic measures related to patient treatment. Offered on a pass-no pass basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

Respiratory Care A278—Pulmonary Case Assessment (1) (4 week course)

Prerequisite: Respiratory Care A276.

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 A279—Physician Series 1 (.5) (8 week course)

Corequisite: Respiratory Care A276.

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 A280—Critical Care Monitoring (1) (14 week course)

Prerequisite: Respiratory Care A260 and A270.

Corequisite: Respiratory Care A286.

Theory, use, and application of medical techniques used to monitor cardiopulmonary status and advanced techniques of diagnosis and treatment. Includes hemodynamic monitoring and non-invasive blood gas monitoring. Two hours. **Transfer Credit: CSU.**

Respiratory Care A285—Pulmonary Function Testing (2) (14 week course)

Prerequisite: Respiratory Care A260 and A265.

Theory and application of pulmonary function testing by mechanical and electronic devices. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Respiratory Care A286—Clinical Lab 4 (3) (10 week course)

Prerequisite: Respiratory Care A276.

Corequisite: Respiratory Care A280 and A290.

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 pass-no pass basis only. Twenty-four hours clinical. **Transfer Credit: CSU.**

Respiratory Care A287—Clinical Internship (2) (4 week course)

Prerequisite: Respiratory Care A286.

Advanced clinical utilization of knowledge and skills in critical care or specialty areas. Cumulative application of assessment, diagnostic, therapeutic, and judgmental skills

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acquired within the Respiratory Care Program. Offered on a pass-no pass basis only. Forty hours laboratory/clinical. **Transfer Credit: CSU.**

Respiratory Care A290—Neonatal Intensive Care (2) (14 week course)

Prerequisite: Respiratory Care A260, A270 and A275.

Corequisite: Respiratory Care A286.

Theory & practice of neonatal intensive respiratory care with emphasis on the role of the R.C.P. Includes fetal anatomy & physiology, delivery & assessment, resuscitation, neonatal pathologies, respiratory care diagnostic & therapeutic procedures, & techniques for mechanical ventilation. Provider approved C.B.R.N, CEP #12655 for 56 hours. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

Respiratory Care A296—Respiratory Care Board Review (1.0) (8 week course)

Prerequisite: Respiratory Care A278.

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 A100—School Health Assistant (3)

The principles and skills required of a School Health Assistant in the educational setting. Includes the role and documentation of legal, and ethical responsibilities, cultural issues, office management, health records, and reporting. Students concerns to include physical findings, illnesses, emergency care, communicable diseases, screening, treatments, and medications. Three hours. **Transfer Credit: CSU.**

SOCIOLOGY

Sociology A105—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 of segments of nonverbal human interaction, including gesture, spatiality, body positions, and expression laughter. Foundations and developmental patterns of nonverbal dimensions are explored. Same as Anthropology A105. Students completing Sociology A105 may not receive credit for Anthropology A105. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Sociology A110—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 A150—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 A150. Students completing Sociology A150 may not receive credit for Anthropology A150. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Sociology A165—Introductory Human Sexuality 1 (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. Same as Psychology A165. Students completing Sociology A165 may not receive credit for Psychology A165. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Sociology A175—Human Sexuality 2 (3)

Prerequisite: Psychology A165 or Sociology A165.

An advanced course on human sexuality in which the social-psychological factors that affect sexual behavior will be explored. This course will examine the extent to which knowledge, preferences, lifestyle, awareness, and education affect sexuality. Same as Psychology A175. Students completing Sociology A175 may not receive credit for Psychology A175. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Sociology A180—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 A180H—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 A185—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 A185H—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 A190—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 A190. Students completing Sociology A190 may not receive credit for Ethnic Studies A190. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

SPANISH

Spanish A180—Elementary Spanish (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in Spanish, with an introduction to cultures related to the Spanish language. This course is equivalent to two years of high school Spanish. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Spanish A180H—Honors Elementary Spanish (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in Spanish, with an introduction to cultures related to the Spanish language. This course is equivalent to two years of high school Spanish. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Spanish A185—Elementary Spanish (5)

Prerequisite: Spanish A180 or completion of two years of high school Spanish with a grade of 'C' or better.

Continuation of Spanish A180, with further development of listening, speaking, reading, and writing proficiency, and additional exploration of cultures related to the Spanish language. This course is equivalent to three years of high school Spanish. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Spanish A185H—Honors Elementary Spanish (5)

Prerequisite: Spanish A180H or completion of two years of high school Spanish with a grade of 'C' or better.

Continuation of Spanish A180H, with further development of listening, speaking, reading, and writing proficiency, and additional exploration of cultures related to the Spanish language. This course is equivalent to three years of high school Spanish. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Spanish A180 and A185 are not recommended for native speakers of that language.

Spanish A190—Conversational Spanish (3)

Prerequisite: Spanish A185.

The focus is on improving listening comprehension and oral competency to facilitate communication; reading, writing and cultural components are included. Designed to further the student's ability to comprehend and communicate in Spanish. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Spanish A199—Current Topics in Spanish (2-5) (16 week course)

Development of listening, speaking, reading, and writing proficiency in Spanish. Extensive exposure to cultures related to the Spanish language through authentic materials and group discussions on a variety of topics ranging from current events to global issues. Emphasis on cross-cultural understanding. This course may also be offered online. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two to five hours. **Transfer Credit: CSU.**

Spanish A260—Spanish for Spanish Speakers (5)

The focus is on improving proficiency in listening, speaking, reading, and writing in Spanish, with particular attention paid to the unique needs of Spanish-speaking students and to the linguistic and cultural diversity of the Spanish-speaking world. This course is taught in Spanish. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Spanish A280—Intermediate Spanish (5)

Prerequisite: Spanish A185.

Continuation of Spanish A185, with further development of language skills at the intermediate level and exploration of cultures related to the Spanish language. Additional emphasis on reading and writing, with an introduction to selected literary works. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Spanish A280H—Honors Intermediate Spanish (5)

Prerequisite: Spanish A185H.

Continuation of Spanish A185, with further development of language skills at the intermediate level and exploration of cultures related to the Spanish language. Additional emphasis on reading and writing, with an introduction to selected literary works. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Spanish A285—Intermediate Spanish (5)

Prerequisite: Spanish A280 or A280H.

Continuation of Spanish A280, with further refinement of language skills at the intermediate level and investigation of cultures related to the Spanish language in preparation for higher level specialized work. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

SPEECH COMMUNICATION

Speech Communication A100—Interpersonal Communication (3)

Teaches effective communication skills through the study of self-concept, listening, perception, language usage, persuasion, and nonverbal communication. Emphasis is on developing and applying good communications skills and overcoming the barriers to effective communication. Writing and speaking skills are emphasized and evaluated. Three hours. **Transfer Credit: CSU.**

Speech Communication A105—Intrapersonal Communications (3)

Designed to teach students effective communication processes with and about oneself. Emphasis is on developing a greater self-awareness and self-esteem by studying cognitive science, whole brain learning, language and symbolic processing, perception, and nonverbal communication skills. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU.**

Speech Communication A110—Public Speaking (3)

Designed to teach students how to overcome stage fright and to develop organizational, 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 A120—Reader's Theater and Oral Interpretation (3)

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 A130—Argumentation and Persuasion (3)

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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Speech Communication A150—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. This course may be taken four times. One hour lecture, zero to nine hours non-lecture. **Transfer Credit: CSU.**

Speech Communication A155—Intercultural Communications (3)

The study, practice, and application of communication theories as they relate to different cultural, subcultural, ethnic, and racial groups. Emphasis 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 pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Speech Communication A165—Men, Women, and Communication (3)

Major issues will be addressed regarding communication behaviors and communication conflicts between men and women of all gender orientations. Study will focus on problem analysis specific to gender self-awareness, gender conflict and how gender is communicated and constructed in our daily lives. Same as Gender Studies A165. Students completing Speech Communication A165 may not receive credit for Gender Studies A165. Three hours. **Transfer Credit: CSU.**

Speech Communication A170—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 pass-no pass basis. Three hours. **Transfer Credit: CSU.**

SPEECH-LANGUAGE PATHOLOGY ASST

Speech-Language Pathology Assistant A100—Introduction to Speech-Language Pathology Assistant (2)

An introduction to the Speech Language Pathology Assistant career. Professional standards and responsibilities, legal and ethical issues, interdisciplinary and supervisory relations, 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 A115—Speech, Language, and Hearing Development (3)

Developmental functions of speech, language, hearing and swallowing mechanisms, including acquisition of morphology, semantics, syntax, pragmatics, and phonology from birth to adolescence. Language development models and language differences discussed. Anatomy and physiologic function pertaining to speech, swallowing, and hearing mechanisms. Three hours lecture, one hour lab. **Transfer Credit: CSU.**

Speech-Language Pathology Assistant A120—Speech-Language Administrative Procedures (2)

Organizational and functional skills required in the speech pathology workplace. Emphasis on office management, client interaction requirements, communication techniques, educational techniques, writing skills related to speech-language pathology, scheduling, and computer applications. Two hours lecture, one hour lab. **Transfer Credit: CSU.**

Speech-Language Pathology Assistant A140—Introduction to Communication Disorders (3)

Study of communicative disorders in both children and adults to include classification and prevalence, types of disorders, diagnostic techniques, remediation of speech and language, and treatment protocols. The role of the speech-language pathologist and audiologist is covered. Three hours. **Transfer Credit: CSU.**

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Speech-Language Pathology Assistant A150—Introduction to Phonetics (3)

Corequisite: Speech-Language Pathology Assistant A140.

An introduction to phonetics including the analysis, description, and transcription of speech. The course encompasses speech production, acoustics, International Phonetic Alphabet, fine phonetic transcription, 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 A160—SLPA Clinical Experience 1 (.5) (4 week course)

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 pass-no pass basis only. Four hours clinical observation, one hour arranged. **Transfer Credit: CSU.**

Speech-Language Pathology Assistant A180—Screening and Therapeutic Processes (3)

Prerequisite: Speech-Language Pathology Assistant A140.

Screening procedures and equipment used in evaluation of client status and development of treatment protocols. Therapeutic techniques, use of protocol forms, checklists and anecdotal records for speech, hearing, and language disorders. This course includes therapeutic procedures used in client protocol applications and in patient safety issues. Two hours lecture, three hours lab. **Transfer Credit: CSU.**

Speech-Language Pathology Assistant A190—SLPA Clinical Experience 2 (2)

Corequisite: Speech-Language Pathology Assistant A180.

Application of clinical practice procedures and techniques as required of a speech-language pathology assistant under the supervision of a speech language pathologist. Offered on a pass-no pass basis only. Twelve hours clinical, one hour discussion. **Transfer Credit: CSU.**

Speech-Language Pathology Assistant A200—Adult and Geriatric Disorders (2)

Prerequisite: Speech-Language Pathology Assistant A180.

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.**

Speech-Language Pathology Assistant A250—SLPA Clinical Experience 3 (4)

Prerequisite: Speech-Language Pathology Assistant A180 and A190.

Advanced application of clinical practice procedures and therapeutic techniques performed under the guidance of a speech pathologist. Client observation, treatment protocols, record keeping procedures, and discussion of case study management issues are also covered. Sixteen hours clinical, two hours discussion. **Transfer Credit: CSU.**

TECHNICAL WRITING

(See English A105)

TECHNOLOGY

Technology A040—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 pass-no pass basis. Four hours.

THEATRE ARTS

Theatre Arts A100—Introduction to Theatre (3)

An introductory lecture course which explores the process of creating theatre today, including the contributions of the playwright, actor, director and designer. Plays of varying genres will be viewed and discussed. Students will attend and review two OCC-produced plays. Three hours. **Transfer Credit: CSU; UC.**

Theatre Arts A101—Introduction to History and Literature of the Theatre (3)

Follows the development of Western theatre from the Ancient Greeks to today. Important plays from each era will be viewed and discussed. The contributions of culture, playwright, actor, director and designer on the theatre of each era will be explored. Students will attend and review one OCC theatre production. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Theatre Arts A104—Improvisation (3)

The student will rehearse and perform individual and group improvisational scenes and exercises. The goal of the course is to help performers work with ease in front of an audience or camera. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Two hours lecture, two hours studio. **Transfer Credit: CSU; UC.**

Theatre Arts A105—Drama and Acting (3)

An introduction to acting and dramatic literature. Includes analysis of plays and dramatic structure, rehearsal techniques and performance of scenes and monologues. Three hours. **Transfer Credit: CSU; UC.**

Theatre Arts A106—Acting Fundamentals (3)

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 pass-no pass basis. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

Theatre Arts A107—Acting 2 Fundamentals (3)

A continuation of acting craft begun in Theatre Arts A106. 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 A108—Comedy Workshop (3)

An 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 pass-no pass basis. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A109—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 pass-no pass basis. This course may be taken two times. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A110—Theatre Laboratory (2)

Students will work on OCC stage productions under faculty supervision. Technical tasks including lighting, scenery building and painting, prop building and sound as well as other non-acting assignments will be completed. This course may be taken four times. Six hours laboratory. **Transfer Credit: CSU; UC.**

Theatre Arts A115—Acting for Camera and Stage (3)

Explores the translation of stage acting techniques into film and television acting. May be taken for grades or on a pass-no pass basis. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A141—OCC Theatre Repertory (1-3)

Students will plan and produce several plays. All aspects of play production including directing, acting, design, publicity, technical production and house management will be practiced. This course extends and enriches experience beyond previous beginning acting and technical courses. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, two to eight hours non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A144—Summer Theatre Festival (4)

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 pass-no pass basis. Four hours lecture, sixteen hours laboratory. **Transfer Credit: CSU; UC.**

Theatre Arts A145—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. This course may be taken two times. One hour lecture, seven hours studio. **Transfer Credit: CSU; UC.**

Theatre Arts A165—Stagecraft Lab (1)

Introduction to stage craft activities including scenery construction, set painting, light rigging, stage props and theatre operations. This course may be taken four times. One hour lecture, two hours non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A170—Stage Crew Activity (1)

The student will help produce an OCC stage production. One or more elements of technical theatre will be explored including scenic and prop construction, scene painting, or stage lighting. Strongly recommended for theatre majors. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Three hours studio. **Transfer Credit: CSU; UC.**

Theatre Arts A171—Play Production - Cast and Crew (2)

Participation in plays presented to the community. Students will participate in one or more areas including technical production, stage management, acting or house management. Assignments will be given upon enrollment. Actors must pass auditions. Strongly recommended for theatre majors. May be taken for grades or on a pass-no pass basis. This course may be taken four times. Two hours lecture, ten hours studio. **Transfer Credit: CSU; UC.**

Theatre Arts A172—Elizabethan Play Workshop and Production (3)

Study and participation in productions of plays from or influenced by the Elizabethan era. Students will explore social and moral attitudes and customs of the period. Students may concentrate on one or more of the following areas: acting, stage management, house management or technical work. All actors must pass auditions. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, seven hours non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A173—Classic American Play Production (2)

Students will participate in the production of a classic American play written before 1999. Students will be involved in one of the following areas of concentration: assistant directing, stage management, acting, design and technical assignments, or house management. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, five hours non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A174—Children's Theatre Workshop and Production (2)

Participation in a children's theatre production presented to the community. Students 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 pass-no pass basis. This course may be taken four times. One hour lecture, five hours non-lecture. **Transfer Credit: CSU; UC.**

Theatre Arts A175—Stage Scenery (3)

An in-depth study of all the diverse theatre crafts such as scenery construction, scene painting, and properties, and a survey study of theatre design. The historical development and major trends of stagecraft will be studied. Students 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 pass-no pass basis. This course may be taken two times. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

Theatre Arts A176—Stage Lighting (3)

An introductory course in the theories of stage lighting that includes lighting design, basic electronics, color, projection, and types, uses, and maintenance of lighting equipment. Students will participate in the lighting of college productions. Required for student planning to transfer to CSU Long Beach and UCI. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

Theatre Arts A177—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. This course may be taken four times. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

Theatre Arts A178—Costume Crafts (3)

An introduction to costuming techniques for the theatre and entertainment industry. Topics include basic costume construction and alteration techniques, costume craft tools and materials, mask making and an introduction to costume design methods. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

Theatre Arts A188—Body Movement for the Actor (3)

Instruction in using the body as an expressive instrument in performance. Strength, flexibility, relaxation, control, and body relationship will be studied. May be taken for grades or on a pass-no pass basis. Three hours lecture, one hour studio. **Transfer Credit: CSU; UC.**

Theatre Arts A189—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 pass-no pass basis. Two hours lecture, two hours studio. **Transfer Credit: CSU; UC.**

Theatre Arts A200—Voice and Articulation (3)

This course explores vocal techniques for actors including warm-up techniques, phonetics, projection, articulation and the use of regional accents. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

Theatre Arts A206—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 A207—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 A215—Rehearsal and Performance (2)

Participation in the rehearsal and public performance of a theatrical production. Area of involvement (acting, technical, house management) will be determined by instructor with student to satisfy individual expectations. One hour lecture, three hours studio. **Transfer Credit: CSU; UC.**

Theatre Arts A271—Elements of Stage Design (3)

An intense study of stage design techniques going far beyond the introductory stage. 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 A275—Directing (2)

An examination of the basic principles and problems in stage direction. Students will complete directing assignments by directing a student production or special project, assisting a faculty director with a production, or stage managing a faculty-directed play. This course may be taken four times. Three hours lecture, four hours studio. **Transfer Credit: CSU; UC.**

Theatre Arts A276—Performing Arts Management (2)

Economic and administrative aspects of American theatre and performing arts applied to repertory, community, and educational organizations. Administrative assignments, including stage management, related to stage productions, as well as other performances. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

TOOL DESIGN

(See Manufacturing Technology)

TUTORING

Tutoring A050—Supervised Tutoring (0)

Supervised peer tutoring in academic courses for students who want assistance with course content and/or study skills. This is an open entry/open exit course. Offered on a pass option basis only. This course may be taken four times. Two hours arranged. Not applicable to AA or AS degree.

Tutoring A060—Supervised Study (0)

Supervised learning for student academic assistance to help students in historically difficult classes master content while they develop and integrate learning and study strategies. Enrollment is open all semester. Not applicable to an AA/AS degree. This course may be taken four times. One and one-half to six hours arranged.

Tutoring A150—Tutoring Skills/Student Success Center (1)

Designed for students who meet the criteria to be tutors in one of the Student Success Center. Tutoring skills development in the areas of interpersonal and communication skills, learning styles, study skills techniques, diversity/cultural awareness, and Socratic method. Open entry/open exit. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, two hours non-lecture. Not applicable to AA or AS degree. **Transfer Credit: CSU.**

VIETNAMESE

Vietnamese A180—Elementary Vietnamese (5)

The focus is on development of elementary proficiency in listening, speaking, reading, and writing in Vietnamese, with an introduction to cultures related to the Vietnamese language. This course is equivalent to two years of high school Vietnamese. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Vietnamese A185—Elementary Vietnamese (5)

Prerequisite: Vietnamese A180 or completion of two years of high school Vietnamese with a grade of 'C' or better.

Continuation of Vietnamese A180, with further development of listening, speaking, reading, and writing proficiency, and additional exploration of cultures related to the Vietnamese language. This course is equivalent to three years of high school Vietnamese. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Vietnamese A280—Intermediate Vietnamese (5)

Prerequisite: Vietnamese A185.

Continuation of Vietnamese A185, with further development of language skills at the intermediate level and exploration of cultures related to the Vietnamese language. Additional emphasis on reading and writing, with an introduction to selected literary works. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

Vietnamese A285—Intermediate Vietnamese (5)

Prerequisite: Vietnamese A280.

Continuation of Vietnamese A280, with further refinement of language skills at the intermediate level and investigation of cultures related to the Vietnamese language in preparation for higher level specialized work. May be taken for grades or on a pass-no pass basis. Five hours. **Transfer Credit: CSU; UC.**

WELDING TECHNOLOGY

Welding Technology A100—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 A101—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 A102—Weld Testing GMAW (.5)

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 Specialization. A Certification Certificate will also be issued for the appropriate level. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. This course may be taken four times. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A103—Weld Testing GMAW (.5)

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. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. One and one-half hours to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A104—Weld Testing GTAW (.5)

Weld testing for mastery of level I in Gas Tungsten Arc Welding process. When completed, may lead to Certificate of Specialization. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A105—Weld Testing Basic (.5)

Weld testing for mastery of levels I, II, III or IV in Shielded Metal Arc Welding process. When completed, may lead to Certificate of Specialization. A Certification Certificate will also be issued for the appropriate level. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. This course may be taken four times. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A106—Weld Testing Intermediate (.5)

Weld testing for mastery of levels V and/or VI in the Shielded Metal Arc Welding process. When completed, may lead to a Certificate of Specialization. A Certification Certificate will also be issued for appropriate levels upon successful completion. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. This course may be taken two times. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A107—Weld Testing Advanced (.5)

Weld testing for mastery of levels VII, VIII, and/or IX in Shielded Metal Arc Welding. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. This course may be taken three times. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A108—Weld Testing Advanced (.5)

Weld testing for mastery of levels I, II, III, and/or IV in Flux Cored Arc Welding. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. This course may be taken four times. One and one-half hours to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A109—Weld Testing FCAW (.5)

Weld testing for mastery of levels V, VI, VII, VIII in Flux Cored Arc Welding. When completed, may lead to Certificate of Specialization. A certification will also be issued for the appropriate level upon successful completion. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. This course may be taken four times. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A110—Weld Testing FCAW (.5)

Weld testing for mastery of levels IX in Flux Cored Arc Welding. When completed, may lead to Certificate of Specialization. A certification will also be issued for the appropriate level upon successful completion. Enroll only when ready to test. Fee charged for qualification test. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A111—Weld Testing Pipe (.5)

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. Enroll only when ready to test. Fee charged for qualification test. Offered on a pass-no pass basis only. This course may be taken two times. One and one-half to twenty-seven hours laboratory. **Transfer Credit: CSU.**

Welding Technology A115—Arc and Oxy-acetylene Welding Practice (1-2)

Prerequisite: Welding Technology A100 or concurrent enrollment.

A laboratory class to develop skills in arc and oxy-acetylene welding. This course may be taken four times. Three to six hours laboratory. **Transfer Credit: CSU.**

Welding Technology A120—Mathematics & Fabrication Layout for Welders (3)

The study of mathematics to prepare welders for job skills requiring fabrication layout. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

Welding Technology A122—Beginning Welding (1.5)

A beginning course in arc and oxy-acetylene welding covering safety practices, use of welding, brazing, thermal and mechanical cutting equipment operations on various types of metal. This course may be taken four times. Three hours lecture/laboratory. **Transfer Credit: CSU.**

Welding Technology A123—Advanced Welding (1.5)

Prerequisite: Welding Technology A122.

An advanced welding course teaching the theory and practice of joining ferrous and non-ferrous metals. Includes certification requirements joint design and use of welding symbols. Lectures include preparation for Los Angeles City testing. This course may be taken four times. Three hours lecture/laboratory. **Transfer Credit: CSU.**

Welding Technology A130—Gas Tungsten Arc Welding (1.5)

Prerequisite: Welding Technology A100, A101 or A122.

GTAW (Gas Tungsten Arc Welding) theory and practice covering aluminum and stainless steels and qualification requirements. May be taken for grades or on a pass-no pass basis. This course may be taken four times. One hour lecture, Two hours laboratory. **Transfer Credit: CSU.**

Welding Technology A180—Blue Print Reading (2)

A basic course in the reading of blueprints associated with the welding fabrication industry. Two hours lecture, one hour laboratory. **Transfer Credit: CSU.**

Welding Technology A200—Advanced Welding (3)

Prerequisite: Welding Technology A100, A101 or A122.

Advanced welding theory and practice covering thermal cutting, oxy-acetylene and gas shielded arc welding processes, welding of ferrous and non-ferrous metals, qualification and certification requirements to Los Angeles City and American National Standards Institute, use of welding symbols. May also enroll in Welding Technology A215 for additional laboratory units. Each 54 hours of laboratory time earns one unit. Will be given credit for the laboratory course appropriate for the number of hours worked. Two hours lecture four hours laboratory. **Transfer Credit: CSU.**

Welding Technology A201—Advanced Welding (4)

Prerequisite: Welding Technology A100 or A101.

Advanced welding theory and practice, covering thermal cutting, oxy-acetylene welding and welding of ferrous and non-ferrous metals, qualification and certification requirements to Los Angeles City and the American National Standards Institute. May also enroll in Welding Technology A215 for additional laboratory units. Each 54 hours of laboratory time earns one unit. Will be given credit for the laboratory course appropriate for the number of hours worked. Same as Welding Technology A200 but with added lab hours. Two hours lecture, six hours laboratory. **Transfer Credit: CSU.**

Welding Technology A210—Welding Inspection and Testing (4)

This course covers physical tests, metallographic analysis, visual inspection, non-destructive examination of welds and chemical analysis of metals and alloys. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

Welding Technology A211—Gas Metal Arc Welding Training (1)

Prerequisite: Welding Technology A100, A101 or A122.

This course teaches Gas Metal Arc Welding Theory and practice on ferrous and non-ferrous metals covering welding standards set by the American Welding Society, American National Standards Institute and I-CAR in preparation for qualification and certification requirements. Students may also enroll in Welding A115 or A215 for additional laboratory units. Each 54 hours of laboratory time earns one unit. Students will be given credit for laboratory course appropriate for the number of hours worked. This course may be taken two times. One hour lecture, four hours laboratory. **Transfer Credit: CSU.**

Welding Technology A215—Continuing Arc and Oxy-acetylene Laboratory (1-2)

Prerequisite: Welding Technology A200, A201, or concurrent enrollment.

This is a laboratory course to develop skills in Shielded metal Arc (ARC welding), oxy-acetylene, GTAW (TIG), and GMAW (MIG) welding. This course may be taken four times. Three to six hours laboratory. **Transfer Credit: CSU.**

Welding Technology A220—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 A230—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 A250—Pipe Welding (3)

Prerequisite: Welding Technology A200 or A201.

Oxygen-Acetylene, Shielded Metal Arc, Gas metal Arc and Gas Tungsten Arc Welding of pipe for welder qualification to achieve American National Standards (ANSI) certification. This course may be taken four times. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

Welding Technology A255—Orbital Welding (1.5)

Prerequisite: Welding Technology A100, A101 or A122.

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. This course may be taken four times. One hour lecture, Two 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 A100 and **POLITICAL SCIENCE** A180 (or A180H): maximum credit, one course.

ARCHITECTURAL TECHNOLOGY A110, A115, A205, A215, A290 (or A296), ART A110, A120 (or A120H): any or all of these courses combined - maximum credit, 18 units.

ARCHITECTURAL TECHNOLOGY A290 and A296: maximum credit, one course.

BIOLOGY A100: no credit if taken after A181.

BIOLOGY A220 (or A220H), A221, A225 (or A225H): maximum credit, two courses.

BUSINESS A110 and A115: maximum credit, one course.

CHEMISTRY A100/A100L, A101, A110, A130: maximum credit, one course.

CHEMISTRY A100, A100L, A101, A110, A130: no credit if taken after A180.

DANCE A106, A108, A128, A135, A139, A195, A203, A208: limit with Physical Education Activities and Marine Activities to a maximum of four units.

DRAFTING A150: maximum credit, one course.

ECOLOGY A110 and **MARINE SCIENCE** A185: maximum credit, one course.

ECONOMICS A100: no credit if taken after A180 or A185

ECONOMICS A177 and **HISTORY** A177: maximum credit, one course

ENGLISH A121, A122, A126, A127: maximum credit, two courses from each series.

ENGLISH AS A SECOND LANGUAGE A160, A199: any or all of these courses combined - maximum credit, 8 units.

FILM A110 and A240: maximum credit, one course.

GEOLOGY A100 (or A100H) and A100L (or A100M): if concurrently enrolled in or taken after A180, no credit.

HEALTH EDUCATION A100 and A120: maximum credit, one course.

HEALTH EDUCATION A134 - see **PHYSICAL EDUCATION** A134 for credit limitation.

HISTORY A100, A170 (or A170H) and A175 (or A175H): maximum credit, two courses.

HISTORY A177 and **ECONOMICS** A177: maximum credit, one course

HISTORY A178, A175 (or A175H), A179 combined: maximum credit, two courses.

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 A185 and **ECOLOGY** A110: maximum credit, one course.

MATHEMATICS A104 and A106: maximum credit, one course.

MATHEMATICS A130 and A170 - maximum credit, 4 units.

MATHEMATICS A180 (or A180H) and A182H: maximum credit, one course.

MATHEMATICS A160 (or A160H) and **PSYCHOLOGY** A160: maximum credit, one course.

MATHEMATICS A185 (or A185H) and A182H: maximum credit, one course.

MUSIC A115: no credit if taken after A180.

NATURAL SCIENCE A100, A105 and A106: maximum credit, 6 units. No credit for **NATURAL SCIENCE** A100 if taken after a college level physical or biological science course.

NATURAL SCIENCE A105: no credit if taken after a college level Physical Science course.

NATURAL SCIENCE A106: no credit if taken after a college level Biological Science course.

NATURAL SCIENCE A112: no credit if taken after a college level course in Astronomy or Physics.

ORNAMENTAL HORTICULTURE A181 and A182: maximum credit, one course.

PHILOSOPHY A120 and **RELIGIOUS STUDIES** A120: 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 A134, **PHYSICAL EDUCATION** A134, A274 and A281: maximum credit, 8 units.

PHYSICS A110/A111: no credit if taken after A120, A130 or A185.

PHYSICS A120/A125, A130/A135, A185/A280/A285: maximum credit, one series.

POLITICAL SCIENCE A180 (or A180H) and **AMERICAN STUDIES** A100: maximum credit, one course.

PSYCHOLOGY A110 and A220: maximum credit, one course.

PSYCHOLOGY A160 and **MATHEMATICS** A160 (or A160H): maximum credit, one course.

PSYCHOLOGY A165, **SOCIOLOGY** A165, **PSYCHOLOGY** A175 and **SOCIOLOGY** A175: maximum credit, one course.

RELIGIOUS STUDIES A120 and **PHILOSOPHY** A120: maximum credit, one course.

SPANISH A185 (or A185H) and A260: maximum credit, one course.

SPEECH COMMUNICATION A130 and A140: maximum credit, one course.

THEATRE ARTS A100 and A101: maximum credit, one course.



FACULTY

ABERNATHY, DEAN (2008)

Instructor, Architecture
B.A., *California Polytechnic State University, San Luis Obispo*
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AKERS, THOMAS M. (1975)

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PETERS, TIMOTHY (1999)

Associate Professor, Construction Technology
Vocational Equivalency

PETTUS, CANDICE (2001)

Associate Professor, Anthropology/Sociology
A.A., Orange Coast College
B.A., M.A., California State University, Fullerton

PHAM, LIEN (2006)

Instructor, Psychology
B.A., M.A., Ph.D., University of California, Los Angeles

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

POLK, SHERANA (2008)

Instructor, Speech
B.A., Carroll College
M.A., California State University, Northridge

RAILEANU, LIA (1999)

Professor, French
M.A., University of Iassy, Romania

RANGNO, ERIK (2007)

Instructor, English
B.A., University of California, Berkeley
M.A., University of California, Irvine

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

REED, CHARLENE (2007)

Instructor, Interior Design
B.A., California State University, Long Beach
M.A., Pepperdine 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

RUSSELL, GREGORY (2008)

Instructor, Biological Sciences
B.S., University of Wyoming
Ph.D., University of California, Riverside

SACHS, LOREN (2004)

Assistant Professor, /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

SAM, THINH Q. (2006)

Instructor, Math
B.S., M.S., University of Colorado

SCANE, DANIELLE (2006)

Instructor, Business
B.A., Arizona State University
M.S., Amberton University

SCHNEIDERMAN, ROBERT (1997)

Professor, Counseling Services
B.S., Arizona State University
M.A., Chapman 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)

Associate 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
NCSA Certification
B.S., M.S., Iowa State University

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)

Assistant Professor, Physical Education and Athletics
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)

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)

Professor, Architecture
A.A., Orange Coast College
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

STUART, JOHN (2007)

Instructor, HVAC
B.A., M.A., California State University, Long Beach

SUGDEN, JAMES (2008)

Instructor, Accounting
B.A., California State University, Northridge
M.B.A., University of Southern California

SUOZZO, JOANNE (1989)

Professor, English
B.A., Northwestern University
M.A., University of Redlands

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

TOM, EILEEN (2008)

Counselor
B.A., California State University, Long Beach
M.A., University of California, Los Angeles

TOPPING, HOLLY (2008)

Instructor, Art
B.F.A., Otis College of Art and Design
M.F.A., University of California, Irvine

TRAVER, MARIA (2007)

Counselor, Puente Coordinator
A.A., Irvine Valley College
B.S., California State University, Fullerton
M.A., California State University, Long Beach

VOICU, MARIANA C. (2001)

Associate Professor, Mathematics
B.A., *California State University, San Bernardino*
M.S., *University of California, Irvine*

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)

Associate 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*

WHEATON, DANA (1991)

Assistant Professor, Music
B.A., *California State University, Humboldt*
M.A., *California State University, Long Beach*

WHITRIDGE, ROGER A. (1999)

Professor, Art
M.A., *California State University, Long Beach*
M.F.A., *Claremont Graduate School*

WICKREMESINGHE, MANOJ (2005)

Counselor, Articulation Officer
B.A., *University of California, Los Angeles*
M.A., *California State University, Fullerton*
M.A., *California State University, Dominguez Hills*
Ed.D., *University of Southern California*

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*

YETT, JAY R. (1984)

Professor, Geology/Natural Science
B.S., *University of Idaho*
M.S., *University of Washington*

YOUNG, RICHARD (2008)

Instructor, Aviation Pilot Training
B.A., *Norwich University*
M.A., *Embry-Riddle University*

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)

Associate 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 and Dental Advisors for the School of Allied Health Professions

STRATTON, SAM, 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

CHAYASIRISOBHON, SIRICHAJ
Neurodiagnostic Technology

LIM, LESTER, D.D.S.
Dental Assisting

STRICH, GIDEON, M.D.
Diagnostic Medical Sonography
Radiology Technology

SELECKY, PAUL, M.D.
Polysomnography
Respiratory Care



Major Clinical Affiliates for the School of Allied Health Professions

American Heart Association
Anaheim Memorial Medical Center, Anaheim
Cardiology Specialist of Orange County, Santa Ana
Care Ambulance Services, Inc., Orange
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 Learning Connections, Inc., Santa Ana
Children's Speech Center, Torrance
Desert Medical Imaging, Indio
Desert Regional Medical Center, Palm Springs
Doctor's Ambulance Service, Laguna Hills
Encino/Tarzana Regional Medical Center
Fallbrook Hospital, Fallbrook
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 Hospital Sleep Disorder Center, Pasadena
Inland Valley Regional Medical Center, Murrieta
Irvine Regional Hospital and Medical Center, Irvine
Kaiser Foundation Hospitals, Southern California Region
Lakewood Regional Medical Center, Lakewood
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
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
Obsterix, Inc., Long Beach
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 Cardiovascular Associates, Costa Mesa
Pomona Valley Hospital Medical Center, Pomona
Pomona Valley Sleep Disorders Center, Pomona
Presbyterian Intercommunity Hospital, Whittier
Providence Health System - Little Company of Mary, Torrance
Providence Health System - St. Joseph Medical Center, Burbank
Rancho Los Amigos Hospital, Downey
Saddleback Memorial Medical Center, Laguna Hills and San Clemente
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
Sleep Center of Orange County, Irvine
South Coast Medical Center, Laguna Beach
Stanford University Medical Center, Stanford
Torrance Memorial Medical Center, Torrance
Tri-City Medical Center, Oceanside
UCI Medical Center, Orange
UCLA Neuropsychiatric Institute, Los Angeles
UCLA School of Dentistry, Los Angeles
UCLA Sleep Disorders Center, Los Angeles
UCSF Stanford Healthcare, San Francisco
Veterans Administration Medical Center, Long Beach
West Anaheim Medical Center, Anaheim
Western Medical Center, Santa Ana
Western Medical Center – Anaheim
Numerous Skilled Nursing Facilities, Convalescent Hospitals, Clinics, Physicians' and Dental Offices,
and Ambulance Services



EMERITUS

Members of the full-time faculty and academic administrators are granted emeritus status upon their retirement in recognition of their service to the college.

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

ATTORE, LOIS SHAFQAT

Professor, Psychology
1979-06

BAKER, EDWARD R.

Dean, Fine Arts
1968-98

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

BISE, ROBERT G.

Professor, Economics
1965-2009

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, GILES T.

Professor, History
Charter Faculty
1948-59

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
1966-04

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

CARNETT, JAMES**CARLSON, LAWRENCE A.**

Professor, English
1966-00

CARTER, MINETTE (Mrs.)

Professor, French
1966-04

CARY, BRUCE

Professor, Counseling Services; Articulation Officer
1972-03

CASADOS, VICTOR G.

Professor, Art
1967-07

CESAREO, MILJENKO

Professor, Physics
1964-89

CHARD, RICHARD

Administrative Dean, Vocational Education
1980-92

CHARDONNAY, CAROLE

Professor, Music
1974-2008

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*

CLARK, LINDA S.

*Professor, Early Childhood Education
1986-2006*

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*

DANZIGER, LESLEY

*Professor, English
1990-06*

DECKER, KAREN G. A.

*Professor, Fine Arts
1970-04*

DENISON, FRANK E.

*Professor, Construction Technology
1966-88*

DENTON, BOB C.

*Professor, Mathematics
1986-06*

DIMSDALE, JEFFREY M.

*Dean, Student Services
1968-00*

DONOFF, SHARON K.

*Vice President, Student Services
1971-00*

DOSS, RICHARD

*Professor, Philosophy
1971-95*

DUDDRIDGE, DOROTHY

*Professor, Dance
1961-84*

EASTMAN, JUDITH B.

*Professor, English
1974-00*

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*

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*

GOSHERT, DAVID F.

*Professor, Business Education
1977-07*

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

HANCHETT, FLORENCE L.

Associate Professor, Sociology
1969-03

HANCOCK, ROBERT J.

Professor, Mathematics/Engineering
1969-03

HARMER, ANN TONN

Professor, Biological Sciences
1978-08

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

HUANG, ELEANOR B.

Professor, Dietetic Technology
1976-09

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
1965-04

JAMES, GARY

Dean, Math and Sciences, Professor
1967-93

JARMAN, DAVID L.

Professor, Construction Technology
1975-98

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

KAGLEY, DORIS

Professor, Counseling Services
1961-93

KARASUDA, SHIN

Professor, Computer Science
1973-09

KARR-POWELL, ARLENE

Professor, Music
1976-95

KRYDER, NANCY G.

Professor, Biological Sciences
1973-09

KIDDER, NANCY

Administrative Dean, Enrollemt Services
1975-07

KLAMMER, KAREN

Associate Professor, Business Education
1976-04

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

LATTANZIO, STEPHEN P.

Professor, Astronomy/Natural Science
1975-09

LE BRANE, LAWRENCE P.

Professor, Art
1971-03

LEIGH, MICHAEL G.

Professor, Speech
1976-08

LENANTON, JOHN

Professor, Ornamental Horticulture
1970-06

LEVITON, CHARLES D.

Professor, Psychology
1969-03

LEWIS, RALPH F.

Professor, Economics
1969-04

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

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;
Baseball Coach*
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

MECKE, CHARLOTTE P.

Professor, English and Education
1964-91

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

MORIN, SYLVETTE

*Professor, English as a
Second Language*
1989-99

NASBY, DAVID P.

Professor, Mathematics
1963-98

NEDOFF, CHARLES

Professor, Sociology
1956-88

NETOLICZKA, ELISABETH

Associate Professor, Spanish
1991-04

O'KEEFFE, THOMAS

Assistant Professor, English
1979-00

OSBERHAUS, MARY ANN

Professor, Marketing/Management
1967-98

OLDS, MICHAEL V.

Professor, Economics
1983-07

OLSON, JUDITH O.

Professor, Airline and Travel Careers
1974-04

OSBORNE, TOM

Professor, Business Education
1954-83

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
1957-93

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

PRIDY, BARBARA J.

Professor, Business Education
1973-98

RAGNOVICH, CHRISTINE

Professor, Political Science
1989-08

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
1977-03

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
1949-83

ROMANS, VAN A.

Professor, Fine Arts
1973-03

ROSE, JUDY

Professor, Dental Assisting
1976-07

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

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

SCRIPSMA, 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

SLOSBERG, KENNETH

Professor, Photography
1974-06

SMITH, DOUGLAS C.

Professor, English
1966-98

SMITH, EDITH G.

Professor, Music
1971-98

SMITH, ROBERT B.

Professor, Psychology
1971-04

SNOW, ROSLYN

Professor, English
1962-98

STEPHENS, ROY L.

Professor, Aviation and Space
1976-94

STONEKING, JOYCE

Professor, Business Education
1978-04

SUZUKI, LORI L.

Professor, History
1989-09

TARLOS, THERESA

Associate Professor, Geography
1999-09

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

VARGA, JOHN L.

Professor, Accounting
1976-08

YATES, RONALD L.

Instructor, Computer Information Systems
1985-09

VISCO, FRANK J.

Professor, Biology
1968-04

VISINTAINER, LINDA L.

*Associate Professor, Radiologic
Technology*
1991-03

WALL, THEODORE E. (1969)

Professor, Philosophy

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

WESTERMAN, DONNA

Professor, Art
1976-07

WETZEL, ROBERT C.

Professor, Physical Education & Athletics
1964-95

WHITMORE, LYNN A.

Professor, English
1992-04

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

WORKMAN, WILLIAM

Professor, Physical Education and Athletics;
Head Football Coach
1986-00

WYLIE, JAMES

Professor, Chemistry
1953-85

YOST, BETTY

Professor, Biology
1976-90

ZIMMERMANN, JAY

Professor, English/ Education
1965-03

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