



ORANGE  
COAST  
COLLEGE

CATALOG  
2012-2013

Revised 9-28-12

## **Get ready for success ... at OCC!**

“We’ll help you get there” is more than a slogan at Orange Coast College, it’s our personal commitment to you – and to each of our 25,000 students. In fact, we help more students get to the University of California and California State University than nearly any community college in the state.

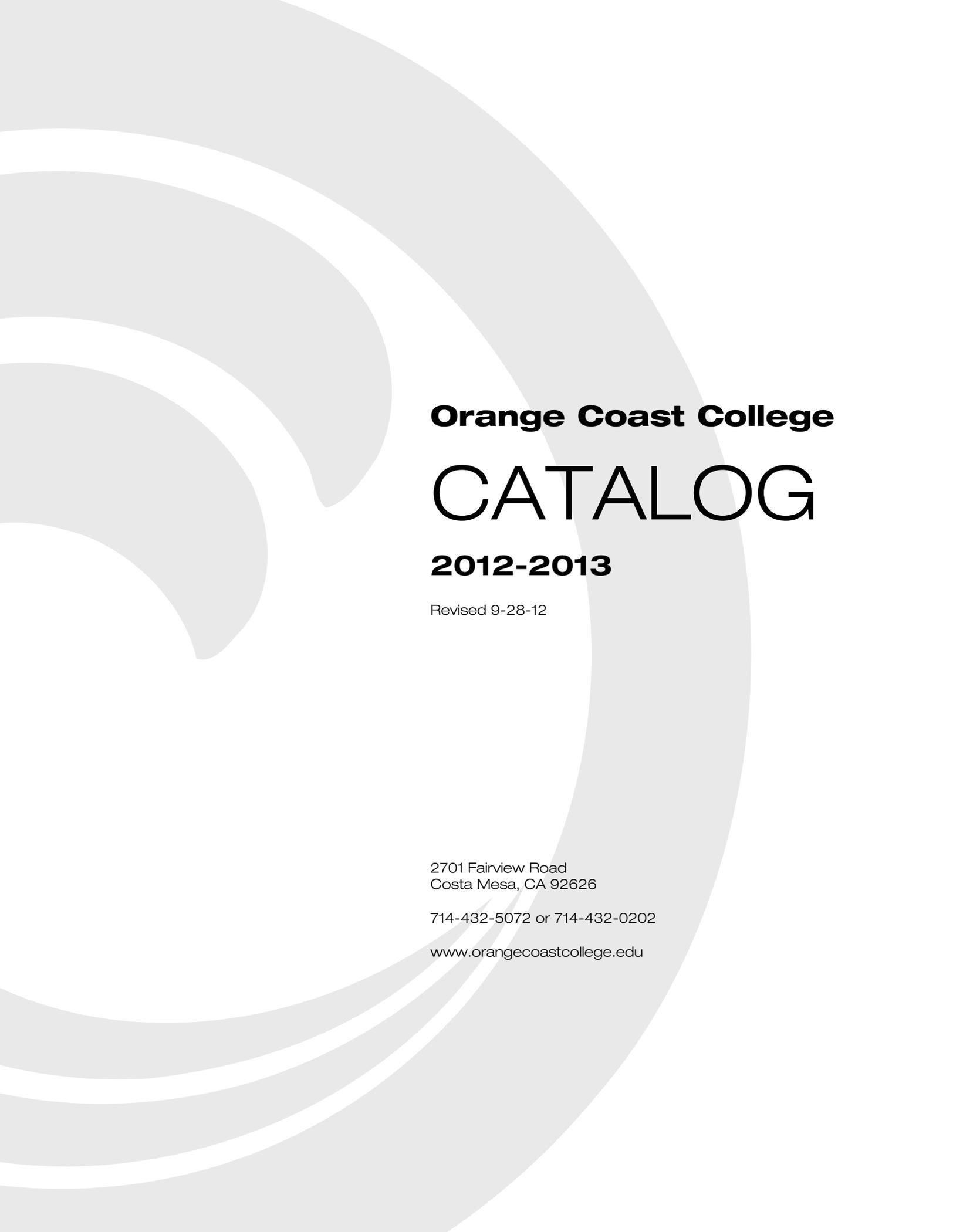
OCC’s expansive 164-acre campus, located in the heart of Orange County, features the latest in modern technology. State-of-the-art facilities include a new library, fitness center, arts pavilion, multimedia studios, sports stadium, science hall and enrollment center.

Our students enjoy big-time amenities in a small college atmosphere. Student services include free tutoring, counseling, health and wellness, and on-campus public safety. Best of all, you’ll find instructors dedicated to helping you every step of the way.

OCC offers AA and AS degrees, and certificates in career programs. Plus, we provide limitless opportunities in student government, clubs, academic groups and athletics.

This catalog will help you get to know OCC, and find programs that are just right for you. Then, visit our website for more information, or call us at (714) 432-5072.

When you’re ready for success, we’ll help you get there.



**Orange Coast College**

# CATALOG

**2012-2013**

Revised 9-28-12

2701 Fairview Road  
Costa Mesa, CA 92626

714-432-5072 or 714-432-0202

[www.orangecoastcollege.edu](http://www.orangecoastcollege.edu)

# OCC Mobile Apps

*Get there  
smart.*

[orangecoastcollege.edu](http://orangecoastcollege.edu)



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Student Trustee

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Chancellor

## Fall 2012 Calendar

|                       |   |
|-----------------------|---|
| August 27 .....       | Semester Begins   |
| September 3.....      | HOLIDAY — Labor Day   |
| September 10.....     | Applications accepted for Spring 2013 Semester, including Winter Intersession |
| October 22 .....      | Beginning of second 8-week classes  |
| November 12.....      | HOLIDAY — Veterans' Day   |
| November 22-25 .....  | HOLIDAY — Thanksgiving  |
| December 16.....      | Last day of Fall Semester   |
| Dec. 17 – Jan. 1..... | Winter Break  |

## Winter 2013 Intersession (If offered)

|                 |                                      |
|-----------------|--------------------------------------|
| January 2.....  | First day of Winter Intersession     |
| January 21..... | HOLIDAY — Martin Luther King Jr. Day |
| January 25..... | Last day of Winter Intersession      |

## Spring 2013 Calendar

|                          |   |
|--------------------------|---|
| January 28.....          | Semester Begins   |
| February 11.....         | Applications accepted for 2013 Summer Session and Fall Semester |
| February 15.....         | HOLIDAY — Lincoln's Birthday                                    |
| February 18.....         | HOLIDAY — Washington's Birthday                                 |
| March 25 – March 31..... | Spring Break  |
| April 1 .....            | Beginning of second 8-week classes                              |
| May 26 .....             | Last day of Spring Semester                                     |
| May 27 .....             | HOLIDAY — Memorial Day  |

All dates and hours of operation 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:

- Student Class Program/Web Schedule Bill (Available via MyOCC)
- Dates to Remember – Available online
- Academic Calendar – Available online
- [www.orangecoastcollege.edu](http://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

To be the standard of excellence in transforming lives through education.

### Mission Statement

Orange Coast College serves the educational needs of its diverse local and global community.

The college empowers students to achieve their educational goals by providing high quality and innovative programs and services leading to academic degrees, college transfer, certificates in career and technical education, basic skills, and workforce development to enable lifelong learning.

The college promotes student learning and development by fostering a respectful, supportive and participatory campus climate of student engagement and academic inquiry.

### Institutional Commitment

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

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

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### About the College

Orange Coast College in Costa Mesa, California, was founded in 1947 on a site 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 is comprised of three public community colleges: Orange Coast College, Golden West College and Coastline Community College. Each is a tax-supported community college.

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### 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.

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### College Programs

#### ***Career and Technical Education Programs***

Orange Coast College offers over 150 Career & Technical Education programs. 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 ongoing 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 brochures to find what Career and Certificate Programs OCC offers. To learn more about career options, please check us out online at [www.orange-coastcollege.edu/careerservices](http://www.orange-coastcollege.edu/careerservices) For more information, phone 714-432-5576 x5.

### **College Transfer Information**

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 information 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.

### **Community Education Programs**

Orange Coast College's Community Education programs provide a variety of lifestyle, recreation, enrichment and professional development opportunities to our community members. All of our Community Education courses are low-cost, fee-based, not-for-credit and not supported by any state or local taxes. Your enrollment fees keep this programming going. For more information about Community Education, please contact 714-432-5154 or visit our website at [www.orangecoastcollege.edu/commed](http://www.orangecoastcollege.edu/commed)

### **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.

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## **Career Services**

Career Services is a multi-faceted department that focuses on preparing students for careers. It encompasses the Career Library Resource Center, Career Programs, Tech Prep Career Pathways/Articulation, the Internship Academy, and the Job Placement Center. The Career Center Career Services is located on the 3rd floor of the Watson Hall building. For more information, visit [www.orangecoastcollege.edu/careerservices](http://www.orangecoastcollege.edu/careerservices)

### **Career Resource Center**

The Career Resource Center offers a variety of materials for students to do research on various aspects of occupational or educational goals. Students can access school catalogs, college major directories, college rankings, career information, job outlook and trends, and many more. There are also career assessments available to help students in making the right decision about their future. The Career Resource Center will help students to pave their own path to success. For more information, phone 714-432-5576 ext. 4 or check us out on-line at: [www.orangecoastcollege.edu/careerservices](http://www.orangecoastcollege.edu/careerservices).

### **Career Pathways/Articulation**

The Career Services Department receives funding from the California Community College's Chancellor's Office through a CTE Transitions Grant and a SB70/SB1133 Career Technical Education Community Collaborative Grant to develop and maintain articulated courses between local high schools and the college; plan sequences of study in Career Technical Education Programs that begin in high school, and extend through at least two years of postsecondary education or an apprenticeship program; and develop and operate Career Pathway Day Events to showcase the college's Career Technical Education Programs to high school students and community members.

This funding is essential in helping to promote a bridge between secondary and postsecondary career technical education programs, providing career pathways, and helping all students make the connection between school and employment. For more information on our career programs, phone 714-432-5576 ext. 5 or check us out on-line at [www.orangecoastcollege.edu/careerservices](http://www.orangecoastcollege.edu/careerservices).

### **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 [www.orangecoastcollege.edu/careerservices](http://www.orangecoastcollege.edu/careerservices).

### **Job Center**

The Job Center 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. Job Center 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 [www.orangecoastcollege.edu/careerservices](http://www.orangecoastcollege.edu/careerservices).

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## **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.

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## **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.

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## 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
- American Association for State and Local History
- American Association of Community Colleges
- American College Health Association (ACHA)
- Association of Community and Continuing Education Membership
- Association of Core Texts and Courses
- California Association of Community College Registrars & Admissions Officers (CACRAO)
- California Community College Council for Staff and Organizational Development
- California Community College Student Affairs Association
- California Community College Student Financial Aid Administrators Association
- Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- Community College Public Relations Organization (CCPRO)
- Joint Review Committee on Education In Diagnostic Medical Sonography (JRC-DMS)
- Journalism Association of Community College
- Learning Resources Network
- NAFFSA: Association of International Educators
- National Association of Student Financial Aid Administrators (NASFAA)
- National Collegiate Honors Council
- National Council for Marketing and Public Relations (NCMPR)
- South Coast Higher Education Council (SCHEC)
- Transfer Center Directors Association

- Trash for Teaching (T4T)
- U.S. Green Building Council – Orange County Chapter
- UMOJA Community Foundation for California Community Colleges
- Western Association of College Admission Counseling (WACAC)
- Western Association of Veteran Education Specialists

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## 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 (EOPS) 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.

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### **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.

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### **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.

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### **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.

## 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](http://www.orangecoastcollege.edu) and in the Associated Students Office.

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### Consumer Information

In accordance with federal regulations set forth by The Higher Education Act of 1965, as amended, below is a summary of consumer information that must be made available to all students at Orange Coast College (OCC). Each topic listed gives a brief description of the information that must be disclosed and explains how it can be obtained. The information is listed throughout the Catalog or it can be found on the OCC website at [orangecoastcollege.edu](http://orangecoastcollege.edu) under Student Services. If you need assistance obtaining information listed or you would like a paper copy, contact the Financial Aid Office.

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### Adapted Kinesiology Program

Adapted Kinesiology 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 10) and complete a necessary medical verification form prior to participation. For more information, phone 714-432-5528 or email [roconnor@occ.cccd.edu](mailto:roconnor@occ.cccd.edu).

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### 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 pre-

serving 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 [eparker@occ.cccd.edu](mailto:eparker@occ.cccd.edu).

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### 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.

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### 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 campus-

wide 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.

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## Athletics

With several decades of winning tradition, Orange Coast College has been regarded as having one of the top athletic departments among all two-year colleges in the state. In 2010, OCC was awarded the Pepsi/NATYCAA Cup, an honor given to the top community college athletic program in California. This standard has produced one of the highest totals of team and individual state and national championships throughout all California community colleges.

The Pirates field 12 men's athletic teams and 10 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 Southern 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 Western Intercollegiate Rowing Association and the American Collegiate Rowing Association. Other colleges competing in these associations 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, Stanford University, UC Berkeley, University of Washington, Oregon State University, UCLA, USC and Washington State University.

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## OCC Bookstore

714-432-5896

714-432-5928 FAX

Visit [www.orangecoastcollege.bkstr.com](http://www.orangecoastcollege.bkstr.com) for more information of operation and hours.

### Bookstore Hours:

Hours are subject to change during special breaks and summer sessions. Please call the bookstore for details or go to our website: [www.orangecoastcollege.bkstr.com](http://www.orangecoastcollege.bkstr.com)

The OCC Bookstore provides all required textbooks and supplies for students and faculty and also offers general interest books, magazines, greeting cards, gifts, Pirate clothing and general merchandise to accommodate the needs of the campus community.

### Online Ordering:

All textbooks and merchandise are available for online order, pick-up or delivery. Please visit our website 24/7 at: [www.orangecoastcollege.bkstr.com](http://www.orangecoastcollege.bkstr.com)

### Gift Cards:

Gift cards are available at the bookstore in any denomination and can be purchased at the registers for your convenience.

### Computer Software:

Over 6,000 software titles are available on our website: [www.orangecoastcollege.bkstr.com](http://www.orangecoastcollege.bkstr.com) and are educationally discounted up to 80%.

### Returns:

You must present your receipt for any exchange or refund.

A full refund will be given on textbooks within one week of the first day of classes. After that a two day return policy is in place. Textbooks are not returnable after the tenth week of classes.

Do not write in or soil your book if you plan to exchange it. We reserve the right to pass judgment on condition of returned items. Defective new books will be replaced immediately.

### Buyback of Textbooks:

Buyback of textbooks is done throughout the year. If the bookstore has a current order from a faculty member for texts needed for the upcoming semester, fifty percent (50%) of the purchase price will be paid for books in resalable condition. National market value

is offered for books that are not needed by the bookstore but which are current at other schools.

### Rent-A-Text:

Some textbooks are available to rent at a discount of up to fifty five percent (55%). You must be 18 years of age or older and provide a telephone number, government identification, email address and a current credit or debit card in order to rent a textbook. The book must be returned to the bookstore at the end of the week of finals or you will be charged for the book plus a handling fee.

### Forms of Payment:

Personal checks are accepted with proper identification and your name and address printed on the check. We also accept: VISA, MASTERCARD, AMERICAN EXPRESS and DISCOVER CARDS.

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## 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.

Check the OCC website for hours of operation. 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.

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## CaWORKS

In cooperation with the Orange County Department of Social Services, the California Work Opportunities and Responsibilities to Kids (CaWORKs) 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 CaWORKs 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](http://www.orangecoastcollege.edu/student_services/eops)

## Counseling Services

Counseling appointments serve the needs of students seeking academic, career and/or personal counseling. Appointments may be made in person at the counseling counter in Watson Hall, on the 3rd floor; by telephone at 714-432-5078, or by accessing our website at [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu); click on Student Services, click on Counseling, click on Make Appointment. For further counseling information call 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 as well as offering assistance in the

four-year campus application process. 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 80 colleges and universities from both California and out-of-state colleges and universities. 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 academic 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. Check the OCC website for hours of operation. Phone 714-432-5807 or 714-432-5604 (TDD) or email us at [DisabledStudents@occ.cccd.edu](mailto:DisabledStudents@occ.cccd.edu).

## 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 hardware and software that can be combined to accommodate and assist students with their schoolwork and educational goals.

Software packages include word processing, spreadsheets, graphic design and adapted software.

## 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, 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](http://www.orangecoastcollege.edu/student_services/eops)

## Student Financial Aid

Student financial aid is funded from multiple sources – federal and state governments, federal loans, public and privately sponsored scholarships, and college specific programs funded by the college’s own institutional resources. Provided below are the student financial aid programs available through the Orange Coast College Financial Aid Office.

### Federal Aid

#### Federal Work Study

Federal Work Study Program (FWS) (Money which the student earns)

#### Grants

(Money awarded that is not repaid)

- The Federal Pell Grant
- The Supplemental Educational Opportunity Grant (SEOG) – must apply before March 2
- Teacher Education Assistance for College and Higher Education (TEACH) Grant

#### Loans

(Money which the student must repay)

- Perkins Loan Program – legislative actions may change this program. Please check with the Financial Aid Office. Must apply before March 2
- William D. Ford Federal Direct Loan Program Jobs (Money which the student must earn)

## State of California Programs

- Cal Grant – California legislative budget processes may impact this program. Please check with the Financial Aid Office
- Board of Governors Fee Waiver (BOGFV) The unit enrollment fee is waived. The student is responsible for the college service charge, material fees, parking permits, health fee and any other fees associated with a course.
- Chafee Grant – Foster youth.

Student financial aid is provided to assist students 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 that cost. All student financial aid information and award notifications are sent to the student’s Orange Coast College email address. For more information, please use our online resources at [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu)

## Housing

The International Center is responsible for housing information and services and seeks to provide the widest range of housing options for all students. All students have access to an online housing board, on which students and the community may advertise their housing needs. Advertising on the housing list is free of charge and the listing can be viewed on the OCC website by visiting the quick links on the Prospective Student section of the Orange Coast College’s website.

The Homestay Program is another housing option for international students. The International Center can provide information on entities that offer Homestay Program. 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 enrolled in regular classes, as well as basic skill 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 over 100,000 books, periodicals, videos, and audiocassettes, the Orange Coast College Library supports and enriches the quality of the educational program. Check the library website for hours of operation. The library is closed all school holidays. Remote access to the library’s online catalog and full-text databases is available through the library website.

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 two-unit class (LIB A100, Introduction to Library Resources) designed to develop research skills.

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## Lost and Found

Lost and Found is located in the ASOCC Office. Check the OCC website for hours of operation. Hours are subject to change. The ASOCC Office can be reached by calling 714-432-5730.

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## 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. Check the OCC website for hours of operation. Profits from the center go to scholarships for OCC students.

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## Scholarships

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

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

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## Student Health Center

The Orange Coast College Student Health Center is open to all OCC students, regardless of whether they have health insurance. The Student Health Center is financed by the health fee that all students pay each semester; it receives no other college or state funding. Students must be enrolled in the current semester in order to use the Student Health Center.

The Student Health Center is located off Fairview Road and Pirate Way, between the gym and Watson Hall. Check the OCC website for hours of operation. Summer and Winter Session hours will be announced and posted prior to the beginning of those sessions.

Students may schedule appointments to be seen at the health center by calling 714-432-5808. Every effort will be made to care for injuries and emergencies promptly. Most of the forms needed in the Student Health Center are available on the Student Health Center website ([www.orangecoastcollege.edu/student\\_services/student\\_health](http://www.orangecoastcollege.edu/student_services/student_health)). The many services the Student Health Center offers include medical and mental health appointments, as well as family planning services. The Student Health Center does not provide primary care services for ongoing medical problems, such as chronic illnesses. The Pirate Referral Program (PRoP), located in the Student Health Center, assists students in crisis or with more complex problems to access the assistance they need in our local community.

If a student is injured on campus or in the course of a college-sponsored activity, the Student Health Center staff will assist the student to access the Coast Community College accident insurance policy.

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## Student Center Lounge

Check the OCC website for hours of operation. 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.

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## Student Success Center

The Student Success Center offers free tutoring to OCC students in most subject areas and consists of the Math Center, Writing/Reading Center, General Tutoring area and the PASS program. Services include scheduled appointments, drop-in tutoring, study groups, workshops and Peer Assisted Study Sessions (PASS program). All tutors are recommended by OCC instructors and required to complete a training course.

For more information, call 714-432-5559 or visit our website at: [www.orangecoastcollege.edu/student\\_services/student\\_success\\_center](http://www.orangecoastcollege.edu/student_services/student_success_center). The Student Success Center is located in C&L 103.

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## 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](http://www.rehab.cahwnet.gov).

## Policies & 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 Freedom

Orange Coast College recognizes that the search for truth and free expression of ideas are essential to a democratic society and affirms the following as principles of academic freedom: (a) Academic freedom is the right of the faculty to express or discuss challenging issues, ideas, and theories with other faculty, administrators, staff members, and students; (b) Academic freedom entails a responsibility for using good professional judgment when engaging in intellectual discussions at the College; (c) Academic freedom guarantees rights to the faculty to create and use instructional materials that may be thought-provoking or even controversial, as long as their use is within the scope of commonly recognized standards of teaching and scholarship, professional conduct, and applicable policies and laws; (d) Faculty members recognize that rights entail duties and acknowledge their responsibility as educators to exercise self-discipline and sound judgment in the use of educational issues and materials, and demonstrate both intellectual honesty and a devotion to seeking the truth.

### 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 Board Policy 3902 shall be applied to incidents of academic dishonesty.

### 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 CCCD 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 Student Services 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

### 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.

### Student Responsibility & Campus Communication

OCC makes every effort to communicate important information in a timely manner. In an effort to minimize costs, OCC utilizes the Coast Community College District issued student email and targeted announcements posted in students' MyOCC portals as the official means of communication. Students are expected to check their MyOCC and student email account on a regular basis for important information about registration, grades, holds, and deadlines. Students are responsible for being aware of State mandated and college deadlines and should verify all transactions.

### 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.

### 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.

### Equal Opportunity Policy

Orange Coast College is committed to providing equal opportunities in its educational programs and activities. Therefore, neither an Orange Coast College student nor a Coast Community College District employee, nor any applicant for enrollment or employment, shall be unlawfully denied the benefits of, or be unlawfully subject to, discrimination on the basis of

race, color, sex, gender identity, religion, age, national origin, ancestry, sexual orientation, marital status, physical or mental disability, and/or veteran status. Inquiries about the District's Equal Opportunity Policy should be directed to the Director of Personnel Services at 714-432-5670 in Administration, or the District Office of Human Resources.

Inquiries regarding compliance and/or grievance procedures may be directed to the Title IX Officer and/or the Section 504/ADA Coordinator.

#### Title IX Officer

Vice President, Student Services  
Administration Building  
Phone: 714-432-5897

#### Section 504/ADA Coordinator

Supervisor, Disabled Students Programs and Services  
Special Services Building  
Phone: 714-432-5042

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## 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

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## Grade Grievance

Recognizing that trusting, positive relationship between students and instructors is vital to successful learning and teaching, the Grade Grievance procedure 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. The Grade Grievance process does not address personality, character, or styles of teaching; this process takes into account only the grading concern of the student to determine if the California Code of Education was violated.

The final grade that is assigned to a student is the purview of the course instructor who teaches the course. The California Code of Regulations, Title 5, Section 55025. 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 this article. The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetency.*"

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. However, appeals will not be accepted only through the end of the sixth week of the semester in which the grade was received. For more information, visit the OCC website or contact the Grade Grievance officer at 714-432-5940.

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## Illegal Distribution of Copyrighted Materials

OCC supports the Higher Education Opportunity Act and Digital Millennium Copyright Act, including efforts to eliminate the illegal distribution of copyrighted material.

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## 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.

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## 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 student class program web schedule bill (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
- 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 student class program (web schedule bill), 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.

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## Non-Discrimination Policy

The District is committed to the concept and principles of providing equal opportunity in education and employment for all persons, and does not discriminate unlawfully in providing educational or employment opportunities to any person on the basis of race, color, sex, gender identity, gender expression, religion, age, national origin, ancestry, sexual orientation, marital status, medical condition, physical or

mental disability, military or veteran status, or genetic information. This commitment applies to every aspect of education and personnel actions and practices in employment, development, advancement, and treatment of employees, students and the general public.

## Declaración de no discriminación

El Distrito honra su compromiso para con el concepto y los principios de la igualdad de oportunidades de educación y empleo para todas las personas, y no discrimina ilegalmente a ninguna persona, en la prestación de oportunidades de educación o empleo, sobre la base de raza, color, género, identidad de género, expresión de género, religión, edad, origen nacional, ascendencia, orientación sexual, estado civil, afección médica, discapacidad física o mental, calidad de militar o veterano de guerra, o información genética. Este compromiso se aplica a todos los aspectos de las decisiones y prácticas de educación y gestión del personal en el empleo, así como en el desarrollo, avance y trato de los empleados, los estudiantes y el público en general.

## Chình Sàch Bất Kỳ Thị

Cơ Quan cam kết theo đúng quan điểm và nguyên tắc tạo cơ hội bình đẳng trong giáo dục và việc làm cho tất cả mọi người, và không phân biệt đối xử bất hợp pháp trong việc cung cấp các cơ hội giáo dục và việc làm cho bất kỳ ai vì lý do sắc tộc, màu da, phái tính, đặc điểm giới tính, thể hiện giới tính, tôn giáo, tuổi, quốc gia nơi xuất thân, nguồn gốc tổ tiên, xu hướng tính dục, tình trạng hôn nhân, bệnh tật, khuyết tật về thể chất hoặc tinh thần, tình trạng quân ngũ hoặc cựu chiến binh, hoặc thông tin di truyền. Cam kết này áp dụng cho mọi hành động và cách thức hành động liên quan tới giáo dục và nhân sự trong việc làm, phát triển, thăng tiến, và đối xử với các nhân viên, học sinh và công chúng.

## 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 identified, applicable 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. If, after contacting the appropriate supervisor or administrator, you are not satisfied with the outcome you may file a Complaint Form. Service complaints escalating to this level should be submitted in writing (a Complaint Form is available via the OCC website) so that the appropriate administrator can investigate your complaint and respond.

Most complaints, grievances or disciplinary matters should be resolved at the campus level. This is the quickest and most successful way of resolving issues involving a California Community College (CCC). You are encouraged to work through the campus complaint process first before escalating issues to any of the following resources. Issues that are not resolved at the campus level may be presented:

- To the Accrediting Commission for Community and Junior Colleges (ACCJC) at [www.accjc.org/complaint-process](http://www.accjc.org/complaint-process) if your complaint is associated with the institution's compliance with academic program quality and accrediting standards. ACCJC is the agency that accredits the academic programs of the California Community Colleges.
- To the CCC Chancellor's Office by completing a web form if your complaint does not concern CCC's compliance with academic program quality and accrediting standards.
- If your complaint involves unlawful discrimination, to the Chancellor's Office website at [www.cccco.edu/ChancellorsOffice/Divisions/Legal/Discrimination/tabid/294/Default.aspx](http://www.cccco.edu/ChancellorsOffice/Divisions/Legal/Discrimination/tabid/294/Default.aspx)

For more information, please visit the California Community College State Chancellor's Office Complaint Form site at: [www.californiacommunitycolleges.cccco.edu/ComplaintsForm.aspx](http://www.californiacommunitycolleges.cccco.edu/ComplaintsForm.aspx)

## 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 Student 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 Student Services and online at [www.orangecoastcollege.edu/student\\_services/student\\_life/deanofstudents/](http://www.orangecoastcollege.edu/student_services/student_life/deanofstudents/)

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## Sexual Harassment

Sexual harassment is offensive, unwelcome sexual attention. It may be pressure for dates or sexual favors, suggestive gestures or remarks, touching, or even actual or attempted rape or assault. Sexual harassment is a form of sex discrimination which violates Title VII of the Federal Civil Rights Act of 1964 as amended; Title IX of the Education Amendments of 1972; California state law; and the Coast Community College District Board policies.

If you feel you are being sexually harassed and would like clarification, an informational brochure on the options available to you, or if you would like to discuss your concern with an Administrator, please contact the Associate Dean of Health Services at 714-432-5026 or the Director of Personnel at 714-432-5670.

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## 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 & 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 [orangecoastcollege.edu](http://orangecoastcollege.edu)

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, Early Start Petition (ESP form), signed by the parent and principal or designee of their school, recommending the specific course or courses. Some courses are not offered to high school students. Visit the OCC website for more information (admissions).

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 21.)

### Application

An application for admission is required for all students. Application forms may be accessed through the OCC web site at [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu). International students should contact the International 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.

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## Matriculation

Matriculation is a partnership between students and the college. The program is designed to assist students in planning, choosing, and achieving their educational 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.

All students, unless exempt, must complete the Matriculation process. Registration will be delayed if students have not met the requirements. Questions regarding the process may be directed to the Matriculation Office located on the first floor of Watson Hall.

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## 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. Such recommendations are 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.

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## 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 30 days prior to their assigned registration date to ensure processing and clearance before their assigned registration appointment.

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. Grades of "C-" do not meet the "C" grade or better requirement as defined for this purpose.

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.

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## 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 prerequisite 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 place the student in the appropriate ESL or English courses.

Please 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.

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## Admission to School of Allied Health Professions

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

- Training in any health care program 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.

## Allied Health General Program Requirements

The following programs require Allied Health A010 prerequisite:

- Cardiovascular Technology. Electrocardiology and Echocardiology
- Dental Assisting – Registered
- Diagnostic Medical Sonography
- Dietetic Technician
- Medical Assisting-CMA Eligible
- Neurodiagnostic Technology
- Polysomnographic Technology
- Radiology Technology
- Respiratory Care
- Speech Language Pathology Assistant

Allied Health A010 is optional for the following Program

- Emergency Medical Services

## Admission

Taking Allied Health A010 is the optimal method to determine career choice and required to apply 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 is based on a first come, first serve basis and the priority criteria for acceptance is listed below in order of ranking:

The date of application to the program through Allied Health A010 and The dates of successful completion of specific program prerequisites and applicable General Education requirements.

More specific information concerning the admission procedure can be found on the Allied Health web site at: [www.orangecoastcollege.edu/NR/rdonlyres/016EDD6A-2F4E-4322-8D02-776B955CBD5A/15569/SAHPSTUDENTMANUAL20120312FINAL.pdf](http://www.orangecoastcollege.edu/NR/rdonlyres/016EDD6A-2F4E-4322-8D02-776B955CBD5A/15569/SAHPSTUDENTMANUAL20120312FINAL.pdf) (page 6-9) or by following the links: Divisions and Departments/Consumer & Health Sciences/Allied Health/Manuals and Forms.

## 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 for employment

- All programs but DA, MA, NC/DT and SLPA require completion of the General Education requirements for the Associate in Science degree before admission. See college catalog for specific General Education requirements for the Associate in Science Degree.

## Course Recency for Programs that Require the Following Prerequisites

**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.

**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 have been 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.

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.

## Clinical

- Admission into the clinical phase of a program requires that 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 and drug screen are required
- Students must adhere to a specific dress code and wear picture identification badges
- Students must have reliable transportation to off-campus clinical sites

More specific information concerning the clinical procedures can be found on the Allied Health web site at: [www.orangecoastcollege.edu/NR/rdonlyres/016EDD6A-2F4E-4322-8D02-776B955CBD5A/15569/SAHPSTUDENTMANUAL20120312FINAL.pdf](http://www.orangecoastcollege.edu/NR/rdonlyres/016EDD6A-2F4E-4322-8D02-776B955CBD5A/15569/SAHPSTUDENTMANUAL20120312FINAL.pdf) (page 14 and 22-32) or by following the links: Divisions and Departments/Consumer & Health Sciences/Allied Health/Manuals and Forms.

## Termination of Program and Procedure for Readmission

Any break in enrollment due to either of the items listed below, will cause a termination in the program.

1. Voluntary withdrawal due to extenuating circumstances, defined as personal/family health issues, personal/family financial issues, or family related issues preventing the student from continuing (NOTE: Grades are not considered as extenuating circumstances) or
2. Non-passing grades (D, F, or NC) and/or unsafe practices or other substandard performance in clinical experiences.

A student who terminates as indicated above, and who subsequently desires readmission to the program, will need to follow the Procedures for Readmission as specified on the Allied Health web site at: [www.orangecoastcollege.edu/NR/rdonlyres/016EDD6A-2F4E-4322-8D02-776B955CBD5A/15569/SAHPSTUDENTMANUAL20120312FINAL.pdf](http://www.orangecoastcollege.edu/NR/rdonlyres/016EDD6A-2F4E-4322-8D02-776B955CBD5A/15569/SAHPSTUDENTMANUAL20120312FINAL.pdf) (page 42-43) or by following the links: Divisions and Departments/Consumer & Health Sciences/Allied Health/Manuals and Forms.

## OCC Fees

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

- Enrollment fee of \$46 per unit (at time of publication) for students meeting California residency requirements.
- \$30 parking permit
- \$19 health service fee
- \$21 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 at any time including current and future terms.

\* 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 ASOCC Office prior to registration 714-432-5730.

Students not meeting **California residency requirements** are required to pay a per unit non-resident fee of \$179 per unit and a Capital Outlay fee of \$35 per unit in addition to the Resident fee of \$46 per unit. 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 the student is enrolled. 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.

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## Refund Policy

In Accordance with California State Regulations and Coast District Policy, registration fees will be refunded according to the following:

### **Enrollment Fees, Non-Resident Fees, Material Fees:**

100% refund of fees paid at registration for each class dropped by the refund deadline. No refund will be made after the refund deadline. There are no exceptions.

### **Health Fee, College Service Charge:**

100% of the fees paid at registration will be refunded if the student totally withdraws from all classes by the refund deadline for each class. No refund will be made after the refund deadline. There are no exceptions.

### **Parking Permit:**

Return the parking permit (If purchased) in-person or by mail. The Parking Permit must be postmarked or returned to the Enrollment Center (Registration Office) on or before the earliest refund deadline on your official Student Class Program, which is available via the student tab on your MyOCC portal.

### **To Be Eligible For a Refund:**

Students must officially withdraw from classes by the refund deadline (Refer to the Student Class Program/ Web Schedule Bill on the Student tab of the MyOCC portal page or see Dates to Remember.) It is the student's responsibility to officially withdraw from classes and to verify all withdrawals. An instructor may drop students for non-attendance. Instructors are not responsible for making sure drops are made by the refund deadline. If the student has not been dropped from the class by the instructor, the student is responsible for withdrawing from the class by the refund deadline. Students who are officially enrolled in a class after the refund deadline will not be eligible for a refund. There are no exceptions.

### **Refund Processing:**

Refunds will be automatically processed every Wednesday beginning the first week of registration of the semester in which the fees were paid and each week thereafter until the end of the term. Official withdrawals made in accordance with the refund policy and by the withdrawal deadline will generate a credit balance on the student account.

### **Online Credit Card Payment Refunds:**

Registration fee payments made by credit card through MyOCC will be refunded to the same credit card used for payment. Allow 6-10 business days for the refund to post. If the Credit Card used to pay fees is no longer valid, it is the student's responsibility to notify the Enrollment Center once the credit has been posted to the student's account and prior to the refund being processed. The refund will be converted to a check refund upon proper notification.

### **On Campus Payment Refunds:**

Fee payments posted on campus, by cash, check, money order or credit card, will be refunded by check and mailed to the mailing address the Enrollment Center has on file. It is the responsibility of the student to maintain correct and up-to-date address information. Addresses can be updated on MyOCC, under the Student Tab, and then click on Banner Self Service.

### **Important:**

Payments made using multiple payment methods (online credit card payments and cash, check or money order) during the current registration period will be refunded to the credit card used for online payments.

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## 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 a Residency clerk at OCC Enrollment Center.

## 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) Students under certain Visa classifications may not be eligible for this exemption. Please see the Residency Office for more information.

## 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.

Interested international students can 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@occc.edu](mailto:intctr@occc.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](http://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 minimum score of 500 (paper-based) or 61 (internet-based) on the Test of English as a Foreign Language (TOEFL), or a minimum score of 5.5 on the IELTS, or the EIKEN STEP Pre-First Grade level, or a minimum score of 5 on iTEP Test. 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: [www.orangecoastcollege.edu/prospective\\_student/international\\_students](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 or specifics regarding admission and submission of documents, refer to the International Student application packet or contact the International Center by telephone at 714-432-5940 or via e-mail at [intctr@occc.edu](mailto:intctr@occc.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 indicating honorable discharge. 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.

Under Title 5, Section 55024, members of the service called to active duty during a semester in which they are enrolled, may petition to withdraw under special circumstances. The withdrawal will be posted as "MW" - Military Withdrawal on the student's transcript and will be non-punitive, which means that it will not count in the student's grade point average nor will it count towards academic or progress probation/disqualification. Students with orders to report during a semester in which they are enrolled should contact the Enrollment Center for the petition form.

## 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 \$5.

## Study Load

The average student carries a 15 unit full academic load during a semester at Orange Coast College. 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).

## Student Classifications

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)

## Enrollment Status for Reporting Purposes:

### Full-time—

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

### Half-time:

A student carrying 6 to 11.99 units. (for Summer session, 3 to 5.99 units)

### Less Than Half-time

A student carrying .5 to 5.99 units. (for Summer session, .5 to 2.99 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." Transfer-ability 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, Financial Aid eligibility 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 materi-

als 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 require-

ments at OCC under General Education Option 1 or Option 2 and AS GE. CLEP credit maybe used to certify general education requirements for transfer to the CSU only. The University of California does not grant credit for CLEP exams. CLEP scores must be submitted for evaluation directly to the college or university where the student requests credit. CLEP policies for each private or out of state four-year college maybe 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:

| CLEP EXAM                           | OCC Passing Score | OCC AA/AS GE Area   | OCC Units Towards AA/AS GE | CSU Passing Score | MIN. CSU Units Earned | Units Towards CSU GE Breadth | American Institutions and/or GE Breadth Area |
|-------------------------------------|-------------------|---------------------|----------------------------|-------------------|-----------------------|------------------------------|--|
| AMERICAN GOVT.                      | 50                | D1/D                | 3                          | 50                | 3                     | 3                            | D8   |
| AMERICAN LITERATURE                 | 50                | C1/C2               | 3                          | 50                | 3                     | 3                            | C2   |
| ANALYZING & INTERPRETING LITERATURE | 50                | C1/C2               | 3                          | 50                | 3                     | 3                            | C2   |
| BIOLOGY                             | 50                | B                   | 3                          | 50                | 3                     | 3                            | B2   |
| CALCULUS                            | 50                | A2                  | 3                          | 50                | 3                     | 3                            | B4   |
| CHEMISTRY                           | 50                | B                   | 3                          | 50                | 3                     | 3                            | B1   |
| COLLEGE ALGEBRA                     | 50                | A2                  | 3                          | 50                | 3                     | 3                            | B4   |
| COLLEGE ALGEBRA-TRIG                | 50                | A2                  | 3                          | 50                | 3                     | 3                            | B4   |
| COLLEGE MATHEMATICS                 | 50                | Not accepted at OCC | 0                          | 50                | 0                     | 0                            | Not accepted at OCC                          |
| ENGLISH COMP (NO ESSAY)             | 50                | Not accepted at OCC | 0                          | 50                | 0                     | 0                            | Not accepted at OCC                          |
| ENGLISH COMP (WITH ESSAY)           | 50                | Not accepted at OCC | 0                          | 50                | 0                     | 0                            | Not accepted at OCC                          |
| ENGLISH LITERATURE                  | 50                | C1/C2               | 3                          | 50                | 3                     | 3                            | C2   |
| FINANCIAL ACCOUNTING                | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| FRENCH LEVEL I*                     | 50                | Not accepted at OCC | 0                          | 50                | 6                     | 0                            | Not accepted at OCC                          |
| FRENCH LEVEL II**                   | 50                | C1/C2               | 3                          | 59                | 12                    | 3                            | C2   |
| FRESHMAN COLLEGE COMP               | 50                | Not accepted at OCC | 0                          | 50                | 0                     | 0                            | Not accepted at OCC                          |
| GERMAN LEVEL I*                     | 50                | Not accepted at OCC | 0                          | 50                | 6                     | 0                            | Not accepted at OCC                          |
| GERMAN LEVEL II**                   | 50                | C1/C2               | 3                          | 60                | 12                    | 3                            | C2   |
| HISTORY, US I                       | 50                | D1/D                | 3                          | 50                | 3                     | 3                            | D6+US-1                                      |
| HISTORY, US II                      | 50                | D1/D                | 3                          | 50                | 3                     | 3                            | D6+US-1                                      |
| HUMAN GROWTH AND DEV                | 50                | D                   | 3                          | 50                | 3                     | 3                            | E  |
| HUMANITIES                          | 50                | C1/C2               | 3                          | 50                | 3                     | 3                            | C2   |
| INFO SYS & COMP. APPS               | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| INTRO EDU PSYCHOLOGY                | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| INTRO BUS. LAW                      | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| INTRO PSYCHOLOGY                    | 50                | D3/D                | 3                          | 50                | 3                     | 3                            | D9   |
| INTRO SOCIOLOGY                     | 50                | D2/D                | 3                          | 50                | 3                     | 3                            | D0   |
| NATURAL SCIENCES                    | 50                | B1                  | 3                          | 50                | 3                     | 3                            | B1 or B2                                     |
| PRE-CALCULAS                        | 50                | A2                  | 3                          | 50                | 3                     | 3                            | B4   |
| PRIN OF ACCOUNTING                  | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| PRIN OF MACROECONOMICS              | 50                | D2/D                | 3                          | 50                | 3                     | 3                            | D2   |
| PRIN OF MANAGEMENT                  | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| PRIN OF MARKETING                   | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| PRIN OF MICROECONOMICS              | 50                | D2/D                | 3                          | 50                | 3                     | 3                            | D2   |
| SOCIAL SCIENCE & HISTORY            | 50                | Not accepted at OCC | 0                          | 50                | 3                     | 0                            | Not accepted at OCC                          |
| SPANISH LEVEL I*                    | 50                | Not accepted at OCC | 0                          | 50                | 6                     | 0                            | Not accepted at OCC                          |
| SPANISH LEVEL II*                   | 50                | C1/C2               | 3                          | 63                | 12                    | 3                            | C2   |
| TRIGONOMETRY                        | 50                | A2                  | 3                          | 50                | 3                     | 3                            | B4   |
| WESTERN CIVILIZATION I              | 50                | D2/D                | 3                          | 50                | 3                     | 3                            | C2 or D6                                     |
| WESTERN CIVILIZATION II             | 50                | D2/D                | 3                          | 50                | 3                     | 3                            | D6   |

Note: \*If a student passes more than one CLEP test in the same language other than English (e.g., two exams in French), then only one examination may be applied

to the baccalaureate. For each test in a language other than English, a passing score of 50 is considered “Level I” and earns six units of baccalaureate credit; the higher score listed for each test is considered “Level II” and earns additional units of credit and placement in Area C2 of General Education Breadth, as noted.

**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 or General Education area credits granted for Advanced Placement Examinations can be used to meet OCC general education requirements for an A.A. and A.S. 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. AP exams must be used in an area indicated regardless of where the certifying California Community College’s discipline is located.
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.

# Orange Coast College

The #1 Combined Transfer  
School in California...again

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:

## ADVANCED PLACEMENT CREDIT

Students can earn AP credit with a minimum score of 3 unless otherwise indicated

| AP Examination                            | OCC AA / AS (Subject Credit and / or GE), , , Units & Area     | CSU GE Area for Certification                | Total CSU Semester Transfer Units | IGETC Area for Certification     | Total UC Semester Transfer Units              |
|---|--|--|-----------------------------------|----------------------------------|---|
| Art History                               | Art A100 & A101 / 6 units / Area C                             | C1 or C2, 3 sem. units                       | 6                                 | 3A or 3B, 3 sem. units           | 5.3   |
| Biology                                   | Biol A100 / 4 units / Area B                                   | B2 & B3, 4 sem. units                        | 6                                 | 5B with Lab, 4 sem. units        | 5.3   |
| Calculus AB *                             | Math A180 / 4 units / Area A2                                  | B4, 3 sem. units                             | 3                                 | 2A, 3 sem. units                 | 2.7*  |
| Calculus BC *                             | Math A180 / 4 units / Area A2                                  | B4, 3 sem. units                             | 6                                 | 2A, 3 sem. units                 | 5.3*  |
| AP Calculus Exam Limitations *            | *score 5 for A180 + A185 / 8 units max                         |  |                                   |                                  | *5.3 sem. units for both                      |
| Chemistry                                 | Chem A110 / 5 units / Area B                                   | B1 & B3, 4 sem. units                        | 6                                 | 5A with Lab, 4 sem. units        | 5.3   |
| Chinese Language & Cultures               | N/A / N/A / Area C   | C2,, 3 sem. units                            | 6                                 | 3B & 6A, 3 sem. units            | 5.3   |
| Computer Science: A                       | N/A / N/A / N/A  | N/A  | 3*                                | N/A                              | 1.3*  |
| Computer Science : AB                     | N/A / N/A / N/A  | N/A  | 6*                                | N/A                              | 2.7*  |
| AP CS Exam Limitations*                   |  |  | * Max 1 exam toward transfer      |                                  | 2.7 sem units for both AB always supersedes A |
| English Language & Composition            | Engl A100 / 3 units / Area A1                                  | A2, 3 sem. units                             | 6                                 | 1A, 3 sem. Units                 | 5.3*  |
| English Literature                        | Engl A100 / 6 units / Area A1 & C1 (AA) / C2 (AS)              | A2 & C2, 6 sem. units                        | 6                                 | 1A or 3B *, 3 sem. units         | 5.3*  |
| AP English Exam Limitations*              |  |  |                                   |                                  | *Max. 8 quart./5.3 sem. units for both        |
| Environmental Science                     | N/A / 4 units / Area B   | B2 & B3*, 4 sem. units                       | 4                                 | 5A with Lab, 3 sem. units        | 2.7   |
| AP Environmental Science Exam Limitation* |  | *If taken prior to Fall '09                  |                                   |                                  |   |
| European History                          | Hist A180 & A185 / 6 units / Area C1 or D2 (AA) / C2 or D (AS) | C2 or D6, 3 sem. units                       | 6                                 | 3B or 4F, 3 sem. units           | 5.3   |
| French Language                           | Fren A185 / 5 units / Area C1 (AA) / C2 (AS)                   | C2, , 3 sem. units                           | 6                                 | 3B & 6A, 3 sem. units            | 5.3   |
| French Literature                         | N/A / 3 units / Area C1 (AA) / C2 (AS)                         | C2*, 3 sem. units                            | 6                                 | 3B & 6A, 3 sem. units            | 5.3   |
| AP French Literature Exam Limitations*    |  | *If taken prior to Fall '09                  |                                   |                                  |   |
| German Language                           | German A185 / 5 units / Area C1 (AA) / C2 (AS)                 | C2,, 3 sem. units                            | 6                                 | 3B & 6A, 3 sem. units            | 5.3   |
| Government & Politics: Comparative        | PSCI A185 / 3 units / Area D1 (AA) / D (AS)                    | D8,, 3 sem. units                            | 3                                 | 4H, 3 sem. units                 | 2.7   |
| Government & Politics: United States      | 3 units / Area D1 (AA) / D (AS)                                | D8 + US-2*, 3 sem. units                     | 3                                 | 4H, 3 sem. units                 | 2.7   |
| AP Govt. Exam*                            | *Doesn't fulfill Calif. Gov. req                               | *Doesn't fulfill Calif. Gov. req.            |                                   | *Doesn't fulfill Calif. Gov. req |   |
| Human Geography                           | N/A / 3 units / Area D1 (AA) / D (AS)                          | D5, , 3 sem. units                           | 3                                 | 4E, 3 sem. units                 | 2.7   |
| Italian Language and Cultures             | N/A / 5 units / Area C1 (AA) / C2 (AS)                         | C2, , 3 sem. units                           | 6                                 | 3B or 6A, 3 sem. units           | 5.3   |
| Japanese Language and Cultures            | N/A / 5 units / Area C1 (AA) / C2 (AS)                         | C2,, 3 sem. units                            | 6                                 | 3B or 6A, 3 sem. units           | 5.3   |
| Latin Literature                          | N/A / 3 units / Area C1 (AA) / C2 (AS)                         | C2*, 3 sem. units                            | 6                                 | 3B or 6A, 3 sem. units           | 2.7   |
| AP Latin Literature Exam Limitations*     |  | *If taken prior to Fall '09                  |                                   |                                  |   |
| Latin : Vergil                            | N/A / 3 units / Area C1 (AA) / C2 (AS)                         | C2,, 3 sem. units                            | 3                                 | 3B or 6A, 3 sem. Units           | 2.7   |
| Macro Economics*                          | Econ A175 / 3 units / Area D2 (AA) / D (AS)                    | D2,, 3 sem. units                            | 3                                 | 4B, 3 sem. units                 | 2.7   |
| Micro Economics*                          | Econ A170 / 3 units / Area D2 (AA) / D (AS)                    | D2,, 3 sem. units                            | 3                                 | 4B, 3 sem. units                 | 2.7   |
| AP Economics Exam Limitations*            |  |  |                                   |                                  |   |
| Music Theory                              | Mus A115 / 3 units / Area C1                                   | C1*, 3 sem. units                            | 6                                 | N/A                              | 5.3   |
| AP Music Theory Exam Limitations*         |  | *If taken prior to Fall '09                  |                                   |                                  |   |
| Physics B                                 | Phys A110 & A111 / 4 units / Area B                            | B1 & B3*, 4 sem. units                       | 6                                 | 5A with Lab, 4 sem. units        | 5.3 *   |
| Physics C: Mechanics                      | Phys A120 / 4 units / Area B                                   | B1 & B3*, 4 sem. units                       | 4                                 | 5A with Lab, 3 sem. units        | 2.7 *   |
| Physics C: Electricity and Magnetism      | Phys A125 / 4 units / Area B                                   | B1 & B3*, 4 sem. units                       | 4                                 | 5A with Lab, 3 sem. units        | 2.7 *   |
| AP Physics Exam Limitations*              |  | *Max. 4 sem. units for GE and 6 for transfer |                                   |                                  | 5.3 sem. Units for all 3                      |
| Psychology                                | Psyc A100 / 3 units / Area D3 (AA) / D (AS)                    | D9,, 3 sem. units                            | 3                                 | 4I, , 3 sem. units               | 2.7   |
| Spanish Language                          | Span A185 / 5 units / Area C1 (AA) / C2 (AS)                   | C2,, 3 sem. units                            | 6                                 | 3B & 6A, 3 sem. units            | 5.3   |
| Spanish Literature                        | N/A / 3 units / Area C1 (AA) / C2 (AS)                         | C2,, 3 sem. units                            | 6                                 | 3B & 6A, 3 sem. units            | 5.3   |
| Statistics                                | Math A160 / 3 units / Area A2                                  | B4, 3 sem. units                             | 3                                 | 2A, 3 sem. units                 | 2.7   |
| Studio Art: 2D Design                     | Art A110 / 3 units / Area C1                                   | N/A  | 3                                 | N/A                              | 5.3 *   |
| Studio Art: 3D Design                     | N/A / N/A / N/A  | N/A  | N/A                               | N/A                              | 5.3 *   |
| Studio Art: Drawing                       | N/A / N/A / N/A  | N/A  | N/A                               | N/A                              | 5.3 *   |
| AP Studio Art Exam Limitations*           |  |  |                                   |                                  | *Only 5.3 UC Sem. units max. for all 3 exams  |
| United States History                     | Hist A170 & A175 / 6 units / Area D1 (AA) / C2 or D (AS)       | C2 or D6, 3 sem. units                       | 6                                 | 3B or 4F, 3 sem. units           | 5.3   |
| World History                             | Hist A61 & A162 / 6 units / Area D1 (AA) / C2 or D (AS)        | C2 or D6, 3 sem. units                       | 6                                 | 3B or 4F, 3 sem. units           | 5.3   |

**AA:** Students should be aware that AP test credit may correspond to an equivalent college course. A student who receives AP credit and then takes the equivalent course will have the unit credit for such duplication deducted prior to being awarded the A.A. or A.S. degree. Advanced Placement exam results and courses for which credit is granted will be posted on a student's transcript, with units assigned and no grade.

**CSU GE:** The Advanced Placement examinations may be incorporated into the certification of CSU General Education-Breadth requirements by any certifying institution. All CSU campuses will accept the minimum units shown and apply them toward fulfillment of the designated General Education-Breadth area if the examination is included as part of a full or subject-area certification. Please note that individual CSU campuses may choose to grant more units than those specified toward completion of General Education-Breadth requirements.

**IGETC:** AP exams must be used in an area indicated regardless of where the certifying California Community College's discipline is located. Many Colleges or Universities may apply AP credit toward satisfaction of subject or specific requirements (e.g. major). AP policies vary by institution. See the website for policy information of the individual institutions: [www.collegesearch.collegeboard.com/apcreditpolicy/index.jsp](http://www.collegesearch.collegeboard.com/apcreditpolicy/index.jsp)

## **International Baccalaureate (IB):**

Students can earn OCC credit for International Baccalaureate examinations with a minimum score of 5. Exam results can be used to satisfy CSU General Education Breadth and IGETC requirements but may require a score of 4 in some of the areas.

Students can earn IB credit with minimum score of 5 except where noted.\*

| EXAM   | OCC AA/AS GE Area     | CSU GE Area         | CSU Min. Units Earned Toward Transfer | IGETC Area                      | UC Sem. Units Earned Toward Transfer |
|--|-----------------------|---------------------|---------------------------------------|---------------------------------|--------------------------------------|
| BIOLOGY HL                                       | B<br>3 units          | B2<br>3 units       | 6                                     | 5B<br>(without lab)<br>3 units  | 5.3                                  |
| CHEMISTRY HL                                     | B<br>3 units          | B1<br>3 units       | 6                                     | 5A<br>(without lab)<br>3 units  | 5.3                                  |
| ECONOMICS HL                                     | D2/D<br>3 units       | D2<br>3 units       | 6                                     | 4B<br>3 units                   | 5.3                                  |
| GEOGRAPHY HL                                     | D2/D<br>3 units       | D5<br>3 units       | 6                                     | 4E<br>3 units                   | 5.3                                  |
| HISTORY<br>(any region) HL                       | D2/C2 or D<br>3 units | C2 or D6<br>3 units | 6                                     | 3B or 4F<br>3 units             | 5.3                                  |
| LANGUAGE A1<br>(any language, except English) HL | C1/C2<br>3 units      | N/A                 | 0                                     | 3B & 6A<br>(UC only)<br>3 units | 5.3                                  |
| LANGUAGE A2<br>(any language, except English) HL | C1/C2<br>3 units      | N/A                 | 0                                     | 3B & 6A<br>(UC only)<br>3 units | 5.3                                  |
| LANGUAGE A1<br>(any language) HL                 | C1/C2<br>3 units      | C2*<br>3 units      | 6*                                    | 3B<br>3 units                   | 5.3                                  |
| LANGUAGE A2<br>(any language) HL                 | C1/C2<br>3 units      | C2*<br>3 units      | 6*                                    | 3B<br>3 units                   | 5.3                                  |
| LANGUAGE B<br>(any language) HL                  | C1/C2<br>3 units      | N/A                 | 6*                                    | 6A<br>3 units                   | 5.3                                  |
| MATHEMATICS HL                                   | A2<br>3 units         | B4*<br>3 units      | 6*                                    | 2A<br>3 units                   | 5.3                                  |
| PHYSICS HL                                       | B<br>3 units          | B1<br>3 units       | 6                                     | 5A<br>(without lab)<br>3 units  | 5.3                                  |
| PSYCHOLOGY HL                                    | D<br>3 units          | D9<br>3 units       | 3                                     | 4I<br>3 units                   | 5.3                                  |
| THEATRE HL                                       | C<br>3 units          | C1*<br>3 units      | 6*                                    | 3A<br>3 units                   | 5.3                                  |

\* A minimum of score of 4 is needed for CSU credit

**CSU GE:** The IB examinations may be incorporated into the certification of CSU General Education-Breadth requirements by any certifying institution. All CSU campuses will accept the minimum units shown and apply them toward fulfillment of the designated General Education-Breadth area if the examination is included as part of a full or subject-area certification. Please note that individual CSU campuses may choose to grant more units than those specified toward completion of General Education-Breadth requirements.

**IGETC:** IB exams must be used in area indicated regardless of where the certifying CCC's discipline is located.

## **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](http://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 the 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 (IYTC). 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 indicating honorable discharge, 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 each course 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 |
| MW    | Military Withdrawal                  | 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 prior to the third Monday of the term for full semester classes, or 20 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.
- f. A student may only attend the class meetings they missed due to the justifiable circumstance.

## ***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 Pass/No Pass 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 grade pass/no pass 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
- 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.

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## **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 30 days 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.) Students should go to counseling for proper form.

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 substandard grade (“D”, “F” or “NP”) 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** - July 1 through August 1

**Fall** - September 1 through November 1

**Spring** - January 2 through March 1

## Certificate Awards

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

- 1. Certificate of Achievement:** Requires 18 or more units in an approved program. Certificates of Achievement are not automatically awarded. A petition must be filed in the Enrollment Services 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** - July 1 through August 1

**Fall** - September 1 through November 1

**Spring** - January 2 through March 1

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

## Waiver of 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. Prior to the activity, instructors are responsible for submitting Co-Curricular Participation Lists to their academic division office. All others are responsible for submitting lists to the Dean of Student Services. 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 student class program (web schedule bill), 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.

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## **Honors Program**

### ***Your Invitation to the OCC Honors Program***

The OCC Honors Program provides an enriched collegiate experience for intellectually curious and highly motivated students. The Program celebrates the collaborative effort of students and instructors in reciprocal teaching-learning environments that promote student initiative, knowledge, curiosity about the world of ideas, and concern for current social issues.

### ***Honors Courses***

OCC Honors courses may be taken by OCC students who wish to engage in a more rigorous learning experience, whether or not they are enrolled in the Honors Program itself. The courses are challenging and demand a significant commitment of time for study and engagement. Honors instructors enhance basic curriculum requirements of their classes by offering more opportunities for intensive study than is possible in most non-Honors sections. Freedom of inquiry and student discovery are stressed. The generally smaller Honors sections are intended to foster discussion, mastery of content, critical thinking, and analysis. Guest speakers, field trips, and comprehensive research, including the presentation of results, further enhance many Honors sections.

### ***Writing Skills and Honors Courses***

While there are no prerequisites for Honors sections other than those that apply to non-Honors sections of the same courses, many Honors courses include scholarly reading and writing assignments, including research and essay-style exams. Strong college-level writing skills are critical to student success. Prior completion of or concurrent enrollment in English 100 or higher is strongly recommended.

## **Multiple Paths within Honors**

Students enroll in the Honors Program for a variety of reasons and not all students are expected (or required) to pursue the same path or take advantage of the same benefits. In fact, certain benefits may not be available to all Honors students, depending on choice of major or target transfer school. Students are further advised that involvement in Honors Program on- and off-campus events, projects, academic conferences, creative works competitions, and social gatherings are recommended. These activities provide a variety of personal development opportunities and may improve the likelihood of selection for transfer admission and scholarship awards.

## **Benefits of Enrollment**

For all students enrolled:

- Close interaction with enthusiastic learners and passionate instructors
- Flexible, rigorous coursework emphasizing research, critical thinking, and writing skills
- Added preparation for upper division coursework
- Opportunities to develop leadership and organizational skills through the Honors Student Council (HSC)
- Access to specialized Honors Counseling

## **UCLA and UCI library privileges**

Special activities, including guest speakers, seminars, field study, and social events

Opportunities to present research and creative works at prestigious academic conferences

Notation of each Honors course on transcripts

Exclusive scholarship opportunities

## **Benefits of Certification**

For students who choose to complete Honors Program Certification requirements:

- Earn priority consideration for transfer admission to a number of respected four-year institutions, including UCLA and UCI
- Receive a notation on official OCC transcripts of Honors Program completion
- Earn the privilege of wearing the Program's distinctive sage and silver Honors regalia and receiving recognition in the graduation program

## **Enrollment Procedures**

Students may apply to the OCC Honors Program year-round, whenever they believe they have met all of the enrollment criteria:

Successful applicants will:

- Be in good standing with the OCC Dean of Students Office and adhere to the Coast Community College District Student Code of Conduct and Disciplinary Procedures (Refer to the OCC Catalog for detailed information.)
- Be currently enrolled in OCC classes
- Complete an Honors Orientation prior to submitting an application (Visit the Honors Program website to make a reservation for an Orientation session.)
- Meet the English composition requirement in one of the following ways:
  - Receive an exemption from English 100 with an AP exam score of 3 or higher
  - Complete at least one qualifying English composition course with a grade of A or B: English 100, 101, 101H, 102, 102H, or 109

## **Submit an application to the Honors Program**

**Students who graduated from high school less than one year prior to submitting an Honors Program application AND who have completed fewer than 12 units of letter-graded college coursework MUST:**

- Have a minimum final cumulative high school GPA of 3.25 for grades 9-12; AND
- Have a minimum cumulative GPA of 3.25 in all college coursework completed

**All students who have completed 12 or more units of letter-graded college coursework MUST:**

- Have a minimum cumulative GPA of 3.25 in all college coursework completed

**Note:** Applicants are required to submit transcripts from all colleges attended. Grades of D, F, or NP earned within the Coast Community College District at any time, or at another college during the two years prior to entering any of the CCCD colleges, must be "excluded" through course repetition or academic renewal. Incomplete grades of ID, IF, or INP must be resolved with a final grade for course completion. The total combined cumulative GPA will be calculated on GPA units and GPA points earned at all institutions attended.

## **Continuing Enrollment**

After enrolling in the Honors Program, students will receive continuing benefits provided that they:

- Remain in good standing with the OCC Dean of Students Office and adhere to the Coast Community College District Student Code of Conduct and Disciplinary Procedures. (Refer to the OCC Catalog for detailed information.)
- Remain enrolled in OCC classes or file a notification for a "Leave of Absence" with the Honors Office for up to one year
- Meet with an Honors Counselor at least once each academic year (preferably each semester before registering for the next semester's classes)
- Complete at least one Honors course within one year of initial enrollment
- Maintain a minimum cumulative GPA of 3.25 in all transferable coursework and avoid grades below C (Grades of D, F, NP, ID, IF, or INP must be resolved the following semester through course repetition or successful completion. If eligible for Academic Renewal, a written notification must be filed with the Honors Office.)

## **Completion Requirements**

Special recognition is awarded to transferring or graduating students enrolled in the Honors Program who meet the following requirements:

- Complete of a minimum of 15 units† of Honors coursework, distributed over at least three different subjects, with a letter grade of C or higher earned in each
- Earn a minimum cumulative GPA of 3.50 in all transferable coursework, including courses taken at other institutions
- Earn a grade of A or B in at least one qualifying English composition course (English 100, 101, 101H, 102, 102H, 109) or receive an exemption from English 100 with an AP score of 3 or higher
- Obtain an exclusion for all grades of D, F, or NP through course repetition or academic renewal prior to the start of the final semester, and earn a passing grade in all previously "Incomplete" courses

## **Certification Requirements**

Eligibility for Honors transfer priority requires that students meet applicable university transfer requirements AND Honors Program certification criteria: general education breadth, selective-major prerequisites, and completion of at least 12 units of Honors coursework before the start of the final OCC semester. (Up to 3 of the required 15 total Honors units† may

be in progress at the time certification is requested.)

Up to one half of UC-transferable Honors units earned at another college may be accepted toward Program completion at OCC. (Submit official transcripts to the Honors Office for a determination.)

## **Exceptions to Policies**

Exceptions to policies for enrollment, completion, or certification may be requested through the appeals process. For further information, contact the Honors Office.

## **Contact Us**

Please visit the honors program office in Watso Hall, room 287 or visit our website at [www.occhons.org](http://www.occhons.org) or call (714-432-5601) for more information. Please refer to the Honors Program website for the most up-to-date news and policy information.

## **Alpha Beta Gamma**

Orange Coast College is accredited by Alpha Beta Gamma International Business Honor Society to initiate members into the honor society for business and related professional disciplines. For additional information about the society, refer to [www.abg.org](http://www.abg.org). For more information about OCC's chapter or for an application, please contact the Academic Honors Office (Watson Hall 287, 714-432-5601) or email [abg@occ.cccd.edu](mailto:abg@occ.cccd.edu).

## **Alpha Gamma Sigma**

Alpha Gamma Sigma is the California Community College Scholastic Honor Society, established in 1923. The Orange Coast College

Chapter is "Alpha Kappa." Initial membership is granted to applicants who have met the minimum requirements. In order to receive graduation recognition and transcript notation, members must earn Permanent status through membership renewals. For full details about membership requirements and benefits, as well as a current application, go to: [www.orangecoastcollege.edu/ags](http://www.orangecoastcollege.edu/ags) or email the chapter at: [ags@occ.cccd.edu](mailto:ags@occ.cccd.edu)

## **Mu Delta Rho**

Mu Delta Rho is the Pre-Health Honor Society of Orange Coast College. The goals are to recognize the academic achievements of community college students preparing for a health profession, nurture and develop the qualities required to be a good health care practitioner, and encourage members in their pursuit of excellence, knowledge and beneficence. To be eligible for membership, students must submit an application; pay one-time dues; demonstrate the qualities of character, citizenship and service (as evidenced by a letter of recommendation); hold a mini-

mum cumulative GPA of 3.0; and have a minimum GPA of 3.5 in the qualifying allied health or pre-health coursework listed below.

**Qualifying Coursework for Allied Health Student Eligibility:** Completion of 15 units or 50% (whichever is less) of required core coursework (prerequisite courses cannot count toward the 15 units) in an OCC Allied Health program. For a list of applicable core courses, refer to the specific allied health program requirements.

**Qualifying Coursework for Pre-health Student Eligibility:** Students preparing for baccalaureate or graduate level health professions must complete at least 15 units of approved pre-requisite courses in biology, chemistry, mathematics, physics, and other required disciplines.

For more information about Mu Delta Rho, including the application and list of qualifying courses, please refer the Academic Honor Societies section of the OCC website.

## **Mu Alpha Theta**

Mu Alpha Theta is a national mathematics honor society for high school and community college students. The Orange Coast College chapter was established in 1971. Eligibility requires completion of at least 12 units of OCC coursework with a cumulative GPA of 3.25, as well as completion of qualifying mathematics courses (Math 157 and higher, excluding Math 160 and Math 220) with grades of A or B only. Candidates for membership will receive an email invitation, or may contact the Honors Office to obtain an application.

For more information, go to: [www.orangecoastcollege.edu/mat](http://www.orangecoastcollege.edu/mat) or email the chapter at: [mat@occ.cccd.edu](mailto:mat@occ.cccd.edu)

## **Omega Psi Sigma**

Omega Psi Sigma (Alpha Chapter) is the Orange Coast College Honor Society for Political Science. The goals of the Society are to recognize academic achievement in political science coursework, to promote scholarly research and participation at academic conferences, to support student efforts for transfer into political science, pre-law and other majors at four-year institutions, and to provide opportunities for student engagement in political issues through raised awareness and experience. The chapter accepts new life-time members during the spring and fall semesters and requires a minimum 3.25 cumulative GPA as well as among political science courses. A one-time payment of dues must accompany the application (refundable if the application is not approved). Members in good standing are eligible to purchase and wear honors regalia at graduation.

For the most current information about complete membership eligibility criteria and activities, please visit the chapter website: [www.orangecoastcollege.edu/ops](http://www.orangecoastcollege.edu/ops)

## Phi Alpha Mu

PHI ALPHA MU was created in 1957 by the Orange Coast College Social and Behavioral Sciences faculty. It grew from a desire to recognize, honor, and encourage outstanding student achievement in OCC social and behavioral sciences courses. The name was derived from Thucydides who, in reporting the Funeral Oration of Pericles, described the Athenians as searching for "wisdom without loss of strength." The name, accordingly, is intended to signify an organic fusion of Philosophy, Anthropology, and other matters pertaining to the Muses. Thus, through these studies individuals can achieve "wisdom without loss of strength."

Phi Alpha Mu offers open membership enrollment to students during the first four weeks of the Fall and Spring semesters. Phi Alpha Mu membership benefits include the following:

1. Notation on student's OCC transcript,
2. Commencement regalia and recognition during graduation ceremonies,
3. Leadership, Service and Scholarship portfolio development, and
4. Opportunity for club-active society members to compete for scholarship awards.

Qualifications for membership:

Freshman students must have completed a minimum of 9 units in Social/Behavioral Sciences courses with a 3.50 grade point average or higher in these courses. In addition, the student's Orange Coast College overall grade point average must be at least 3.00.

Sophomore students must have completed a minimum of 12 units in Social/Behavioral Sciences courses with a 3.50 grade point average or higher in these courses. In addition, the student's Orange Coast College overall grade point average must be at least 3.00.

Qualifying courses include:

American Studies, Anthropology, Economics, Ethnic Studies, Gender Studies, Geography, History, Humanities, Philosophy, Political Science, Psychology, Religious Studies, and Sociology.

Honor Society Membership Dues:

Beginning Fall 2010, lifetime membership dues (\$5) must be attached to completed applications in the form of a check or money order made out to the OCC Foundation.

*Note: Current enrollment in courses does not count towards qualification. Only OCC courses with grades that are listed and highlighted on the transcripts will be considered.*

## 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.

For more information, go to: [www.orangecoastcollege.edu/ptk](http://www.orangecoastcollege.edu/ptk) or email the chapter at [ptk@occ.cccd.edu](mailto:ptk@occ.cccd.edu)

## 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.

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## 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 any college for graduation or grade point average (GPA) purposes only. These conditions are:

1. The course work to be disregarded is substandard. The average grade points of the courses 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 cumulative GPA of at least 2.0 in all course work subsequent to the course work to be disregarded.
3. At least 12 months have elapsed since the most recent course work to be disregarded.
4. **All substandard course work** shall be disregarded, except those courses required 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 an A.A./A.S. degree or Certificate of Achievement toward graduation.

NOTE: It is important to understand that ALL COURSE WORK 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, even if satisfactory, are to be disregarded. This notation will be made at the time that the academic renewal has been approved by the appropriate college office.

If another accredited college has acted to remove previous course work 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 course work 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.

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## **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)

## Graduation Requirements

### **Institutional Student Learning Outcomes (SLOs) (ISLOs)**

1. Communication: Students will communicate effectively, which includes:
  - Reading: Students will be able to comprehend and interpret various types of written information in prose and in documentation.
  - Writing: Students will demonstrate the ability to communicate thoughts, ideas, and information in writing.
  - Listening: Students will be able to receive, attend to, interpret and respond appropriately to verbal and/or nonverbal messages and cues.
  - Speaking: Students will be able to organize ideas and communicate verbal or non-verbal messages and cues appropriate to the audience and the situation.
  - Non-verbal: Students will be able to interpret and communicate nonverbal messages and cues.
2. Thinking Skills: Students will think critically, which includes:
  - Critical, creative, and analytical thinking: Students will be able to reach decisions, solve problems, and make judgements and evaluations using critical, creative and analytical skills.
  - Quantitative reasoning: Students will develop and demonstrate problem solving skills by using critical thinking and logical reasoning.
  - Information competency: Students will demonstrate abilities to determine the extent of information needed; obtain data from various sources; evaluate the information and its sources critically; cite their sources correctly to avoid plagiarism; and understand the ethical and legal issues surrounding the use of information.
  - Technological competency: Students will demonstrate a firm grounding in the foundational concepts of computing in information technology; apply these concepts through the use of contemporary hardware, software, and network infrastructure; and access, interpret, and apply information that facilitates learning and critical inquiry.
3. Social and Global Awareness: Students will demonstrate a measurable understanding of the world, which includes:
  - Science and society: Students will apply critical thinking skills concerning the causes and effects of natural phenomena and will become familiar with the rational approach that researchers use to analyze data and formulate logical conclusions.
  - The arts and society: Students will develop skill sets associated with the arts by analyzing aesthetic qualities, evaluating and devising rational arguments, identifying cultural and historical influences, and engaging in artistic expression and experiences.
  - Social diversity: Students will describe how knowledge from different cultural and moral perspectives would affect their interpretations of prominent problems in politics, society, the arts and /or global relations.

Civics: Students will use theoretical and methodological principles of the social and behavioral sciences to explain and evaluate the human experience; describe institutional, group, and individual processes across social and global contexts or historical periods; and communicate the concepts, theories, and methods used to understand social, political, economic institutions and individual behavior.

### ***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.

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 General Education 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 major-related units of credit 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.

## Associate in Arts Graduation Requirements - 2012-2013

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 34. 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                 | Geology           |
| Art                          | Health            |
| Biology                      | History           |
| Business                     | Kinesiology       |
| Chemistry                    | Liberal Arts      |
| Communication Studies        | Music             |
| Communications               | Philosophy        |
| Computer Information Systems | Photography       |
| Dance                        | Physics           |
| Economics                    | Political Science |
| English                      | Psychology        |
| Film Studies                 | Religious Studies |
| Food & Nutrition             | Social Science    |
| Foreign Languages            | Sociology         |
| Geography                    | Theatre Arts      |
|                              | 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

### 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 or 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, any math course except A005, A008, A010, A020 and A220. Machine Technology A121, Technology A040 or A047 will not fulfill this requirement.

### 7. KINESIOLOGY 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 kinesiology, athletics 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 or A100H, A102, A110, A150, A190,  
Art A108  
Communication Studies A155  
Dance A130, A133, A135, A137, A138,  
Early Childhood A126  
English A152, A173  
Ethnic Studies A100, A150, A190  
Food and Nutrition A185  
Geography A150, A185  
History A101, A150,  
Philosophy A110, A120  
Psychology A105  
Religious Studies A110, A120, A140, A150, A160,  
Sociology A100 or A100H, A150, A190,

**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 July 1 through August 1

### FALL GRADUATION

Petition September 1 through November 1

### SPRING GRADUATION

Petition January 2 through March 1

## AA General Education - Option 1

### Orange Coast College General Education Requirements for the AA Degree 2012-2013

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  
 Communication Studies A100, A110, A120, A180, A220  
 Digital Media Arts and Design A181  
 Electronic Technology A047  
 English A101 or A101H, A102 or A102H, A105, A109  
 Machine Technology A121  
 Any Math course except A005, A008, A010, A020, A220  
 Philosophy A150  
 Psychology A160, A270  
 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 or A100H, A100 & A100L, A100H & A100L, A101, A102, A103  
 Biology A100, A101, A114, A125, A180 or A180H, A182, A182 & A182L, A183, A183 & A183L, A185, A210, A220 or A220H, A221  
 Chemistry A100, A110, A130, A180  
 Ecology A100  
 Food and Nutrition A195  
 Geography A130, A180 or A180H, A180 & A180L, A180H & A180L  
 Geology A105 or A105H, A105 & A105L or A105H & A105M, A105 & A105M, A105H & A105L, A106, A160, A110, A185, A185 & A185L  
 Kinesiology A272, A282  
 Marine Science A100, A100 & A100L, A100H & A100M, A100 & A100M, A100H & A100L, A180, A180 & A180L, A185, A185 & A185L  
 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 or A100H, A101 or A101H, A102, A103, A104, A107, A108  
 Communication Studies A120, A180  
 Dance A160, A170, A200  
 DMAD A150  
 English A119, any literature course A141 through A285  
 English as a Second Language A099  
 Film/Video A100, A103, A150  
 Foreign Language - any course numbered A180 through A285  
 History A150, A180 or A180H, A185 or A185H  
 Humanities A100, A101 or A101H  
 Interior Design A180, A190  
 Music A100, A105, A139, A143, A180  
 Philosophy A100, A110, A115, A118, A120, A150, A165, A185  
 Photography A101, A130  
 Religious Studies A100, A110, A115, A120, A130, A140, A150, A180  
 Theater Arts A100, A101, A105

**2. Active Participation**

Art A110, A115, A120 or A120H, A125, A141, A142, A145, A147, A150, A263, A269  
 Communication Studies A110, A120, A150  
 Construction Technology A116  
 Dance A101, A102, A106, A107, A108, A110, A115, A116, A117, A118, A120, A125, A152, A130, A133, A135, A136, A137, A138, A139, A142, A143, A144, A145, A146, A147, A148, A149, 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, A140, A141, A144, A145, A150, A230, A233, A234  
 Photography A120 or A120H, A123  
 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

**2. Social and Economic Institutions**

Anthropology A100 or A100H, A102, A105, A110, A150, A280, A285  
 Communication Studies A165  
 Economics A100, A170, A175  
 Ethnic Studies A100, A150, A190  
 Gender Studies A100, A120, A130, A150, A165, A187  
 Geography A100 or A100H, A150, A160, A185  
 History A101, A115, A128, A140, A145, A161 or A161H, A162 or A162H, A179, A180 or A180H, A185 or A185H, A187, A190, A195, A197, A198  
 Psychology A105  
 Political Science A101, A110, A185  
 Sociology A100 or A100H, A105, A150, A185 or A185H, A190

**3. Behavioral Science**

Health Education A220  
 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\*  
 Communication Studies A100, A155, A170  
 Computer & High Technology A100  
 Computer Information Systems A100, A122  
 Counseling A100, A101, A105, A109, 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, A136, A270, A271  
 Human Development A190  
 Interior Design A100  
 Kinesiology A270, A271  
 Library A100  
 Philosophy A120  
 Psychology A110, A140, A165, A200, A215  
 Religious Studies A120  
 Sociology A105, A110

\* Does not meet requirement in mathematics for graduation

## AA General Education - Option 2

### General Education Breadth Requirements for California State University (CSU) 2012-2013

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 Communication Studies 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 General Education 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 2012 THROUGH SUMMER 2013.** For courses taken prior to Fall 2012, 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: ENGLISH LANGUAGE COMMUNICATION 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**  
Communication Studies A100, A110
- A2 Written Communication**  
English A100
- A3 Critical Thinking**  
Communication Studies A220  
English A101 or A101H, A102 or A102H, A109  
Mathematics A220  
Philosophy A150, A220

#### AREA B: SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING

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.

- B1 Physical Science**  
Astronomy A100 or A100H, A100 & A100L, A100H & A100L, A101, A102, A103  
Chemistry A100, A110, A130, A180, A185, A220, A220L, A225, A225L  
Geography A130, A180 or A180H, A180 & A180L, A180H & A180L  
Geology A105 or A105H, A105 & A105L, A105H & A105M, A105H & A105L, A105 & A105M, A106, A110, A160, A185, A185 & A185L  
Marine Science A185, A185 & A185L  
Physics A110, A120, A130, A185
- B2 Life Science**  
Anthropology A185, A185 & A185L  
Biology A100, A101, A125, A180 or A180H, A182, A182 & A182L, A183, A183 & A183L, A185, A210, A220 or A220H, A221, A225 or A225H  
Ecology A100  
Marine Science A100 or A100H, A100 & A100L, A100H & A100M, A100 & A100M, A100H & A100L, A180, A180 & A180L  
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, A115, A120, A140, A155, A160 or A160H, A170, A180 or A180H, A182H, A185 or A185H, A230, A235, A260, A280 or A280H, A285 or A285H, A290H  
Psychology A160

#### AREA C: ARTS AND HUMANITIES

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 or A290H, A296 or A296H
- Art A100 or A100H, A101 or A101H, A102, A103, A104, A107, A108, A120, A125, A141, A142, A145, A147, A150, A263, A269
- Digital Media Arts and Design A150, A181
- Film/Video A100, A103, A150
- Humanities A100#
- Interior Design A180, A190
- Music A100, A105, A115, A116, A139, A140, A143, A180
- Photography A101, A120, A130
- Theatre Arts A100, A101, A105, A106, A110

**C2 Humanities**

Anthropology A190  
 Chinese A180  
 Communication Studies A110, A120, A150A, A180  
 English A119, 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, A172, A173 or A173H, A181 or A181H, A176 or A176H, A187 or A187H, A270 or A270H, A275 or A275H  
 Ethnic Studies A100  
 French A180, A185, A280, A285  
 German A180, A185, A280, A285  
 History A101, A161 or A161H, A162 or A162H, A180 or A180H, A185 or A185H  
 Humanities A100# or A101H  
 Italian A180, A185, A280, A285  
 Japanese A180, A185, A280, A285  
 Mathematics A220  
 Philosophy A100, A110, A115, A118, A120, A165, A185, A220  
 Religious Studies A100, A110, A115, A120, A130, A140, A150, A180  
 Spanish A180 or A180H, A185 or A185H, A260, A280 or A280H, A285  
 Vietnamese A180, A185, A280, A285

# This course will satisfy either C1 or C2

**AREA D: SOCIAL SCIENCES**

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

- D1 Anthropology**  
 Anthropology A100 or A100H, A102, A110, A190, A280, A285
- D2 Economics**  
 Economics A100, A110, A170, A175
- D3 Ethnic Studies**  
 Anthropology A150  
 Ethnic Studies A100, A150, A190  
 History A101, A150  
 Sociology A150, A190
- D4 Gender Studies**  
 Communication Studies A165  
 Gender Studies A100, A120, A130, A150, A165, A187  
 History A176, A187  
 Psychology A105
- D5 Geography**  
 Geography A100 or A100H, A150, A160, A185
- D6 History**  
 History A100, A101, A110, A115, A128, A145, A161 or A161H, A162 or A162H, A170 or A170H, A175 or A175H, A179, A180 or A180H, A185 or A185H, A190, A195, A197, A198
- D7 Interdisciplinary**  
 American Studies A100  
 Communication Studies A155  
 Health Education A122  
 Human Development A180  
 Psychology A165  
 Psychology A105, A135  
 Sociology A105 or Anthropology A105
- D8 Political Science**  
 Political Science A101, A110, A180 or A180H, A185, A188, A190
- D9 Psychology**  
 Psychology A100 or A100H, A185, A220, A260, A270
- D10 Sociology**  
 Sociology A100 or A100H, A110, A185 or A185H, A200

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

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

**Non-Activity**

Anthropology A105  
 Communication Studies A100, A170  
 Counseling A104, A105, A109, A110, A120, A135  
 Economics A110  
 Emergency Medical Services A100  
 Family & Consumer Science A180  
 Food & Nutrition A136, A140, A170  
 Health Education A100, A112, A134, A136  
 Human Development A180  
 Kinesiology A202, A270  
 Psychology A105, A110, A135, A140, A165, A200, A215

**Activity**

Athletics A109, A119, A222, A235, A236, A238, A240, A241, A242, A243, A244, A245, A246, A250, A251, A252, A253, A254, A255, A257, A258, A259, A260, 261, A263  
 Dance A111, A115, A116, A117, A121, A126, A129, A135, A137, A138, A139, A143, A144, A145, A146, A147, A148, A149, A152, A153, A208  
 Kinesiology A105, A106, A107, A108, A110, A111, A112, A113, A115, A116, A126, A127, A128, A129, A130, A131, A132, A134, A135, A136, 137, A138, A141, A145, A146, A147, A150, A151, A152, A153, A154, A155, A156, A170, A171, A172, A173, A174, A175, A176, A202, A207, A208, A228, A282  
 Marine Activities A136, A137, A138, A139, A140

**AMERICAN INSTITUTIONS REQUIREMENT** *(Not part of CSU General Education 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 or A170H, A175 or A175H, in Area D6 and Political Science A180 or A180H in Area D8 will fulfill this requirement.

## AA General Education - Option 3

### Intersegmental General Education Transfer Curriculum (IGETC) - 2012-2013

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 2012 THROUGH SUMMER 2013.** For courses taken prior to Fall 2012, 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)

Communication Studies A110

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

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

Psychology A160

Math A100, A115, A140, A155, 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 A290H, A296 or A296H

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

Dance A200

Digital Media Arts and Design A150

Film/Video A100

Music A100, A105, A115, A139, A143, A180

Photography A130

Theatre Arts A100, A101, A105

##### Group B: Humanities

Communication Studies A180

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 or A173H, A181 or A181H, A176 or A176H, A187 or A187H, A270 or A270H, A275 or A275H

Ethnic Studies A150

French A185, A280, A285

Gender Studies A187

German A185, A280, A285

History A100, A101, A110, A115, A128, A145, A150, A161 or A161H, A162 or A162H, A170 or A170H, A175 or A175H, A179, A180 or A180H, A185 or A185H, A187, A190, A195

Humanities A100, A101 or A101H

Italian A185, A280, A285

Japanese A185, A280, A285

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, A170, A175

##### 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

American Studies A100  
Communication Studies A155  
Human Development A180  
Psychology A135  
Psychology A165

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

Chemistry A100, A110, A130, A180, A185, A220, A220L, A225, A225L

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

Geology A105 or A105H, A105 & A105L or A105H & A105L or A105 & A105M or A105H & A105L, A160, A110, A185, A185 & A185L

Marine Science A185, A185 & A185L

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

### Group B: Biological Science

Anthropology A185, A185 & A185L

Biology A100, A101, A125, A180 or A180H, A182, A182 & A182L, A183, A183 & A183L, 185, A210, A220 or 220H, A221, A225, A225H

Ecology A100

Marine Science A100 or A100H, A100 & A100L or A100H & A100M or A100 & A100M or A100H & A100L, A180, A180 & A180L

Psychology A250

## 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).

E. Complete a Defense Language Institute course in a language other than English with a grade of "C" or better (documentation must be on file with Admissions and Records).

## 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.

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 - 2012-2013

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 | Natural      |
| Biology      | Sciences     |
| Chemistry    | Physics      |
| Engineering  | Ornamental   |
| Geology      | Horticulture |
| Mathematics  |              |

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: Psychology A160, any math course except A005, A008, A010, A020 and A220. Machine Technology A121, Technology A040 or A047 will not fulfill this requirement.

### 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

Communication Studies **A100, A110\*, A220**

Computer Science A115

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

Mathematics **A100, A103, A104, A106,**

**A115\*, A120, A140\*, A155\*, A160\***

or **A160H\*, A170\*, A180\* or A180H\*,**

**A182H\*, A185\* or A185H\*, A230\*,**

**A235\*, A260\*, A280\* or A280H\*,**

**A285\* or A285H\*, A290H\***

Philosophy **A150\***

Philosophy/Mathematics **A220**

Psychology **A160\*, A270**

#### AREA B: PHYSICAL AND BIOLOGICAL SCIENCES

3 semester units (or 4 quarter units).

Anthropology **A185\***

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

Biology **A100\*, A101\*, A125\*, A180\* or A180H\*, A182\*, A183\*, A185\*, A210\*, A220\* or A220H\*, A221\***

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

Ecology **A100\***

Food and Nutrition A195

Geography A130, **A180\* or A180H\***

Geology **A105\* or A105H\*, A106\*, A160\*, A110\*, A185\***

Health Education **A100\***

Marine Science **A100\* or A100H\*, A180\*, A185\***

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\* or A290H\* A296\* or A296H\***

Art **A100\* or A100H\*, A101\* or A101H\*, A102\*, A103\*, A104\*, A107\*, A108\*, A110, A120 or A120H, A125, A141, A142, A145, A147, A150, A263, A269**

Dance **A101, A102, A106, A107, A108, A110, A115, A116, A117, A118, A120, A125, A130, A133, A135, A136, A137, A138, A139, A142, A143, A144, A145, A146, A147, A148, A149, A150, A152, A160, A170, A200, A211**

Digital Media Arts and Design **A150, A181**

Film/Video **A100\*, A103, A110, A150**

Humanities **A100**

Interior Design **A180, A190**

Music **A100\*, A105\*, A115\*, A139\*, A143\*, A180\***

Photography **A101, A120 or A120H, A123, A130\***

Theatre Arts **A100\*, A101\*, A105\*, A106, A110, A170**

**C2 Humanities**

Anthropology **A190**  
Communication Studies **A110, A180\*, A120, A150**  
English **A119, 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\*, A172, A173\* or A173H\*, A176\* or A176H\*, A181\* or A181H\*, A187\* or A187H\*, A270\* or A270H\*, A275\* or A275H\***  
Ethnic Studies **A100, A150\***  
French **A180, A185\*, A280\*, A285\***  
Gender Studies **A187\***  
German **A180, A185\*, A280\*, A285\***  
History **A100\*, A101\*, A110\*, A115\*, A128\*, A145\*, A150\*, A161\* or A161H\*, A162\* or A162H\*, A170\* or A170H\*, A175\* or A175H\*, A179\*, A180\* or A180H\*, A185\* or A185H\*, A187\*, A190\*, A195\***  
Humanities **A100\*, A101\* or A101H\***  
Italian **A180, A185\*, A280\*, A285\***  
Japanese **A180, A185\*, A280\*, A285\***  
Mathematics **A220**  
Communication Studies **A180\***  
Philosophy **A100\*, A110\*, A115\*, A118\*, A120\*, A165\*, A185\*, A220**  
Psychology **A105**  
Religious Studies **A100, A110, A115\*, A120\*, A130\*, A140\*, A150\*, A180\***  
Spanish **A180, A185\* or A185H\*, A280\* or A280H\*, A285\***  
Vietnamese **A180, A185\***

**AREA D: SOCIAL AND BEHAVIORAL SCIENCES**

3 semester units (or 4 quarter units).

American Studies **A100**  
Anthropology **A100\* or 100H\*, A102\*, A105\*, A110\*, A150\*, A190\*, A280\*, A285\***  
Communication Studies **A155\***, A165  
Economics **A100\*, A110, A170\* A175\***  
Ethnic Studies **A100\*, A150, A190\***  
Gender Studies **A100\*, A120, A130, A150, A165, A187\***  
Geography **A100\* or A100H\***, A150, **A160\*, A185\***  
Health Education **A122**  
History **A100, A101, A115, A128, A145, A161\* or A161H\*, A162 or A162H, A170 or A170H, A175 or A175H, A179, A180 or A180H, A185 or A185H, A187\*, A190, A195, A197, A198**  
Human Development **A180\***  
Political Science **A101\*, A110\***, A180\*, **A180H\*, A185\***  
Psychology **A100\* or A100H\*, A165\*, A185\*, A220\*, A260\***  
Sociology **A100\* or A100H\*, A105, A110\*, A185\* or A185H\*, A190\***

**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 July 1 through August 1

**FALL GRADUATION**

Petition September 1 through November 1

**SPRING GRADUATION**

Petition January 2 through March 1

## 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. Please refer to [www.ASSIST.org](http://www.ASSIST.org) for lower division major requirements to the CSU and UC systems.

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 as well as offering assistance in the four-year campus application process. The Transfer Center also sponsors a Transfer Day in the fall semester with representatives on campus from over 80 colleges and universities from both California and out-of-state colleges. 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](http://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.

### Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example COMM 110, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID COMM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to [www.assist.org](http://www.assist.org) to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at [www.assist.org](http://www.assist.org) for specific information on C-ID course designations. Counselors can always help students interpret or explain this information.

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

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

**Articulation Agreements** - These agreements between a particular California community college and a four-year institution identify comparable lower division courses between the two institutions. These agreements are designed to help students prepare for transfer into a particular major at a specific institution.

ASSIST can be accessed at [www.assist.org](http://www.assist.org).

## Course Requirements for Transfer Students

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

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

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## 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](http://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

Communication Studies A180

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 A180 (or A180H), 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 A170, A175, Computer Information Systems A111, Math A115 or A155, Math A140, 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 A140 and A155.

### 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.

## 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 A170, A175, 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), A270, A275

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 A180, 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 A110, 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 A170, A175

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.

## Kinesiology

See Transfer Curriculum Guide for requirements.

## Journalism

Communication Studies 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 A180, 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.

## 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.

## Public Relations

Communication Studies 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 A100 (or A100H)

## Social Science

See Transfer Curriculum Guide for requirements.

## Social Work

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

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

## 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.

## 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 General Education Breadth and the IGETC should be completed in their entirety prior to transfer. Students can request partial certification of CSU General Education 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 General Education Breadth list taught at any of the California community colleges. Courses from foreign institutions cannot be used in the certification process.

Students requesting CSU General Education 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 General Education 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 General Education 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.

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## 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 Requirements:

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.

## 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 General Education Option 3) or the CSU General Education breadth Requirements (OCC General Education 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. English Language Learning and Critical Thinking - 9 units
- B. Scientific Inquiry and Quantitative Reasoning - 9 units
- C. Arts and Humanities -9 units
- D. Social Sciences - 9 units
- E. Life-Long Learning 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 and a course in Political Science 180 or 180H in Area D.

## 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.

The IGETC should be completed in its entirety prior to transfer. Students who are missing no more than 2 courses prior to matriculation at a four year institu-

tion may request partial certification during any term except in the final term prior to graduation from the four year institution.

## California State University Transfer Degrees

Requirements for the Associate in Arts for transfer (AA-T) or Associate in Science for transfer (AS-T)

The Student Transfer Achievement Reform Act (Senate Bill 1440, now codified in California Education Code sections 66746-66749) guarantees admission to a California State University (CSU) campus for any community college student who completes an "associate degree for transfer", a newly established variation of the associate degrees traditionally offered at a California community college. The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements.

At the time of catalog publication, a student may earn an AA-T in Communication studies, Political Science, Psychology and Sociology or an AS-T in Early Childhood Education and Kinesiology. Additional majors are being developed. Please see a counselor for more information.

The following is required for all AA-T or AS-T degrees:

- 1. Minimum of 60 CSU-transferable semester units.
- 2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA. Please consult with a counselor for more information.
- 3. Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major as detailed in the transfer degrees section of the catalog. All courses in the major must be completed with a grade of C or better or a "P" if the course is taken on a "pass-no pass" basis.

- 4. Certified completion of the California State University General Education-Breadth pattern (CSU General Education Breadth – Option 2); OR the Intersegmental General Education Transfer Curriculum (IGETC – Option 3).

## Associate in Arts in Communication Studies for Transfer

The Orange Coast College Associate in Arts in Communication Studies for transfer program provides students with communication skills that they can apply in personal, professional and global contexts. In these courses students will learn to improve their oral and written communication skills in the areas of critical thinking, organization, analysis, argumentation and presentation of information. Students will learn to improve their verbal and non-verbal interpersonal communication skills in the areas of listening, perception, self-concept, conflict resolution, intercultural and gender communication. These skills are developed in Communication Studies A100, A105, A110, A150, A155, A165, A170, A180, and A220.

Complete the following: 9 units:

| Course                      | Units |
|-----------------------------|-------|
| Public Speaking             | 3     |
| Interpersonal Communication | 3     |
| Essentials of Argumentation | 3     |

Complete 6 units, choosing from the courses below:

| Course                                | Units |
|---------------------------------------|-------|
| Readers Theatre & Oral Interpretation | 3     |
| Forensics Workshop                    | 3     |
| Men, Women and Communication          | 3     |
| Nonverbal Communication               | 3     |
| Intercultural Communication           | 3     |
| Mass Communication                    | 3     |

Complete 3 units by choosing from a course not yet chosen from the above category or by choosing from the courses below:

|                              |   |
|------------------------------|---|
| Intrapersonal Communication  | 3 |
| Communication *Nonverbal     | 3 |
| Communication *Intercultural | 3 |
| News Writing & Reporting     | 3 |
| Intro to Photography         | 3 |

**Total Major Units: 18**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

## Associate in Science in Kinesiology for Transfer

The Kinesiology and Athletics Division offers lower division courses to:

1. Provide the knowledge, skills and experience necessary for students to be qualified for careers in Kinesiology (physical education) and related fields.
2. Foster the development of an understanding of the importance and significance of physical activity's role in improving health and decreasing the risk of premature illness or death with the resultant improved quality of life throughout their lifespan.
3. Support lower division coursework required to be accepted and to be well-prepared to transfer to a four year college, with emphasis on the California State University system, as a Kinesiology (physical education) major.
4. Meet graduation requirements for the Orange Coast College Associate in Arts degree or the Associate in Science degrees.

### Required Core Courses: 16 units

|                      |      |      |   |
|----------------------|------|------|---|
| Intro to Kinesiology | KIN  | A202 | 3 |
| Human Anatomy        | BIOL | A220 | 5 |
| Human Physiology     | BIOL | A225 | 5 |

Select a minimum of one course from any three of the following areas for a maximum of 3 units:

### Aquatics:

|                         |     |      |        |
|-------------------------|-----|------|--------|
| Aqua Fitness            | KIN | A130 | .5-1.5 |
| Swimming for Fitness    | KIN | A131 | 1-2.5  |
| Swimming                | KIN | A132 | .5-1.5 |
| Intro to Sailing        | KIN | A136 | 1      |
| *Surfing & Ocean Safety | KIN | A141 | 2      |

### Combatives:

|               |     |      |        |
|---------------|-----|------|--------|
| Aikido        | KIN | A126 | .5-1.5 |
| Karate        | KIN | A127 | .5-1.5 |
| *Tai Chi Chih | KIN | A129 | .5     |

### Fitness:

|                           |     |      |        |
|---------------------------|-----|------|--------|
| Cardiovascular Fitness    | KIN | A105 | .5-2.5 |
| Weight Training           | KIN | A106 | .5-1.5 |
| Fitness Programs 1        | KIN | A107 | .5-3   |
| Strength & Conditioning 1 | KIN | A108 | .5-3   |
| Aerobics                  | KIN | A110 | .5-2.5 |
| Step Aerobics             | KIN | A111 | .5-1.5 |
| Triathlon Techniques      | KIN | A116 | 2.5    |

### Individual Sports:

|                         |     |      |        |
|-------------------------|-----|------|--------|
| Hatha Yoga – Level 1    | KIN | A128 | .5-1.5 |
| *Tai Chi Chih           | KIN | A129 | .5     |
| *Surfing & Ocean Safety | KIN | A141 | 2      |
| Tennis                  | KIN | A146 | .5-1.5 |
| Golf                    | KIN | A153 | .5-1.5 |
| Bowling                 | KIN | A155 | .5-1.5 |
| Rock Climbing           | KIN | A156 | .5-2   |
| Hatha Yoga – Level 2    | KIN | A228 | .5-1.5 |

### Team Sports:

|           |     |      |      |
|-----------|-----|------|------|
| Badminton | KIN | A145 | .5-1 |
|-----------|-----|------|------|

|            |     |      |        |
|------------|-----|------|--------|
| Basketball | KIN | A150 | .5-1.5 |
| Soccer     | KIN | A152 | .5-1.5 |
| Volleyball | KIN | A154 | .5-1.5 |

### List A Required (Select two): 6-10 units

|                                    |      |       |   |
|------------------------------------|------|-------|---|
| Intro to Statistics                | MATH | A160  | 3 |
| Intro to Statistics Honors         | MATH | A160H | 3 |
| Statistics for Behavioral Sciences | PSYC | A160  | 3 |
| Human Biology                      | BIOL | A125  | 3 |
| Intro to Chemistry                 | CHEM | A110  | 5 |
| General Chemistry A                | CHEM | A180  | 5 |
| Algebra-Based Physics: Mechanics   | PHYS | A120  | 4 |
| Calculus-Based Physics: Mechanics  | PHYS | A185  | 4 |
| First Aid and CPR                  | HLED | A112  | 2 |

**Total Major Units: 22-25**

**Total Major Units: 18**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

Note: \* can only be taken to satisfy one area.

## ~~Pending Chancellor's Office approval~~

## **Chancellor's Office approved for Fall 2012**

## Associate in Arts in Political Science for Transfer

The Political Science Department facilitates the success of general education students and political science majors by offering lower division courses in each of the sub-fields: American government, international relations, comparative politics, public law, and political theory. Political Science classes emphasize the importance of an informed citizenry, seek to instill the ability to analyze political phenomena in a critical way, and develop the communication skills to convey those analyses to others. The AA-T in political science is intended for political science majors who seek a bachelor's degree in a similar major at a CSU campus. Students completing the AA-T are guaranteed admission, but not necessarily to the major or campus of their choice.

**Complete the following required 12 units:**

| Course              |      |                          | Units |
|---------------------|------|--------------------------|-------|
| American Government | PSCI | A180<br>or<br>PSCI A180H | 3     |

**Complete 9 units, choosing from the courses below:**

|                            |      |                    |   |
|----------------------------|------|--------------------|---|
| Intro to Political Theory  | PSCI | A188               | 3 |
| Comparative Politics       | PSCI | A185               | 3 |
| International Relations    | PSCI | A110               | 3 |
| Intro to Political Science | PSCI | A200               | 3 |
| Intro to Statistics        | PSYC | A160/<br>MATH A160 |   |

Or

|   |      |      |   |
|---|------|------|---|
| Intro to Political Science Research Methods | PSCI | A201 | 3 |
|---|------|------|---|

**Complete 6 units, by choosing from a course not yet chosen from the above category or by choosing from the courses below:**

|   |      |      |   |
|---|------|------|---|
| Women, Politics, and Inequality         | GNDR | A130 | 3 |
| History of the United States to 1876    | HIST | A170 | 3 |
| History of the United States since 1876 | HIST | A175 | 3 |
| Microeconomics                          | ECON | A170 | 3 |
| Macroeconomics                          | ECON | A175 | 3 |
| Survey of Current Issues                | PSCI | A101 | 3 |
| Intro to the American Legal System      | PSCI | A190 | 3 |

**Total Major Units: 18**

**Total Major Units: 18**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

### Associate in Arts in Psychology for Transfer

The field of psychology addresses the scientific study of behavior and mental processes of humans and animals. Learning more about human behavior through scientific research methods is the focus of many psychologists, while other psychologists apply principles of psychology in areas such as psychotherapy, applied behavioral analysis, and industrial/organizational psychology.

This psychology program offers a comprehensive view of psychology by offering a variety of courses that will support transfer in psychology, while providing a foundational understanding of the discipline of psychology, the methods psychologists use to learn about behavior, and applications of psychological information to the world around us.

**Complete the following required 13 units:**

| Course   |      |  | Units       |
|--|------|--|-------------|
| Intro to Psychobiology<br>or<br>Intro to Statistics<br>or<br>Psychobiology | PSYC | A100<br>A100H<br>A160<br>A160H<br>A250 | 3<br>3<br>3 |
| Intro to Experimental Psychology   | PSYC | A280                                   | 4           |

**Complete 3 units, choosing from the courses below:**

|                                   |      |      |   |
|-----------------------------------|------|------|---|
| Lifespan Developmental Psychology | PSYC | A130 | 3 |
| Principles of Behavior            | PSYC | A185 | 3 |
| Social Psychology                 | PSYC | A260 | 3 |

**Complete 3 units, by choosing from a course not yet chosen from the above category or by choosing from the courses below:**

|                           |      |      |   |
|---------------------------|------|------|---|
| Psychology of Personality | PSYC | A220 | 3 |
| Abnormal Psychology       | PSYC | A255 | 3 |
| Psychology of Learning    | PSYC | A270 | 3 |

**Total Major Units: 19**

**Total Major Units: 18**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

### Associate in Arts in Sociology for Transfer degree

The Sociology program provides students with a core curriculum that instills the knowledge, skills, and practices of sociological content, theory, and methodology. In addition to helping students meet general education and core requirements for transfer to an upper-level Sociology program or to fulfill co-curricular requirements for other disciplines, the courses are also designed to help students understand the structure, processes, and functions of society, the key theoretical approaches and insights that inform sociology, and the role of social theory and research methods in understanding society. Further, the program seeks to foster critical and systemic thinking and increase self-knowledge and awareness of the diversity of the human condition. There are two Associate in Arts degrees offered to meet various student needs: The Associate in Arts degree (Option 1) or the Associate in Arts for Transfer (AA-T). The Sociology AA-T is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

**Complete the following required 9 units:**

| Course                    |      |               | Units |
|---------------------------|------|---------------|-------|
| Intro to Sociology        | Soc  | A100/H        | 3     |
| Intro to Statistics       | PSYC | A160/<br>A160 | 3     |
| Intro to Research Methods | Soc  | A200          | 3     |

**Complete 6 units, choosing from the courses below:**

|                              |              |        |   |
|------------------------------|--------------|--------|---|
| Intro to Marriage and Family | Soc          | A110   | 3 |
| Multicultural Behavior       | Anth/<br>Soc | A150   | 3 |
| Analysis of Social Problems  | Soc          | A185/H | 3 |
| Intro to Gender Studies      | Gndr         | A100   | 3 |

**Complete 3 units, by choosing from a course not yet chosen from the above category or by choosing from the courses below:**

|                                    |           |        |   |
|------------------------------------|-----------|--------|---|
| Cultural Anthropology              | Anth      | A100/H | 3 |
| Anthropology of Nonverbal Behavior | Anth/Soc  | A105   | 3 |
| Contemporary Ethnic America        | ETHS      | A100   | 3 |
| The Ethnic Family                  | Eths/Soc  | A190   | 3 |
| Women, Politics, and Inequality    | Gndr      | A130   | 3 |
| Men, Women, and Communication      | Gndr/Cmst | A165   | 3 |

**Total Major Units: 18**

**Total Major Units: 18**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

### Associate in Science in Early Childhood Education for Transfer degree

The Mission of this program is to grant students an AS-T degree in Early Childhood Education with 24 units in the major and prepares students to transfer to a CSU. This degree gives students priority admission to a local CSU campus, in a similar major, with junior status. Students are encouraged to also complete additional units to earn an ECE Certificate of Achievement.

**Complete the following required 9 units:**

| Course  | Units     |   |
|---|-----------|---|
| Child Growth & Development                    | HMDV A180 | 3 |
| Family, School, Community                     | HMDV A190 | 3 |
| Principles/ Practices Teaching Young Children | EC A155   | 3 |
| Preschool Programs: The Curriculum            | EC A200   | 3 |
| Observing/Recording Child Behavior            | EC A165   | 3 |
| Early Childhood Field Experience              | EC A201   | 3 |
| Teaching in a Diverse Society                 | EC A126   | 3 |
| Health, Safety, & Nutrition                   | EC A127   | 3 |

**Total Major Units: 24**

**Total Major Units: 18**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

## 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.

### 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.

### UC Davis - Transfer Admission Guarantee (TAG)

The UC Davis Transfer Admission Guarantee guarantees admission to UC Davis for students completing all program requirements. TAG students receive priority admission to UC Davis. The TAG 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 course work.

### UC Irvine - Transfer Admission Guarantee (TAG)

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

### UCLA - Transfer Alliance Program (TAP)

The Transfer Alliance Program with UCLA gives students priority consideration for admission to UCLA's College of Letters and Science (except for the Communications Studies major). 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 athletic events on the UCLA campus. Students wishing to participate in the program must first be accepted into the OCC Honors Program.

### UC Merced - Transfer Admission Guarantee (TAG)

UC Merced offers students who have completed all of their coursework at a California community college the opportunity to have guaranteed admission into their major at UC Merced. For more information please visit the Transfer Center.

### UC Riverside - Transfer Admission Guarantee (TAG)

Students participating in the Transfer Admission Guarantee with UC Riverside are guaranteed admission. Students who want to participate in this program must visit the UCR website for more details. UCR also has an honors transfer program called the Honors Alliance for Riverside Transfers (HART). Participants in HART must first apply and be accepted into the OCC Honors Program.

### UC San Diego - Transfer Admission Agreement (TAG)

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

### UC Santa Barbara - Transfer Admission Guarantee (TAG)

UCSB has established a Transfer Admission Guarantee which guarantees admission for fall terms. The TAG includes most majors in both the College of Letters and Science and the College of Engineering. To see if they qualify, students must make an appointment in the OCC Transfer Center.

### UC Santa Cruz - Transfer Admission Guarantee (TAG)

UCSC's Transfer Admission Guarantee provides students with the opportunity to have their academic records reviewed in advance of the regular application process. Those who are approved for TAG know their admission to UCSC is guaranteed for the following fall. They won't have to wait until spring to learn their admission decision.

### **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 General Education 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 General Education 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 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.

### **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.

## **Academic, Career & Certificate Programs**

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

Majors leading to technical competence in a variety of career and technical education programs 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.

| <b>Academic &amp; Career Program</b>                                  | <b>Certificate of Achievement</b> | <b>Certificate of Specialization</b> | <b>AA Degree Major</b> | <b>AS Degree Major</b> | <b>Page #</b> |
|---|-----------------------------------|--------------------------------------|------------------------|------------------------|---------------|
| <b>Accounting</b>   |                                   |                                      |                        |                        | 60            |
| Accounting  | ✓                                 |                                      |                        | ✓                      | 60            |
| Accounting Technician   |                                   | ✓                                    |                        |                        | 60            |
| Entry-Level Accounting  |                                   | ✓                                    |                        |                        | 61            |
| Full Charge Bookkeeper  |                                   | ✓                                    |                        |                        | 61            |
| <b>Airline Travel Careers - See Hospitality, Travel &amp; Tourism</b> |                                   |                                      |                        |                        | 87            |
| <b>Architectural Technology</b>                                       |                                   |                                      |                        |                        | 108           |
| Architectural Design 1  | ✓                                 |                                      |                        | ✓                      | 108           |
| Architectural Design 2  | ✓                                 |                                      |                        | ✓                      | 108           |
| Design/Build  | ✓                                 |                                      |                        |                        | 109           |
| Digital Fabrication for Architecture                                  | ✓                                 |                                      |                        |                        | 109           |
| Integrated Project Design   | ✓                                 |                                      |                        |                        | 109           |
| Sustainable Design  | ✓                                 |                                      |                        |                        | 110           |
| <b>Aviation Maintenance Technology</b>                                |                                   |                                      |                        |                        | 110           |
| Airframe  | ✓                                 |                                      |                        | ✓                      | 110           |
| Powerplant  | ✓                                 |                                      |                        | ✓                      | 111           |
| Airframe and Powerplant   | ✓                                 |                                      |                        | ✓                      | 111           |
| Avionics  |                                   | ✓                                    |                        |                        | 112           |
| Helicopter Theory and Maintenance                                     |                                   | ✓                                    |                        |                        | 112           |
| <b>Aviation Pilot Training</b>  |                                   |                                      |                        |                        | 112           |
| Aviation Pilot Training   | ✓                                 |                                      |                        | ✓                      | 113           |
| Commercial Pilot  |                                   | ✓                                    |                        |                        | 114           |
| Instrumental Pilot  |                                   | ✓                                    |                        |                        | 114           |
| Private Pilot   |                                   | ✓                                    |                        |                        | 113           |
| Turbine Transition  |                                   | ✓                                    |                        |                        | 113           |
| <b>Business</b>   |                                   |                                      |                        |                        | 61            |
| Business Administration   | ✓                                 |                                      |                        | ✓                      | 61            |
| Entrepreneurship  |                                   | ✓                                    |                        |                        | 62            |
| Finance   |                                   | ✓                                    |                        |                        | 62            |
| <b>Cardiovascular Technology</b>                                      |                                   |                                      |                        |                        | 72            |
| Electrocardiography Technician  | ✓                                 |                                      |                        |                        | 72            |
| Echocardiography & Vascular Ultrasound                                |                                   |                                      |                        | ✓                      | 73            |
| <b>Commercial Art</b>   |                                   |                                      |                        |                        | 124           |
| Narrative Illustration (revised 8-23-12)                              | ✓                                 |                                      | ✓                      |                        | 124           |
| <b>Computer Information Systems</b>                                   |                                   |                                      |                        |                        | 62            |
| Business Application Development                                      | ✓                                 |                                      |                        | ✓                      | 62            |
| Computer Programming  | ✓                                 |                                      |                        | ✓                      | 63            |
| C++ Programming   |                                   | ✓                                    |                        |                        | 66            |
| Information & Communications Technologies                             |                                   | ✓                                    |                        |                        | 64            |
| Database Administration Professional (Oracle)                         |                                   | ✓                                    |                        |                        | 66            |
| Database Developer Professional (Oracle)                              |                                   | ✓                                    |                        |                        | 66            |
| Computer Information Systems  | ✓                                 |                                      |                        | ✓                      | 64            |
| Enterprise Routing  |                                   | ✓                                    |                        |                        | 65            |
| Network Administration - Linux  |                                   | ✓                                    |                        |                        | 66            |
| Network Administration - Windows                                      |                                   | ✓                                    |                        |                        | 65            |
| Network Infrastructure  |                                   | ✓                                    |                        |                        | 64            |
| Network Professional  |                                   | ✓                                    |                        |                        | 65            |

| <b>Academic &amp; Career Program</b>                   | <b>Certificate of Achievement</b> | <b>Certificate of Specialization</b> | <b>AA Degree Major</b> | <b>AS Degree Major</b> | <b>Page #</b> |
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| Network Security                                       |                                   | ✓                                    |                        |                        | 65            |
| Network Services & Applications                        |                                   | ✓                                    |                        |                        | 65            |
| Network Technician                                     |                                   | ✓                                    |                        |                        | 64            |
| Virtualization & Cloud Computing                       |                                   | ✓                                    |                        |                        | 65            |
| Office Applications                                    |                                   | ✓                                    |                        |                        | 67            |
| Web Design   |                                   | ✓                                    |                        |                        | 67            |
| <b>Construction Technology</b>                         |                                   |                                      |                        |                        | 114           |
| Construction Technology                                | ✓                                 |                                      |                        | ✓                      | 114           |
| Residential Construction Development (revised 9-28-12) | ✓                                 |                                      |                        | ✓                      | 115           |
| Master Construction Specialist (revised 9-28-12)       | ✓                                 |                                      |                        | ✓                      | 116           |
| Residential Electrical                                 |                                   | ✓                                    |                        |                        | 115           |
| Concrete and Masonry (revised 9-28-12)                 |                                   | ✓                                    |                        |                        | 116           |
| Plumbing   |                                   | ✓                                    |                        |                        | 116           |
| <b>Costume Careers</b>                                 |                                   |                                      |                        |                        | 125           |
| Costume Technician                                     | ✓                                 |                                      |                        |                        | 125           |
| <b>Culinary Arts</b>                                   |                                   |                                      |                        |                        | 73            |
| Culinary Arts - Basic                                  | ✓                                 |                                      |                        |                        | 73            |
| Advanced Culinary Arts (revised 9-28-12)               | ✓                                 |                                      |                        | ✓                      | 73            |
| Baking and Pastry - Basic                              |                                   | ✓                                    |                        |                        | 74            |
| Advanced Baking and Pastry                             | ✓                                 |                                      |                        |                        | 74            |
| <b>Culinology® &amp; Food Science</b>                  |                                   |                                      |                        |                        | 75            |
| Culinary Food Science Assistant - Level I              | ✓                                 |                                      |                        |                        | 75            |
| Culinology® - Level II Professional Level              | ✓                                 |                                      |                        | ✓                      | 75            |
| <b>Dance</b>   |                                   |                                      |                        |                        | 125           |
| Dance Instructor                                       | ✓                                 |                                      | ✓                      |                        | 125           |
| World Dance  | ✓                                 |                                      | ✓                      |                        | 126           |
| Pilates/Dance Conditioning Instructor                  |                                   | ✓                                    |                        |                        | 127           |
| <b>Dental Assisting, Registered</b>                    |                                   |                                      |                        |                        | 76            |
| Dental Assisting, Registered                           | ✓                                 |                                      |                        | ✓                      | 76            |
| <b>Diagnostic Medical Sonography</b>                   |                                   |                                      |                        |                        | 77            |
| Diagnostic Medical Sonography                          |                                   |                                      |                        | ✓                      | 77            |
| <b>Dietetics</b>                                       |                                   |                                      |                        |                        | 77            |
| Dietetic Technician                                    |                                   |                                      |                        | ✓                      | 77            |
| <b>Digital Media Arts and Design</b>                   |                                   |                                      |                        |                        | 128           |
| Digital Graphics Production                            | ✓                                 |                                      |                        | ✓                      | 128           |
| Graphics Design  | ✓                                 |                                      | ✓                      | ✓                      | 128           |
| Multimedia   | ✓                                 |                                      | ✓                      | ✓                      | 129           |
| <b>Display &amp; Visual Presentation</b>               |                                   |                                      |                        |                        | 82            |
| Display & Visual Presentation                          | ✓                                 |                                      |                        | ✓                      | 82            |
| <b>Early Childhood Education</b>                       |                                   |                                      |                        |                        | 78            |
| Infant & Toddler Teacher                               | ✓                                 |                                      |                        | ✓                      | 78            |
| Preschool Teacher                                      | ✓                                 |                                      |                        | ✓                      | 79            |
| Early Intervention Aide                                | ✓                                 |                                      |                        | ✓                      | 79            |
| Early Childhood Administration                         | ✓                                 |                                      |                        | ✓                      | 79            |
| Elementary Teacher/Aide                                | ✓                                 |                                      |                        | ✓                      | 80            |
| Family Childcare Provider                              |                                   | ✓                                    |                        |                        | 80            |
| School-Age Child Care                                  |                                   | ✓                                    |                        |                        | 80            |

| <b>Academic &amp; Career Program</b>                                | <b>Certificate of Achievement</b> | <b>Certificate of Specialization</b> | <b>AA Degree Major</b> | <b>AS Degree Major</b> | <b>Page #</b> |
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| <b>Electronics Technology</b>                                       |                                   |                                      |                        |                        | 117           |
| Electro-Mechanical Technician                                       |                                   | ✓                                    |                        |                        | 117           |
| Electronics Engineering Technician (revised 8-23-12)                | ✓                                 |                                      |                        | ✓                      | 118           |
| Electronic Reliability Technician                                   | ✓                                 |                                      |                        |                        | 117           |
| Industrial Automation Technician (revised 8-23-12)                  | ✓                                 |                                      |                        |                        | 118           |
| <b>Emergency Medical Services</b>                                   |                                   |                                      |                        |                        | 81            |
| Emergency Medical Services  |                                   | ✓                                    |                        |                        | 81            |
| <b>Entertainment Technology</b>                                     |                                   |                                      |                        |                        | 129           |
| Scenic Artist   | ✓                                 |                                      |                        |                        | 130           |
| Scenic Carpenter  | ✓                                 |                                      |                        |                        | 130           |
| Lighting Technician   | ✓                                 |                                      |                        |                        | 130           |
| <b>Family and Consumer Sciences</b>                                 |                                   |                                      |                        |                        | 81            |
| Family and Consumer Sciences  |                                   |                                      |                        | ✓                      | 82            |
| <b>Fashion</b>  |                                   |                                      |                        |                        | 82            |
| Design  | ✓                                 |                                      |                        | ✓                      | 82            |
| Production/Product Development                                      | ✓                                 |                                      |                        | ✓                      | 83            |
| Apparel Construction  | ✓                                 |                                      |                        | ✓                      | 83            |
| Fashion Merchandising   | ✓                                 |                                      |                        | ✓                      | 83            |
| Industrial Sewing   |                                   | ✓                                    |                        |                        | 84            |
| <b>Film/Video</b>   |                                   |                                      |                        |                        | 130           |
| Film/Video  | ✓                                 |                                      | ✓                      |                        | 130           |
| <b>Fitness Specialist</b>   |                                   |                                      |                        |                        | 101           |
| Fitness Specialist  | ✓                                 |                                      |                        | ✓                      | 101           |
| <b>Food Science (See Culinary®)</b>                                 |                                   |                                      |                        |                        | 84            |
| <b>Food Service Management Commercial (Restaurant &amp; Hotels)</b> |                                   |                                      |                        |                        | 84            |
| Restaurant  |                                   |                                      |                        | ✓                      | 84            |
| Restaurant Supervision  | ✓                                 |                                      |                        |                        | 84            |
| Catering  | ✓                                 |                                      |                        |                        | 85            |
| Quick Service   |                                   | ✓                                    |                        |                        | 85            |
| <b>Food Service Management Institutional</b>                        |                                   |                                      |                        |                        | 85            |
| Dietetic Service Supervisor   | ✓                                 |                                      |                        |                        | 85            |
| Dietetic Service Manager  | ✓                                 |                                      |                        |                        | 86            |
| Dietetic Technician-Management Healthcare                           |                                   |                                      |                        | ✓                      | 86            |
| <b>Heating, Ventilation, Air Conditioning &amp; Refrigeration</b>   |                                   |                                      |                        |                        | 118           |
| HVACR Technology  | ✓                                 |                                      |                        | ✓                      | 118           |
| <b>Hospitality, Travel &amp; Tourism Airline and Travel Careers</b> |                                   |                                      |                        |                        | 86            |
| Airline Travel Careers  | ✓                                 |                                      |                        | ✓                      | 87            |
| Corporate/Contract Flight Attendant                                 | ✓                                 |                                      |                        | ✓                      | 87            |
| <b>Hotel Management</b>   |                                   |                                      |                        |                        | 88            |
| Front Office Specialist   | ✓                                 |                                      |                        |                        | 88            |
| Human Resource Management   | ✓                                 |                                      |                        |                        | 88            |
| Sales and Marketing Specialist                                      | ✓                                 |                                      |                        |                        | 88            |
| Room Operations Specialist  |                                   |                                      |                        | ✓                      | 89            |
| Meeting and Event Management  | ✓                                 |                                      |                        |                        | 89            |
| <b>Spa Management</b>   |                                   |                                      |                        |                        | 90            |
| Spa Management  | ✓                                 |                                      |                        |                        | 90            |

| <b>Academic &amp; Career Program</b>                       | <b>Certificate of Achievement</b> | <b>Certificate of Specialization</b> | <b>AA Degree Major</b> | <b>AS Degree Major</b> | <b>Page #</b> |
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| <b>Travel and Tourism</b>                                  |                                   |                                      |                        |                        | 90            |
| Cruise Specialist  | ✓                                 |                                      |                        |                        | 90            |
| Tour Escorting and Management                              | ✓                                 |                                      |                        |                        | 91            |
| Destination Management                                     | ✓                                 |                                      |                        |                        | 91            |
| Travel Agency Specialist                                   | ✓                                 |                                      |                        |                        | 91            |
| Travel and Tourism   |                                   |                                      |                        | ✓                      | 91            |
| <b>Interior Design</b>                                     |                                   |                                      |                        |                        | 92            |
| Interior Merchandising - Level I (revised 8-23-12)         | ✓                                 |                                      |                        |                        | 92            |
| Interior Design Assistant - Level II (revised 8-23-12)     |                                   |                                      |                        | ✓                      | 93            |
| Interior Design - Professional Level III (revised 8-23-12) | ✓                                 |                                      |                        |                        | 93            |
| Kitchen & Bath - Advanced                                  |                                   | ✓                                    |                        |                        | 93            |
| <b>Leadership Studies</b>                                  |                                   |                                      |                        |                        | 67            |
| Leadership Studies   |                                   | ✓                                    |                        |                        | 67            |
| <b>Manufacturing Technology</b>                            |                                   |                                      |                        |                        | 119           |
| Machinist  | ✓                                 |                                      |                        | ✓                      | 119           |
| CNC Machine Operator                                       | ✓                                 |                                      |                        | ✓                      | 119           |
| CNC Machine Programmer                                     | ✓                                 |                                      |                        | ✓                      | 120           |
| Tooling  | ✓                                 |                                      |                        | ✓                      | 120           |
| CNC Operator   |                                   | ✓                                    |                        |                        | 120           |
| CNC Programmer   |                                   | ✓                                    |                        |                        | 120           |
| <b>Management</b>  |                                   |                                      |                        |                        | 68            |
| Management and Leadership Studies                          | ✓                                 |                                      |                        | ✓                      | 68            |
| Retail   | ✓                                 |                                      |                        | ✓                      | 68            |
| Management Institute                                       |                                   | ✓                                    |                        |                        | 69            |
| <b>Marketing (Merchandising)</b>                           |                                   |                                      |                        |                        | 69            |
| Advertising (revised 9-28-12)                              |                                   | ✓                                    |                        |                        | 70            |
| International Business                                     | ✓                                 | ✓                                    |                        | ✓                      | 70            |
| General Marketing  | ✓                                 |                                      |                        | ✓                      | 69            |
| Entry Level Marketing                                      |                                   | ✓                                    |                        |                        | 70            |
| Sales (revised 9-28-12)                                    |                                   | ✓                                    |                        |                        |               |
| <b>Medical Assisting</b>                                   |                                   |                                      |                        |                        | 94            |
| CMA Eligible Program                                       | ✓                                 |                                      |                        | ✓                      | 95            |
| <b>Mental Health Worker</b>                                |                                   |                                      |                        |                        | 106           |
| Mental Health Worker                                       | ✓                                 |                                      |                        | ✓                      | 106           |
| <b>Music</b>   |                                   |                                      |                        |                        | 131           |
| Business Employee  | ✓                                 |                                      |                        | ✓                      | 131           |
| MIDI Applications  | ✓                                 |                                      |                        | ✓                      | 132           |
| Musical Entertainer—Instrumental                           | ✓                                 |                                      |                        | ✓                      | 132           |
| Musical Entertainer—Vocal                                  | ✓                                 |                                      |                        | ✓                      | 133           |
| Studio Guitar Performer                                    | ✓                                 |                                      |                        | ✓                      | 133           |
| <b>Neurodiagnostic Technology</b>                          |                                   |                                      |                        |                        | 94            |
| Neurodiagnostic Technology                                 |                                   |                                      |                        | ✓                      | 94            |
| NDT Upgrade  |                                   | ✓                                    |                        |                        | 95            |

| <b>Academic &amp; Career Program</b>  | <b>Certificate of Achievement</b> | <b>Certificate of Specialization</b> | <b>AA Degree Major</b> | <b>AS Degree Major</b> | <b>Page #</b> |
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| <b>Nutrition Careers</b>  |                                   |                                      |                        |                        | 95            |
| Community Nutrition Assistant   | ✓                                 |                                      |                        | ✓                      | 96            |
| Nutrition Education   | ✓                                 |                                      |                        | ✓                      | 96            |
| Nutrition and Fitness Education   | ✓                                 |                                      |                        |                        | 96            |
| <b>Ornamental Horticulture</b>  |                                   |                                      |                        |                        | 103           |
| Ornamental Horticulture   | ✓                                 |                                      |                        | ✓                      | 103           |
| <b>Photography</b>  |                                   |                                      |                        |                        | 134           |
| Digital Technician  | ✓                                 |                                      |                        |                        | 134           |
| Photography, Still  | ✓                                 |                                      | ✓                      |                        | 134           |
| <b>Polysomnographic Technology</b>  |                                   |                                      |                        |                        | 97            |
| Polysomnographic Technology   |                                   |                                      |                        | ✓                      | 97            |
| Neurodiagnostic Technology Option   |                                   |                                      |                        | ✓                      | 98            |
| Respiratory Care Option   |                                   |                                      |                        | ✓                      | 98            |
| <b>Professional Mariner</b>   |                                   |                                      |                        |                        | 102           |
| Professional Mariner - Level 1  | ✓                                 |                                      |                        |                        | 102           |
| <b>Radiologic Technology (Diagnostic)</b>   |                                   |                                      |                        |                        | 98            |
| Radiologic Technology (Diagnostic)  |                                   |                                      |                        | ✓                      | 98            |
| <b>Real Estate</b>  |                                   |                                      |                        |                        | 71            |
| Broker  | ✓                                 |                                      | ✓                      | ✓                      | 71            |
| Salesperson   |                                   | ✓                                    |                        |                        | 71            |
| <b>Religious Studies</b>  |                                   |                                      |                        |                        | 107           |
| Religious Studies   |                                   | ✓                                    |                        |                        | 107           |
| <b>Respiratory Care</b>   |                                   |                                      |                        |                        | 99            |
| Respiratory Care  |                                   |                                      |                        | ✓                      | 99            |
| <b>Spa Management see Hospitality, Travel &amp; Tourism</b>                                 |                                   |                                      |                        |                        | 86            |
| <b>Speech-Language Pathology Assistant</b>  |                                   |                                      |                        |                        | 100           |
| Speech Language Pathology Assistant   |                                   |                                      |                        | ✓                      | 100           |
| <b>Travel and Tourism see Hospitality, Travel &amp; Tourism</b>                             |                                   |                                      |                        |                        | 86            |
| <b>Welding Technology</b>   |                                   |                                      |                        |                        | 121           |
| Welding   | ✓                                 |                                      |                        | ✓                      | 121           |
| Basic Welding (SMAW)  |                                   | ✓                                    |                        |                        | 122           |
| Intermediate Welding (SMAW)   |                                   | ✓                                    |                        |                        | 122           |
| Advanced Welding (FCAW)   |                                   | ✓                                    |                        |                        | 122           |
| Advanced II Welding (FCAW)  |                                   | ✓                                    |                        |                        | 123           |
| Gas Tungsten Arc Welding (GTAW)   |                                   | ✓                                    |                        |                        | 123           |
| Gas Metal Arc Welding (GMAW)  |                                   | ✓                                    |                        |                        | 123           |
| Pipe  |                                   | ✓                                    |                        |                        | 124           |
| <b>Transfer Major Degrees to CSU - Please refer to the Transfer Section of this catalog</b> |                                   |                                      |                        |                        |               |
| Associate in Arts in Communication Studies ( <a href="#">revised 9-28-12</a> )              |                                   |                                      |                        |                        | 104           |
| Associate in Arts in Political Science (Pending Chancellor's Office approval)               |                                   |                                      |                        |                        | 105           |
| Associate in Arts in Psychology   |                                   |                                      |                        |                        | 105           |
| Associate in Arts in Sociology  |                                   |                                      |                        |                        | 107           |
| Associate in Science in Early Childhood Education   |                                   |                                      |                        |                        | 78            |
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# ACADEMIC, CAREER & CERTIFICATE PROGRAMS INDEX

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# BUSINESS, COMPUTING & CAREER SERVICES DIVISION

## 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

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.

#### Required Courses

| Course   |            |               | Units     |
|--|------------|---------------|-----------|
| <b>FIRST SEMESTER</b>                                      |            |               |           |
| Financial Accounting                                       | ACCT       | A101          | 4         |
| Introduction to Business<br>OR                             | BUS        | A100          | 3         |
| Honors Intro to Business<br>Intro to Info Sys & Appl<br>OR | BUS<br>CIS | A100H<br>A100 | 3         |
| Intro to Computer Information Systems                      | CIS        | A111          |           |
| <b>SECOND SEMESTER</b>                                     |            |               |           |
| Managerial Accounting                                      | ACCT       | A102          | 4         |
| Accounting Info Sys 1                                      | ACCT       | A110          | 3         |
| <b>THIRD SEMESTER</b>                                      |            |               |           |
| Accounting with QuickBooks                                 | ACCT       | A112          | 2         |
| Intermediate Accounting                                    | ACCT       | A211          | 4         |
| Business Communication                                     | BUS        | A139          | 3         |
| <b>FOURTH SEMESTER</b>                                     |            |               |           |
| Federal Income Tax   | ACCT       | A111          | 3         |
| Cost Accounting  | ACCT       | A210          | 3         |
| <b>Total:</b>  |            |               | <b>32</b> |

#### 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 & Supervsn  | MGMT | A115 | 3 |

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and 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.

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

### CERTIFICATE OF SPECIALIZATION

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<br>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            |
| <b>Total:</b>                       |      |      | <b>15-16</b> |

## ENTRY-LEVEL ACCOUNTING

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

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

### CERTIFICATE OF SPECIALIZATION

#### Program Outcomes

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

1. Demonstrate knowledge of an accounting process by performing appropriate accounting functions manually or by utilizing G/L software.
2. 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         |
| <b>Total:</b>         |      |      | <b>11</b> |

## 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.

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

### 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.
1. 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 | ACCT | A100 | 3            |
| OR                            |      |      |              |
| 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            |
| <b>Total:</b>                 |      |      | <b>14-15</b> |

## BUSINESS

### BUSINESS ADMINISTRATION

The Business Administration program is designed to provide the opportunity for the transfer business major to achieve an 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:

1. Function effectively in entry-level business positions or at a four-year college business program using the skills, principles, and tools they have acquired.
2. Effectively apply and utilize the business principles and techniques they have learned in a business environment or at a four-year college business program.
3. Demonstrate effective written and/or oral skills.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                              |      |       | Units        |
|-------------------------------------|------|-------|--------------|
| Financial Accounting                | ACCT | A101  | 4            |
| Managerial Accounting               | ACCT | A102  | 4            |
| Introduction 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 | A175  | 3            |
| Microeconomics                      | ECON | A170  | 3            |
| Intro to Statistics                 | MATH | A160  | 3            |
| OR                                  |      |       |              |
| Honors Intro to Statistics          | MATH | A160H | 3            |
| OR                                  |      |       |              |
| Statistics for Behavioral Sci (And) | PSYC | A160  | 3            |
| Calculus for Biol Mgmt & Soc. Sci   | MATH | A140  | 4            |
| OR                                  |      |       |              |
| Calculus 1                          | MATH | A180  | 4            |
| OR                                  |      |       |              |
| Honors Calculus 1                   | MATH | A180H | 4            |
| OR                                  |      |       |              |
| Honors Calculus 1 and 2             | MATH | A182H | 5            |
| <b>Total:</b>                       |      |       | <b>33-34</b> |

*Continued on next page*

**Suggested electives:**

|                              |      |      |   |
|------------------------------|------|------|---|
| Microcomputer Accounting     | ACCT | A110 | 3 |
| Business Finance             | BUS  | A200 | 3 |
| Critical Reasoning & Writing | 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         |
| Introduction to Entrepreneurship | BUS  | A240 | 3         |
| Introduction to Marketing        | MKTG | A100 | 3         |
| Professional Selling             | MKTG | A110 | 3         |
| <b>Total:</b>                    |      |      | <b>15</b> |

### ASSOCIATE DEGREES

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

## FINANCE

The Certificate of Specialization of Finance is designed to develop analytic and critical thinking skills in the financial area in businesses. Courses emphasize financial accounting, securities, financial and investment management.

**Program Outcomes**

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

1. Function effectively in an entry-level or training position in a brokerage firm or the Treasurer or Investment Department in a small to mid-size enterprise.
2. Effectively apply and utilize the accounting and financial principles and techniques they have learned in a business environment or at a four- year college business administration program.
3. Determine the viability of security and capital investments.

### CERTIFICATE OF SPECIALIZATION

**Required Courses**

| Course                          |      |      | Units     |
|---------------------------------|------|------|-----------|
| Financial Accounting            | ACCT | A101 | 4         |
| Business Finance                | BUS  | A200 | 3         |
| Securities Investment           | BUS  | A210 | 3         |
| Practical Investment Management | BUS  | A212 | 3         |
| <b>Total:</b>                   |      |      | <b>13</b> |

## 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 Outcomes**

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 | A155  |           |
| OR                             |      |       |           |
| Calculus 1                     | MATH | A180  |           |
| OR                             |      |       |           |
| Honors Calculus 1              | MATH | A180H | 4         |
| OR                             |      |       |           |
| Calculus for BMSS              | MATH | A140  |           |
| <b>Total:</b>                  |      |       | <b>15</b> |

\*Courses 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

| Course                   |    |      | Units |
|--------------------------|----|------|-------|
| Computer Architecture    | CS | A116 | 4     |
| C++ Programming 1        | CS | A150 | 4     |
| Windows .NET Programming | CS | A152 | 4     |
| Data Structures          | CS | A200 | 4     |
| C++ Programming 2        | CS | A250 | 4     |
| Java Programming 2       | CS | A272 | 4     |

## WEB DEVELOPMENT

### Program Outcomes

Completion of this certificate, issued through the Business and Computing Division, will enable students to:

1. Apply for entry-level positions in designing for the World Wide Web.
2. Create dynamic Web pages.

| Course                       |     |      | Units |
|------------------------------|-----|------|-------|
| Intro to Web Page Design     | CIS | A123 | 2     |
| Intro to Dreamweaver MX      | CIS | A128 | 2     |
| Cascading Style Sheets (CSS) | CIS | A129 | 2     |
| Bus Multimedia/Graphics      | CIS | A132 | 2     |
| Flash Programming            | CIS | A141 | 3     |
| JavaScript 1                 | CIS | A171 | 2     |
| JavaScript 2                 | CIS | A223 | 2     |
| Digital Photo Premiere       | CIS | A232 | 3     |

## NETWORKING ENVIRONMENT

| Course                                       |         |      | Units |
|--|---------|------|-------|
| PC Concepts: Linux/Certification Preparation | CIS     | A106 | 4     |
| MS Windows                                   | CIS/BUS | A107 | 1     |
| PC Concepts A+Cert 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

| Course                           |     |      | Units |
|----------------------------------|-----|------|-------|
| 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 | 4     |
| Oracle Database Admin II         | CIS | A188 | 3     |

**Total: 33**

## ASSOCIATE DEGREES

Complete the Certificate of Achievement and the 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 Outcomes

Based on the recommendations of the Association for Computing Machinery, The Computer Programming Certificate prepares students 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 |
|-------------------------|----|------|-------|
| Computer Architecture   | CS | A116 | 4     |
| C++ Programming 1       | CS | A150 | 4     |
| Java Programming I      | CS | A171 | 4     |
| Data Structures         | CS | A200 | 4     |
| Software Engineering    | CS | A220 | 4     |
| C++ Programming 2       | CS | A250 | 4     |
| Theories of Computation | CS | A265 | 1     |

**Total: 25**

*Continued on next page*

**Mathematic Courses**

|   |      |         |                              |
|---|------|---------|------------------------------|
| Intro to Stats (or Honors Intro Stats)                  | MATH | A160(H) | 3                            |
| (And) Calculus 1 (or Honors Calculus 1)                 | MATH | A180(H) | 8                            |
| OR  |      |         |                              |
| Calculus 2 (or Honors Calculus 2)                       | MATH | A185(H) | 5                            |
| OR  |      |         |                              |
| Honors Calculus 1 and 2                                 | MATH | A182H   | 5                            |
| Intro to 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                            |
|   |      |         | <b>Subtotal</b> <b>16-21</b> |
|   |      |         | <b>Total:</b> <b>41-46</b>   |

**ASSOCIATE DEGREES**

Complete the Certificate of Achievement and the 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 Science degree but has not been articulated with any particular four-year institution. Students should not expect that they will necessarily meet the lower-division requirements at specific colleges or universities. Students should consult 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 Outcomes**

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                       |
| PASCAL Programming             | CS   | A115 | 4                       |
| OR                             |      |      |                         |
| Java Programming 1             | CS   | A170 | 4                       |
| Intro to C# .NET Programming   | CS   | A140 | 4                       |
| OR                             |      |      |                         |
| Intro to VB .NET Programming   | CS   | A142 | 4                       |
| Macroeconomics                 | ECON | A175 | 3                       |
| Microeconomics                 | ECON | A170 | 3                       |
| Calculus for BMSS              | MATH | A140 | 4                       |
| OR                             |      |      |                         |
| Calculus 1                     | MATH | A180 | 4                       |
|                                |      |      | <b>Total:</b> <b>32</b> |

**ASSOCIATE DEGREES**

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

**INFORMATION AND COMMUNICATIONS TECHNOLOGIES**

**CERTIFICATES OF SPECIALIZATION**

Completion of these certificates will enable students to acquire the skills 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 Network Technician Certificate of Specialization will be able to design and implement a converged network.

**NETWORK TECHNICIAN**

**Required Courses**

| Course                                    |     |      | Units                 |
|---|-----|------|-----------------------|
| PC Concepts: A+ Certification Preparation | CIS | A110 | 4                     |
| Fundamentals of Networking                | CIS | A191 | 4                     |
|   |     |      | <b>Total</b> <b>8</b> |

**Program Outcomes**

Students who receive the Network Infrastructure Certificate of Specialization will be able to design and implement a converged network.

**CERTIFICATE OF SPECIALIZATION**

**NETWORK INFRASTRUCTURE**

**Required Courses**

| Course                                      |     |      | Units                  |
|---|-----|------|------------------------|
| Networking Essentials (Cisco 1)             | CIS | A197 | 4                      |
| Routing and Router Configurations (Cisco 2) | CIS | A198 | 3                      |
| LAN Swiching (Cisco 3)                      | CIS | A267 | 3                      |
| Accessing the WAN (Cisco 4)                 | CIS | A268 | 3                      |
|   |     |      | <b>Total</b> <b>13</b> |

**Program Outcomes**

Students who receive the Enterprise Routing Certificate of Specialization will be able to design and implement a converged network.

**CERTIFICATES OF SPECIALIZATION**

## ENTERPRISE ROUTING

### Required Courses

| Course                                      |     |      | Units     |
|---|-----|------|-----------|
| Networking Essentials (Cisco 1)             | CIS | A197 | 4         |
| Routing and Router Configurations (Cisco 2) | CIS | A198 | 3         |
| Enterprise Router Configurations 1          | CIS | A265 | 3         |
| <b>Total</b>                                |     |      | <b>10</b> |

### Program Outcomes

Students who receive the Virtualization and Cloud Computing Certificate of Specialization will be able to design and implement a converged network.

### CERTIFICATE OF SPECIALIZATION

## VIRTUALIZATION AND CLOUD COMPUTING

### Required Courses

| Course   |     |      | Units     |
|--|-----|------|-----------|
| Information and Storage Management                                 | CIS | A280 | 3         |
| Cloud Infrastructure and Services                                  | CIS | A281 | 3         |
| Virtual Desktop: Installation, Configuration and Management        | CIS | A285 | 3         |
| Virtual Infrastructure: Installation, Configuration and Management | CIS | A286 | 3         |
| <b>Total</b>   |     |      | <b>12</b> |

### Program Outcomes

Students who receive the Network Security Certificate of Specialization will be able to design and implement a converged network.

### CERTIFICATE OF SPECIALIZATION

## NETWORK SECURITY

### Required Courses

| Course                               |     |      | Units    |
|--------------------------------------|-----|------|----------|
| Fundamentals of Information Security | CIS | A161 | 3        |
| Ethical Hacking and Network Defense  | CIS | A282 | 3        |
| <b>Total</b>                         |     |      | <b>6</b> |

### Program Outcomes

Students who receive the Network Services and Applications Certificate of Specialization will be able to design and implement a converged network.

### CERTIFICATES OF SPECIALIZATION

## NETWORK SERVICES AND APPLICATIONS

### Required Courses

| Course                              |     |      | Units    |
|-------------------------------------|-----|------|----------|
| Fundamentals of Wireless Networking | CIS | A261 | 3        |
| Fundamentals of Voice over IP       | CIS | A262 | 3        |
| Home Technology Integration         | CIS | A263 | 3        |
| <b>Total</b>                        |     |      | <b>9</b> |

### Program Outcomes

Students who receive the Network Professional Certificate of Specialization will be able to design and implement a converged network.

### CERTIFICATE OF SPECIALIZATION

## NETWORK PROFESSIONAL

In order to receive this Certificate of Specialization, students are required to have the Information and Communications Technologies: Network Technician Certificate of Specialization

### Required Courses

| Course  |      |      | Units    |
|---|------|------|----------|
| Small Office / Home Office Case Study 1                 | CIS  | A290 | 3        |
| Applied Management for Public and Private Organizations | MGMT | A100 | 3        |
| Interpersonal Communication                             | MCST | A100 | 3        |
| <b>Total</b>  |      |      | <b>9</b> |

### CERTIFICATE OF SPECIALIZATION

## NETWORK ADMINISTRATION - WINDOWS

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 tests from CompTIA and Microsoft.

### Program Outcomes

Students who complete the Network Administration – Windows Certificate of Specialization will be capable of deploying, building, designing, optimizing, and operating a Windows Server and Desktop environment and they will be able to make the design and technology decisions necessary to ensure successful technology implementation projects.

*Continued on next page*

**Required Courses**

| Course                                     |     |      | Units     |
|--|-----|------|-----------|
| Windows Desktop Administration             | CIS | A163 | 3         |
| Network Directory Structure Administration | CIS | A194 | 3         |
| Network Infrastructure Administration      | CIS | A193 | 3         |
| Network Server Administration              | CIS | A192 | 3         |
| Network Enterprise Administration          | CIS | A196 | 3         |
| <b>Total</b>                               |     |      | <b>15</b> |

**CERTIFICATE OF SPECIALIZATION**

**LINUX**

**Program Outcomes**

Students who complete the Network Administration – Linux Certificate of Specialization will be capable of deploying, building, designing, optimizing, and operating a Linux environment and they will be able to make the design and technology decisions necessary to ensure successful technology implementation projects.

**Required Courses**

| Course                                       |     |      | Units    |
|--|-----|------|----------|
| Windows Desktop Administration               | CIS | A163 | 3        |
| Introduction to Linux                        | CIS | A109 | 2        |
| PC Concepts: Linux/Certification Preparation | CIS | A106 | 4        |
| <b>Total</b>                                 |     |      | <b>9</b> |

**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 Outcomes**

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

**CERTIFICATES OF SPECIALIZATION**

**Required Courses**

| Course            |    |      | Units     |
|-------------------|----|------|-----------|
| C++ Programming 1 | CS | A150 | 4         |
| Data Structures   | CS | A200 | 4         |
| C++ Programming 2 | CS | A250 | 4         |
| <b>Total:</b>     |    |      | <b>12</b> |

**DATABASE ADMINISTRATION (ORACLE)**

Completion of this certificate, issued through the Business and Computing Division, will enable students to acquire the skills needed for a career in Oracle database administration. In addition, this certificate provides preparation for students seeking Oracle's certification in Database Administration. To receive a certificate, students must complete at least 15 units of coursework with grade of "C" or better. All courses must be completed at Orange Coast College.

**Program Outcomes**

Students will be able to:

1. Design and develop a data Model.
2. Create, manage, backup and recover an Oracle database.
3. Monitor database performance using Oracle-supplied administration tools and SQL.

**CERTIFICATES OF SPECIALIZATION**

**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         |
| <b>And minimum of 4 units from the following optional courses:</b> |     |      |           |
| PC Concepts: Linux/Certification Preparation                       | CIS | A106 | 4         |
| Oracle SQL Programming   | CIS | A183 | 4         |
| Oracle PL/SQL Programming  | CIS | A184 | 3         |
| SQL Tuning   | CIS | A178 | 2         |
| PL/SQL II  | CIS | A179 | 2         |
| <b>Total:</b>  |     |      | <b>15</b> |

**DATABASE DEVELOPER (ORACLE)**

Completion of this certificate, issued through the Business and Computing Division, will enable students to acquire the skills needed to pursue a career in PL/SQL Oracle database environment. In addition, this certificate provides preparation for students seeking Oracle's PL/SQL or Forms Developer certification. To receive the certificate, students must complete at least 15 units of coursework with a grade of "C" or better. All courses must be completed at Orange Coast College.

**CERTIFICATES OF SPECIALIZATION**

**Program Outcomes**

Students will be able to:

1. Design and develop a data model.
2. Use SQL to retrieve data, manipulate and manage database objects.
3. 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:**

|                                  |     |      |   |
|----------------------------------|-----|------|---|
| 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 Outcomes

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

## CERTIFICATES OF SPECIALIZATION

### Required Courses

| Course                      |     |      | Units |
|-----------------------------|-----|------|-------|
| PC Concepts: A+Cert 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.

## CERTIFICATES OF SPECIALIZATION

### 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 |
|---------------------------------------|---------|------|-------|
| Beginning Computer Keyboarding 1      | CIS     | A090 | 1.5   |
| Beginning Computer Keyboarding 2      | CIS     | A092 | 1.5   |
| Introduction to Computer Applications | CIS     | A100 | 3     |
| Excel 1                               | CIS/BUS | A134 | 2     |

**Total: 8**

## WEB DESIGN

### CERTIFICATES OF SPECIALIZATION

#### Program Outcomes

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/Web Pgs | CIS | A129 | 2     |
| Bus Multimedia/Graphics        | CIS | A132 | 2     |
| Flash Programming              | CIS | A141 | 3     |
| JavaScript 1                   | CIS | A171 | 2     |
| JavaScript 2                   | CIS | A223 | 2     |

**Total: 10-11**

## 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:

1. Function effectively in a leadership role using the skills, principles, and tools they have acquired.
2. Apply the leadership principles they have learned in their personal and/or organizational lives.
3. Distinguish between the qualities of effective and ineffective leaders.

## CERTIFICATE OF SPECIALIZATION

*Continued on next page*

**Required Courses**

| Course                      |      |      | Units    |
|-----------------------------|------|------|----------|
| Interpersonal Communication | CMST | A100 | 3        |
| Personal Leadership         | LEAD | A180 | 3        |
| Organizational Leadership   | LEAD | A200 | 3        |
| <b>Total:</b>               |      |      | <b>9</b> |

**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:

1. Function effectively in a leadership or management role using the skills, principles, and tools they have acquired.
2. Apply the leadership and management principles they have learned in their personal and/or organizational lives.
3. Distinguish between the qualities of effective and ineffective leaders and managers.
4. Analyze the ethical dimensions of effective leaders and managers in everyday conduct and decision making.
5. Demonstrate effective written and/or oral skills.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                      |          |       | Units |
|-----------------------------|----------|-------|-------|
| <b>FALL</b>                 |          |       |       |
| Intro to Business           | BUS      | A100  | 3     |
| OR                          |          |       |       |
| Honors Intro to Bus         | BUS      | A100H | 3     |
| Intro to Info Sys & Appl    | CIS      | A100  |       |
| Interpersonal Communication | CMST     | A100  | 3     |
| Applied Management          | MGMT     | A100  | 3     |
| <b>SPRING</b>               |          |       |       |
| Business Communication      | BUS      | A139  | 3     |
| Personal Leadership         | LEAD     | A180  | 3     |
| Human Relations & Supervsn  | MGMT     | A115  | 3     |
| <b>FALL</b>                 |          |       |       |
| Organizational Leadership   | LEAD     | A200  | 3     |
| Professional Selling        | MKTG     | A110  |       |
| OR                          |          |       | 3     |
| Public Speaking             | CMST     | A110  |       |
| Professional Communication  | MGMT/BUS | A239  | 3     |

**SPRING**

|                  |     |      |           |
|------------------|-----|------|-----------|
| Business Law     | BUS | A110 | 3         |
| <b>Subtotal:</b> |     |      | <b>33</b> |

**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 |
| Electronic Portfolios (1.5)* | CIS       | A108 | 3 |
| Public Speaking              | CMST      | A110 | 3 |
| Intro to Marketing           | MKTG      | A100 | 3 |
| Professional Selling         | MKTG      | A110 | 3 |
| Ethics                       | PHIL/RLST | A120 | 3 |

**Total: 36**

\*Course must be taken twice.

**ASSOCIATE DEGREES**

Complete the Certificate of Achievement and the 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:

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

**CERTIFICATE OF ACHIEVEMENT**

### Required Courses

| Course                              |          |      | Units        |
|-------------------------------------|----------|------|--------------|
| Accounting-Small Business (3)<br>OR | ACCT     | A100 | 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 & Supervsn          | MGMT     | A115 | 3            |
| Intro to Marketing                  | MKTG     | A100 | 3            |
| Retail Store Management             | MKTG     | A200 | 3            |
| <b>Total:</b>                       |          |      | <b>30-31</b> |

#### 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 the 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. 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 & Supervsn<br>OR | MGMT     | A115 | 3        |
| Organizational Leadership        | LEAD     | A200 | 3        |
| Professional Communication       | BUS/MGMT | A239 |          |
| <b>Total:</b>                    |          |      | <b>9</b> |

## 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:

1. Function effectively in a multitude of first-entry marketing positions using the skills, tools and principles they have acquired.
2. Communicate effectively and persuasively in personal, organizational, and selling environments.
3. Effectively apply and utilize their acquired knowledge of the principles of marketing to market and/or promote a business, product, or service.

#### CORE CURRICULUM

##### Required Courses

| Course                     |          |       | Units     |
|----------------------------|----------|-------|-----------|
| Intro to Business<br>OR    | BUS      | A100  | 3         |
| Honors Intro to Business   | BUS      | A100H |           |
| 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         |
| <b>Total:</b>              |          |       | <b>18</b> |

**Students must complete core curriculum plus nine (9) units from the following list of courses in specialized areas.**

|                         |          |      |           |
|-------------------------|----------|------|-----------|
| Business Math           | BUS      | A125 | 3         |
| Business English        | BUS      | A138 | 3         |
| Public Relations        | BUS/CMST | A185 | 3         |
| Mass Communications     | CMST     | A180 | 3         |
| Direct Mail & Marketing | MKTG     | A142 | 1.5       |
| <b>Total:</b>           |          |      | <b>27</b> |

### ASSOCIATE DEGREES

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

*Continued on next page*

## INTERNATIONAL BUSINESS

### CERTIFICATE OF ACHIEVEMENT

#### Program Outcomes

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

1. Function effectively in an entrepreneurial, managerial, or entry-level international business position using the skills, tools and principles they have acquired.
2. 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         |
| Energy/Environment/Global Econ | BUS  | A119 | 3         |
| Introduction to Marketing      | MKTG | A100 | 3         |
| Professional Selling           | MKTG | A110 | 3         |
| International Marketing        | MKTG | A150 | 3         |
| Export/Import Procedures       | MKTG | A152 | 3         |
| <b>Subtotal:</b>               |      |      | <b>18</b> |

#### Select three (3) units from the following:

|                            |          |       |           |
|----------------------------|----------|-------|-----------|
| Intro to Business          | BUS      | A100  | 3         |
| OR                         |          |       |           |
| Honors Intro to Business   | BUS      | A100H | 3         |
| International Business Law | BUS      | A117  | 3         |
| Business Math              | BUS      | A125  | 3         |
| Professional Communication | BUS/MGMT | A239  | 3         |
| <b>Subtotal:</b>           |          |       | <b>3</b>  |
| <b>Total:</b>              |          |       | <b>21</b> |

### ASSOCIATE DEGREES

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

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

## ADVERTISING

*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 Advertising, graduates will be able to:

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

#### Required Courses

| Course                      |      |        | Units       |
|-----------------------------|------|--------|-------------|
| Principles of Advertising   | MKTG | A130   | 3           |
| Graphic Design              | DMAD | A182   | 4           |
| Or                          |      |        |             |
| Beginning Drawing/Honors    | ART  | A120/H | 3           |
| Mass Communications         | CMST | A180   | 3           |
| Or                          |      |        |             |
| Intro to Radio, TV and Film | FILM | A150   | 3           |
| <b>Total:</b>               |      |        | <b>9-10</b> |

## ENTRY LEVEL MARKETING

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

### CERTIFICATE OF 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    |
|---------------------------|------|------|----------|
| Introduction to Marketing | MKTG | A100 | 3        |
| Professional Selling      | MKTG | A110 | 3        |
| Principles of Advertising | MKTG | A130 | 3        |
| <b>Total:</b>             |      |      | <b>9</b> |

## INTERNATIONAL BUSINESS

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

#### Program Outcomes

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

1. 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:

1. Function effectively in entry-level international business positions using the skills, principles, and tools they have acquired.
2. 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         |
| <b>Total:</b>                |      |      | <b>12</b> |

## SALES

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

## CERTIFICATE OF SPECIALIZATION

### Program Outcomes

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

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

## Required Courses

| Course                       |           |      | Units    |
|------------------------------|-----------|------|----------|
| Professional Communication   | MKTG/CMST | A239 | 3        |
| Professional Selling         | MKTG      | A110 | 3        |
| Interpersonal Communications | CMST      | A100 | 3        |
| Or                           |           |      |          |
| Public Speaking              | CMST      | A110 | 3        |
| <b>Total:</b>                |           |      | <b>9</b> |

## 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:

1. Function effectively in an entry-level real estate position using the skills, principles, and tools they have acquired.
2. Communicate effectively in personal organizational and real estate environments.
3. Apply the real estate principles they have learned to effectively facilitate real estate transactions in a variety of settings.
4. 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 | 3-4          |
| OR                                |      |      |              |
| Financial Accounting (4)          | ACCT | A101 | 3            |
| Business Law                      | BUS  | A110 |              |
| Macroeconomics                    | ECON | A175 | 3            |
| OR                                |      |      |              |
| Microeconomics                    | ECON | A170 | 3            |
| Real Estate Principles            | RE   | A110 |              |
| 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            |
| <b>Total:</b>                     |      |      | <b>24-25</b> |

## ASSOCIATE DEGREES

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

## REAL ESTATE – SALESPERSON

This program is designed for those individuals interested in pursuing a career in real estate. Real Estate Salesperson license requirements: Real Estate 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:

1. Function effectively in an entry-level real estate position using the skills, principles, and tools they have acquired.
2. Apply the real estate principles they have learned to effectively facilitate real estate transactions in a variety of settings.

## CERTIFICATE OF SPECIALIZATION

## Required Courses

| Course                       |    |      | Units    |
|------------------------------|----|------|----------|
| Real Estate Principles       | RE | A110 | 3        |
| Real Estate Practice         | RE | A130 | 3        |
| Legal Aspects of Real Estate | RE | A120 | 3        |
| OR                           |    |      |          |
| Real Estate Appraisal        | RE | A140 | 3        |
| OR                           |    |      |          |
| Real Estate Finance          | RE | A150 |          |
| <b>Total:</b>                |    |      | <b>9</b> |

### Suggested electives:

|                               |      |      |   |
|-------------------------------|------|------|---|
| Accounting for Small Business | ACCT | A100 | 3 |
| Business Law                  | BUS  | A110 | 3 |
| Intro to Info Sys & Appl      | CIS  | A100 | 3 |
| Macroeconomics                | ECON | A175 | 3 |
| Microeconomics                | ECON | A170 | 3 |

# CONSUMER & HEALTH SCIENCES DIVISION

## CARDIOVASCULAR TECHNOLOGY

Cardiovascular technology is an allied health profession concerned with the diagnosis and treatment of patients with heart and blood vessel disease. The cardiovascular technologist performs tests at the request of a physician to obtain information about that patient's heart and blood vessel anatomy and function so the physician can make a diagnosis. The profession of cardiovascular technology includes three areas of diagnostic evaluation: 1) invasive cardiovascular technology (diagnosis of heart disease by cardiac catheterization), 2) noninvasive cardiovascular technology (diagnosis of heart disease by cardiac ultrasound, exercise, and electrocardiographic testing), and 3) noninvasive peripheral vascular study (diagnosis of blood vessel disease using ultrasound testing).

The Cardiovascular Technology program provides the necessary classroom and clinical courses to allow graduates to work as noninvasive cardiovascular technologists.

Specifically, the program objectives include:

1. Graduate qualified ECG technologists.
2. Graduate qualified noninvasive cardiovascular technologists who obtain RDCS within two years of completing the program and who are qualified in all noninvasive tests.
3. Provide an adequate number of graduates to meet the need for employees within the community.

During the first year of the program, students learn basic medical sciences and noninvasive cardiovascular tests including electrocardiography (ECG), exercise testing, Holter monitoring, pacemaker evaluation and continuous cardiac monitoring. Students may exit the program after the first year and obtain a Certificate of Achievement as an Electrocardiography Technician. With this certificate, graduates may obtain employment as an ECG technician, stress testing technician, Holter monitor technician, pacemaker technician and/or monitor (telemetry) technician.

Students wishing to complete the two-year program must complete the first year courses and Diagnostic Medical Sonography 150, and the general education for the Associate in Science degree. Graduates of the Noninvasive Cardiovascular Technology program option may obtain employment as a cardiovascular technologist performing all noninvasive tests, particularly cardiac ultrasound or echocardiography. Additionally, graduates may perform limited cerebrovascular ultrasound tests.

The Cardiovascular Technology program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

### Program Admission:

1. Allied Health A010 course – application and orientation.
2. The student must complete the General Education requirements for an Associate in Science Degree and the program prerequisites prior to acceptance to the program.

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

## ELECTROCARDIOGRAPHY TECHNICIAN

Employment possibilities include:

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

### Program Outcomes

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 |
| Medical Terminology | ALH  | A111 | 3  |
| Anatomy-Physiology  | BIOL | A221 | 4  |

### Required Courses

| Course                         |     |      | Units     |
|--------------------------------|-----|------|-----------|
| <b>FALL</b>                    |     |      |           |
| Patient Care                   | ALH | A115 | 2.5       |
| Intro to Electrocardiography   | CVT | A100 | 2         |
| Cardiac Anat & Pathophysiology | CVT | A160 | 3         |
| <b>SPRING</b>                  |     |      |           |
| Human Diseases                 | ALH | A120 | 2         |
| Intro to Invasive Cardiology   | CVT | A130 | 3         |
| Adv Electrocardiography        | CVT | A150 | 2         |
| ECG Clinical Experience        | CVT | A170 | 5         |
| <b>Total:</b>                  |     |      | <b>27</b> |

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

### Suggested elective:

|        |           |      |   |
|--------|-----------|------|---|
| Ethics | PHIL/RLST | A120 | 3 |
|--------|-----------|------|---|

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

## ECHOCARDIOGRAPHY AND VASCULAR ULTRASOUND

### ASSOCIATE IN SCIENCE DEGREE

Employment possibilities include:

**Noninvasive Cardiovascular Technologist**

**Echocardiographer/Echocardiography Technologist**

**Cerebrovascular Ultrasound Technologist**

#### Program Outcomes

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

**Subtotal: 27**

#### Required Courses

| Course                                    | Units        |
|---|--------------|
| <b>FALL</b>                               |              |
| 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 |
| <b>SPRING</b>                             |              |
| Adv Echocardiography                      | CVT A250 3   |
| Adv Echocardiography Lab                  | CVT A255 1   |
| Cerebrovascular Ultrasound and Peripheral | CVT A260 2.5 |
| Echocardiography Clin Lab 2               | CVT A265 6   |
| <b>Subtotal:</b>                          | <b>26.0</b>  |
| <b>Total:</b>                             | <b>53.0</b>  |

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

## CULINARY ARTS

### CULINARY ARTS- BASIC

The requirements for the Certificate of Achievement in Basic Culinary Arts provide students with the basics in the methods and chemistry of cooking, instruction and practice covering the fundamental techniques of cooking. Program elements include practical application of lecture theory in a commercial kitchen environment. Safe and proper use of culinary tools and equipment elements of professionalism and sanitary work habits are covered in detail throughout the program.

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.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                               | Units      |
|--------------------------------------|------------|
| <b>FIRST SEMESTER</b>                |            |
| Intro to Hospitality Industry        | CA A100 3  |
| *Intro to Nutrition Concepts         | FN A140 2  |
| Sanitation & Safety                  | FSM A160 3 |
| Dining Room Service                  | FSM A190 2 |
| Food Service Math/Accounting         | FSM A240 4 |
| <b>SECOND SEMESTER</b>               |            |
| Culinary Principles 1                | CA A120 3  |
| Principles of Baking 1               | CA A124 2  |
| Pantry                               | CA A149 2  |
| <b>THIRD SEMESTER</b>                |            |
| Culinary Principles 2                | CA A122 3  |
| Directed Practice in Culinary Arts 1 | CA A210 2  |
| Food Production Management           | FSM A151 2 |
| <b>Total:</b>                        | <b>28</b>  |

\*FN 170 can be substituted for FN 140

## ADVANCED CULINARY ARTS

This program is accredited by the American Culinary Federation Accrediting Commission.

The requirements for the Certificate of Achievement in Advanced Culinary Arts include coursework covering a solid foundational knowledge of the restaurant and hospitality industry. Students will prepare food for dining guests in the school's Captain's Table Restaurant. The coursework will help to prepare students who are interested in a professional career in the Culinary Arts.

#### Program Outcome

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

### CERTIFICATE OF ACHIEVEMENT

#### Required prerequisite:

Culinary Arts (BASIC) Certificate of Achievement

**Subtotal: 28**

#### Required Courses

| Course                      | Units      |
|-----------------------------|------------|
| <b>FALL</b>                 |            |
| Garde Manger 1              | CA A200 2  |
| Culinary Principles 3       | CA A245 3  |
| Menu Planning & Purchasing  | FSM A250 3 |
| Supervision & Training Tech | FSM A260 3 |
| Beverage Management         | FSM A275 2 |

*Continued on next page*

**SPRING**

|                                      |     |      |   |
|--------------------------------------|-----|------|---|
| Principles of Baking 2               | CA  | A126 | 2 |
| Directed Practice in CulinaryArts II | CA  | A215 | 2 |
| Garde Manger 2                       | CA  | A255 | 2 |
| Ala Minute Continental Cooking       | CA  | A265 | 2 |
| Restaurant Management                | FSM | A285 | 3 |

**Subtotal: 24**

**Total: 52**

**Suggested electives:**

|                           |     |      |   |
|---------------------------|-----|------|---|
| Principles of Pastry Arts | CA  | A226 | 3 |
| Ice Carving               | CA  | A270 | 1 |
| Catering                  | FSM | A284 | 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- BASIC**

The requirements for the Certificate of Achievement in Baking and Pastry Arts provide students with the fundamental knowledge of baking science required of bakers and pastry cooks. Students will gain hand-on knowledge of classic and contemporary patisserie and baking processes. Course work is designed for students that desire a career as a baker or pastry cook.

**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 SPECIALIZATION**

**Program Pre-requisite:**

|                     |     |      |   |
|---------------------|-----|------|---|
| Sanitation & Safety | FSM | A160 | 3 |
|---------------------|-----|------|---|

**Required Courses**

| Course |  |  |  | Units |
|--------|--|--|--|-------|
|--------|--|--|--|-------|

**FALL**

|                              |     |      |   |
|------------------------------|-----|------|---|
| Principles of Baking 1       | CA  | A124 | 2 |
| Intro to Nutrition Concepts  | FN  | A140 | 2 |
| Or                           |     |      |   |
| Nutrition                    | FN  | A170 | 3 |
| Food Service Math/Accounting | FSM | A240 | 4 |

**SPRING**

|                        |    |      |   |
|------------------------|----|------|---|
| Principles of Baking 2 | CA | A126 | 2 |
| Directed Practice      | CA | A236 | 2 |

**Total: 15-16**

**Suggested electives:**

|                                  |     |      |   |
|----------------------------------|-----|------|---|
| Color and Design:Two-Dimensional | ART | A110 | 3 |
| Freehand Drawing                 | ART | A120 | 3 |

**ADVANCED BAKING AND PASTRY**

The requirements for the Certificate of Achievement in Advanced Baking and Pastry Includes courses which lead to students gaining a solid foundational knowledge of the baking and pastry industry. Courses are designed for students who desire a career as an entrepreneur in the baking/pastry industry, or in the following positions found at restaurants, hotels, resorts, clubs, and bakeries; head baker, assistant pastry chef, pastry chef, and executive pastry chef.

**Program Outcome**

Students will be prepared for employment as professional and competent bakers, pastry cooks, or pastry entrepreneurs of retail and wholesale baking and pastry establishments.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                          |     |      |   | Units        |
|---------------------------------|-----|------|---|--------------|
| <b>FIRST SEMESTER</b>           |     |      |   |              |
| Intro to Hospitality Industry   | CA  | A100 | 3 |              |
| Intro to Nutrition Concepts (2) | FN  | A140 |   | 2-3          |
| Or                              |     |      |   |              |
| Nutrition (3)                   | FN  | A170 |   |              |
| Sanitation & Safety             | FSM | A160 | 3 |              |
| Food Service Math/Accounting    | FSM | A240 | 4 |              |
| <b>SECOND SEMESTER</b>          |     |      |   |              |
| Culinary Principles 1           | CA  | A120 | 3 |              |
| Principles of Baking 1          | CA  | A124 | 2 |              |
| Pantry                          | CA  | A149 | 2 |              |
| <b>THIRD SEMESTER</b>           |     |      |   |              |
| Principles of Baking 2          | CA  | A126 | 2 |              |
| Directed Practice               | CA  | A236 | 2 |              |
| Food Production Management      | FSM | A151 | 2 |              |
| Menu Planning & Purchasing      | FSM | A250 | 3 |              |
| Supervision & Training Tech     | FSM | A260 | 3 |              |
| <b>FOURTH SEMESTER</b>          |     |      |   |              |
| Principles of Pastry Arts       | CA  | A226 | 3 |              |
| Directed Practice               | CA  | A237 | 2 |              |
| <b>Total</b>                    |     |      |   | <b>35-36</b> |

## CULINOLOGY® & FOOD SCIENCE

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, new product development, sales, marketing, manufacturing, distribution, and the media.

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.

### CERTIFICATE OF ACHIEVEMENT

## LEVEL I – CULINARY FOOD SCIENCE ASSISTANT

Orange Coast College's Culinary and Food Sciences Assistant program is designed for students who are interested in working as assistants in the following fields: food research and development, product development, recipe development, product duplication, quality assurance, sensory, or flavor chemistry.

### Program Outcomes

Graduate will be competent entry-level Culinary and Food Science assistants meeting the employment needs of the community and be able to communicate and work effectively with Chefs, Food Scientist and clientele.

### Program Prerequisite

| Course                                      |       |              | Units    |
|---|-------|--------------|----------|
| Careers in Dietetics/Food Science Nutrition | FN/NC | A100         | 1        |
|   | FN    | A170         | 3        |
| Sanitation & Safety                         | FSM   | A160         | 3        |
|   |       | <b>Total</b> | <b>7</b> |

### Required Courses

| Course                          |      |               | Units     |
|---------------------------------|------|---------------|-----------|
| <b>FIRST SEMESTER</b>           |      |               |           |
| Culinary Principles 1           | CA   | A120          | 3         |
| Principles of Baking            | CA   | A124          | 2         |
| Food Science                    | FN   | A195          | 4         |
| Intermediate Algebra            | MATH | A030          | 4         |
| <b>SECOND SEMESTER</b>          |      |               |           |
| Pantry                          | CA   | A149          | 2         |
| Preparatory General Chemistry   | CHEM | A130          | 4         |
| Cultural Foods                  | FN   | A185          | 2         |
| Directed Practice Culinology/FS | FN   | A286          | 2         |
|                                 |      | <b>Total:</b> | <b>30</b> |

## LEVEL II CULINOLOGY® – PROFESSIONAL LEVEL

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

The Level II Culinology® and Food Science degree requires an Associate in Science; see Catalog for additional course requirements. Transfer students following the CSU General Education Breadth Requirements (CSU GE) must select courses in bold print.

This Culinology® Level II option is articulated with the Food Science and Technology, Culinology® track in the Department of Human Nutrition and Food Science at Cal Poly Pomona. The coursework has received approval from the Research Chefs' Association. Students must complete both Level I and II and meet the Associate in Science degree requirements. Students should certify their General Education coursework before transfer.

The Research Chefs' Association suggests that students take additional Culinary Arts courses such as CA 255, Advanced Garde Manger and CA 265 Ala Minute Continental Cooking to enhance their culinary skills.

### Program Outcomes

Graduates will:

1. Be competent entry-level Culinary and Food Science assistants meeting the employment needs of the community.
2. Communicate and work effectively with Chefs and Food Scientists and clientele.
3. Be able to transfer to selected colleges in Culinology®.
4. Culinology® students should obtain materials from the Transfer Center for complete details on transferable courses.

### Level 1 Culinary Food Science Assistant

**30**

| Course                            |      |                 | Units     |
|-----------------------------------|------|-----------------|-----------|
| <b>FIRST SEMESTER</b>             |      |                 |           |
| Culinary Principles 2             | CA   | A122            | 2         |
| General Chemistry A               | CHEM | A180            | 5         |
| Menu Planning & Purchasing        | FSM  | A250            | 3         |
| Trigonometry                      | MATH | A120            | 3         |
| <b>SECOND SEMESTER</b>            |      |                 |           |
| Cell & Molecular Biology          | BIOL | A180            | 4         |
| Directed Practice Culinology/FS   | FN   | A286            | 2         |
| Intro to Statistics               | MATH | A160            | 3         |
| OR                                |      |                 |           |
| Statistics for Behavioral Science | PSYC | A160            | 3         |
| General Microbiology              | BIOL | A210            | 5         |
|                                   |      | <b>SubTotal</b> | <b>27</b> |
|                                   |      | <b>TOTAL</b>    | <b>57</b> |

*Culinology® is the registered trademark of the Research Chef's Association.*

## DENTAL ASSISTING— REGISTERED

### ASSOCIATE IN SCIENCE DEGREE

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, Dental Board of California, 2005 Evergreen Street, Suite 1550, Sacramento, CA 95815.

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.*

#### Program Admission:

Allied Health A010 course – application and orientation.

All courses must be completed with 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 prerequisite:

Health Occupations ALH A010 .5

#### Required Courses

| Course  |     |      | Units       |
|---|-----|------|-------------|
| <b>FALL</b>   |     |      |             |
| Patient Care  | ALH | A115 | 2.5         |
| 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           |
| Clinical Experience 1   | DA  | A160 | 1           |
| *Clinical Experience 2  | DA  | A163 | 1           |
| <i>*Required Clinical: course must be taken in sequence. Contact the department for additional information.</i> |     |      |             |
| <b>SPRING</b>   |     |      |             |
| <b>FIRST 14 WEEKS</b>   |     |      |             |
| Chairside Techniques 2  | DA  | A115 | 2           |
| Expanded Functions  | DA  | A125 | 2           |
| Dental Radiography 2  | DA  | A145 | 2           |
| Specialized Practice  | DA  | A150 | 2           |
| Clinical Experience 3   | DA  | A165 | 2.5         |
| Prin Bus & Prac Mgmt  | DA  | A175 | 1.5         |
| <b>LAST 2 WEEKS (32 HRS/WEEK)</b>   |     |      |             |
| Clinical Experience 4   | DA  | A168 | 1           |
| <b>Total:</b>   |     |      | <b>29.5</b> |

#### Suggested electives:

|                                |           |      |   |
|--------------------------------|-----------|------|---|
| Intro to Computer Appl         | CIS       | A100 | 3 |
| Interpersonal Communication    | CMST      | A100 | 3 |
| Public Speaking                | CMST      | A110 | 3 |
| Strategies for College Success | COUN      | A105 | 2 |
| Freshman Composition           | ENGL      | A100 | 3 |
| Ethics                         | PHIL/RLST | A120 | 3 |
| Introductory Psychology        | PSYC      | A100 | 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, pit and fissure sealant and ultrasonic scaling forcement removal certificates.

### ASSOCIATE IN SCIENCE 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.

*Students must complete all required courses with a grade of "C" or better.*

#### Program Outcomes

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:

Allied Health 010 course – application and orientation.

Students must complete Associate in 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          |
| <b>Subtotal:</b>    |      |      | <b>7.5</b> |

#### Recommended preparation:

|                                |      |      |   |
|--------------------------------|------|------|---|
| Strategies for College Success | COUN | A105 | 2 |
| Technical Math*                | TECH | A040 | 3 |

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

#### Required Courses

| Course                                       |     |      | Units |
|--|-----|------|-------|
| <b>FALL</b>                                  |     |      |       |
| 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   |
| <b>SPRING</b>                                |     |      |       |
| 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<br>(8 hrs/wk - 16 wks) | DMS | A166 | 2     |
| <b>SUMMER</b>                                |     |      |       |
| Clinical Experience 2<br>(40 hrs/wk - 8 wks) | DMS | A167 | 5     |

#### FALL

|   |     |      |     |
|---|-----|------|-----|
| Advanced Vascular Ultrasound                  | DMS | A255 | 2.5 |
| Clinical Experience 3<br>(32 hrs/wk - 16 wks) | DMS | A271 | 7   |
| Abdominal Sonography                          | DMS | A274 | 3   |
| *Clinical Experience 4<br>(40 hrs/wk - 4 wks) | DMS | A276 | 2   |

*\*Required Clinical: course must be taken in sequence. Contact the department for additional information.*

#### SPRING

|   |     |      |   |
|---|-----|------|---|
| Sonographic Review                            | DMS | A275 | 3 |
| Clinical Experience 5<br>(36 hrs/wk - 16 wks) | DMS | A281 | 9 |

**Subtotal: 58**

**Total: 65.5**

#### Suggested elective:

|        |           |      |   |
|--------|-----------|------|---|
| Ethics | PHIL/RLST | A120 | 3 |
|--------|-----------|------|---|

## DIETETICS

### DIETETIC TECHNICIAN

#### ASSOCIATE IN SCIENCE DEGREE

Students completing this program are prepared to join the dietetic team in various nutritional aspects of health care. Options in Nutrition Care (part of School of Allied Health Professions) or Food Service Management may be chosen. Graduates from this program are employed by acute care, long term care, and rehabilitation hospitals, as well as by community agencies that provide education in nutrition. Completion of the following courses, along with the Associate Degree program at Orange Coast College qualifies the student to sit for the National Dietetic Technician Registration exam and become a member of the American Dietetic Association.

*Dietetic transfer students obtain transfer materials from the Transfer Center for complete details on transferable courses.*

#### Employment possibilities include:

##### Dietetic Technician in Hospital or Extended Care Facility

##### Public Health Department

##### Community Agency

#### 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.

**Continued on next page**

**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 |
| Nutrition*                    | FN    | A170 | 3   |
| Quantity Foods Preparation*   | FSM   | A150 | 4   |
| Supervision & Training Tech*  | FSM   | A260 | 3   |
| Careers in Dietetics/Food Sci | NC/FN | A100 | 1   |

**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.

**THIRD SEMESTER**

|                                     |      |      |   |
|-------------------------------------|------|------|---|
| Anatomy-Physiology                  | BIOL | A221 | 4 |
| Life Cycle Nutrition: Mother/Infant | FN   | A144 | 1 |
| Life Cycle Nutrition: Children      | FN   | A145 | 1 |
| Life Cycle Nutrition: Later Years   | FN   | A146 | 1 |
| Menu Planning & Purchasing          | FSM  | A250 | 3 |
| Intermediate Nutrition Care         | NC   | A280 | 2 |
| Supervised Practice 1               | NC   | A281 | 3 |

**FOURTH SEMESTER**

|                            |      |      |     |
|----------------------------|------|------|-----|
| Applied Pharmacology       | ALH  | A130 | 2   |
| Food Science               | FN   | A195 |     |
| OR                         |      |      | 4-5 |
| 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    |
| Interpersonal Communication       | CMST      | A100 | 3    |
| Current Issues Food/Nutr/Food Sci | FN        | A199 | .5-1 |
| Child Growth & Development        | HMDV      | A180 | 3    |
| Ethics                            | PHIL/RLST | A120 | 3    |
| Introductory Sociology            | SOC       | 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.

## 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.

*Students must complete all required courses with a grade of "C" or better.*

### ASSOCIATE IN SCIENCE IN EARLY CHILDHOOD EDUCATION FOR TRANSFER DEGREE

The Mission of this program is to grant students an AS-T degree in Early Childhood Education with 24 units in the major and prepares students to transfer to a CSU. This degree gives students priority admission to a local CSU campus, in a similar major, with junior status. Students are encouraged to also complete additional units to earn an ECE Certificate of Achievement.

**Complete the following required courses:**

| Course                                      |      |      |   | Units |
|---|------|------|---|-------|
| Teaching in a Diverse Society               | EC   | A126 | 3 |       |
| Health, Safety, & Nutrition                 | EC   | A127 | 3 |       |
| Principles/Practices Teaching Young Childrn | EC   | A155 | 3 |       |
| Observing/Recording Child Behavior          | EC   | A165 | 3 |       |
| Preschool Programs: The Curriculum          | EC   | A200 | 3 |       |
| Early Childhood Field Experience            | EC   | A201 | 3 |       |
| Child Growth & Development                  | HMDV | A180 | 3 |       |
| Family, School, Community                   | HMDV | A190 | 3 |       |

**Total Major Units: 24**

**IGETC or CSU General Education Breadth Units: 37-39**

**Total Degree Units: 60**

## INFANT & TODDLER TEACHER

### (Birth to 2 years)

**Program Outcomes**

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.

### CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                               |      |      | Units     |
|--------------------------------------|------|------|-----------|
| Child Development                    | HMDV | A180 | 3         |
| Family-School-Community              | HMDV | A190 | 3         |
| Prin/Pract of Tchg Yng Children      | EC   | A155 | 3         |
| Guidance for Young Children          | EC   | A157 | 3         |
| Early Childhood Laboratory           | EC   | A156 | 2         |
| Observing & Recording Child Behavior | EC   | A165 | 3         |
| Infant & Toddler Programs            | EC   | A220 | 3         |
| Infant & Toddler Field Experience    | EC   | A221 | 3         |
| Infant Development & Relationships   | HMDV | A184 | 3         |
|                                      |      |      | <b>26</b> |

#### Select one (1) from the following:

|                            |    |      |          |
|----------------------------|----|------|----------|
| Language Arts in Preschool | EC | A130 | 3        |
| Creativity for Children    | EC | A131 | 3        |
|                            |    |      | <b>3</b> |

#### Select one (1) from the following:

|                              |    |      |          |
|------------------------------|----|------|----------|
| Cross Cult Persp on Chid Dev | EC | A126 | 3        |
| Health Safety & Nutrition    | EC | A127 | 3        |
|                              |    |      | <b>3</b> |

#### Select one (1) from the following:

|                                 |     |      |             |
|---------------------------------|-----|------|-------------|
| Emergency Medical Care-Children | EMT | A145 | 1           |
| Current Issues in E C           | EC  | A199 | .5          |
| Inclusion Child w/Disabilities  | EC  | A240 | 1           |
| Learning Title 22               | EC  | A261 | .5          |
| Disaster Preparedness           | EC  | A262 | .5          |
| Child Abuse ID & Referral       | EC  | A263 | .5          |
|                                 |     |      | <b>.5-1</b> |

**Total: 32.5-33**

## PRESCHOOL TEACHER

### (2-5 years)

#### Program Outcomes

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     |
|--------------------------------------|------|------|-----------|
| Child Development                    | HMDV | A180 | 3         |
| Family-School-Community              | HMDV | A190 | 3         |
| Creativity for Children              | EC   | A131 | 3         |
| Science for Young Children           | EC   | A132 | 3         |
| Prin/Pract of Tchg Yng Children      | EC   | A155 | 3         |
| Early Childhood Laboratory           | EC   | A156 | 2         |
| Guidance for Young Children          | EC   | A157 | 3         |
| Observing & Recording Child Behavior | EC   | A165 | 3         |
| Preschool Programs-Curriculum        | EC   | A200 | 3         |
| Early Childhood Field Experience     | EC   | A201 | 3         |
|                                      |      |      | <b>29</b> |

#### Select one (1) from the following:

|                               |      |      |          |
|-------------------------------|------|------|----------|
| Language Arts in Preschool    | EC   | A130 | 3        |
| Language/Literacy Development | HMDV | A280 | 3        |
|                               |      |      | <b>3</b> |

#### Select one (1) from the following:

|                              |      |      |          |
|------------------------------|------|------|----------|
| Intro to E C Education       | EC   | A105 | 3        |
| Cross Cult Persp on Chid Dev | EC   | A126 | 3        |
| Health Safety & Nutrition    | EC   | A127 | 3        |
| The Exceptional Child        | HMDV | A210 | 3        |
|                              |      |      | <b>3</b> |

#### Select one (1) from the following:

|                                 |     |      |             |
|---------------------------------|-----|------|-------------|
| Emergency Medical Care-Children | EMT | A145 | 1           |
| Inclusion Child w/Disabilities  | EC  | A240 | 1           |
| 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          |
|                                 |     |      | <b>.5-1</b> |

**Total: 35.5-36**

## EARLY INTERVENTION AIDE

#### Program Outcomes

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     |
|--------------------------------------|------|------|-----------|
| Cross Cult Persp on Chid Dev         | EC   | A126 | 3         |
| Prin/Pract of Tchg Yng Children      | EC   | A155 | 3         |
| Early Childhood Laboratory           | EC   | A156 | 2         |
| Observing & Recording Child Behavior | EC   | A165 | 3         |
| Inclusion Child w/Disabilities       | EC   | A240 | 1         |
| Field Exp Child w/Special Needs      | EC   | A241 | 3         |
| Emergency Medical Care-Children      | EMT  | A145 | 1         |
| Child Development                    | HMDV | A180 | 3         |
| Family-School-Community              | HMDV | A190 | 3         |
| The Exceptional Child                | HMDV | A210 | 3         |
|                                      |      |      | <b>25</b> |

**Total: 25**

## ASSOCIATE DEGREES

Complete the Certificate of Achievement Option 1 or 2 or 3 and the 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 Outcomes

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

*Continued on next page*

**Required prerequisite:**

Early Childhood Education Certificate of Achievement Infant/Toddler Teacher  
OR  
Early Childhood Education Certificate of Achievement Preschool Teacher

**Subtotal: 32.5-33  
OR 35.5-36**

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     |
| Cross Cult Persp on Chid Dev | EC | A126 | 3     |
| Health Safety & Nutrition    | EC | A127 | 3     |

**12**

**Select one (1) from the following:**

|                               |      |      |   |
|-------------------------------|------|------|---|
| Human Relations & Supervision | MGMT | A115 | 3 |
| Adult Supervision             | EC   | A277 | 2 |

**2-3**

**Select 1.5 units from the following:**

|                                 |     |      |      |
|---------------------------------|-----|------|------|
| Inclusion Child w/Disabilities  | EC  | A240 | 1    |
| 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   |
| Emergency Medical Care-Children | EMT | A145 | 1    |

**1.5**

**15.5-16.5**

**Total: 48-52.5**

## ASSOCIATE DEGREES

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

**Select one (1) from the following:**

|                                  |    |      |   |
|----------------------------------|----|------|---|
| Creativity for Children          | EC | A131 | 3 |
| Science for Young Children       | EC | A132 | 3 |
| Prin/Pract of Tchng Yng Children | EC | A155 | 3 |
| Guidance for Young Children      | EC | A157 | 3 |

**3**

**Total: 23**

## ASSOCIATE DEGREES

Complete the Certificate of Achievement and the 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 Outcomes

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:**

|   |      |      |   |
|---|------|------|---|
| Cross Cult Persp on Chid Dev                  | EC   | A126 | 3 |
| Creativity for Children                       | EC   | A131 | 3 |
| Science for Young Children                    | EC   | A132 | 3 |
| Prin/Pract of Tchng Yng Children              | EC   | A155 | 3 |
| Early Primary Curriculum: Materials & Methods | EC   | A230 | 3 |
| Language/Literacy Development                 | HMDV | A280 | 3 |

**3**

**Total: 16.5**

## ELEMENTARY 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 Outcomes

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     |
| Cross Cult Persp on Chid Dev            | EC   | A126 | 3     |
| The Teaching Profession                 | EDUC | A200 | 3     |
| Child Growth & Development              | HMDV | A180 | 3     |
| Middle Childhood Development & Guidance | HMDV | A182 | 3     |
| Family-School-Community                 | HMDV | A190 | 3     |
| Language/Literacy Development           | HMDV | A280 | 3     |

**20**

## FAMILY CHILDCARE PROVIDER

### Program Outcomes

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         |
| <b>Subtotal:</b>                |      |      | <b>11</b> |

**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         |
|                                    |      |      | <b>3</b>  |
| <b>Total:</b>                      |      |      | <b>14</b> |

## EMERGENCY MEDICAL SERVICES

EMS 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 EMS 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 EMS 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 EMS course qualifies the student to sit for the National Registry of Emergency Medical Technicians' certifying examination, and therefore obtain EMS certification in any California County.

**Program Outcomes**

The graduate of the Emergency Medical Services program will be prepared for entry-level employment as a professional and competent Emergency Medical Technician and meet the needs of the local health care community.

The EMS certification 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: EMS A100

**Required Courses**

| Course                         |     |       | Units     |
|--------------------------------|-----|-------|-----------|
| Emergency Medical Services     | EMS | A150  | 10        |
| Emergency Medical Services lab | EMS | A150L | 1         |
| EMS Clinical Internship        | EMS | A151  | 1         |
| <b>Total:</b>                  |     |       | <b>12</b> |

**Suggested electives:**

|                             |      |      |   |
|-----------------------------|------|------|---|
| Medical Terminology         | ALH  | A111 | 3 |
| Anatomy-Physiology          | BIOL | A221 | 4 |
| Interpersonal Communication | CMST | A100 | 3 |

*\*Note: American Heart Association Healthcare Provider CPR or successful completion of EMS A100 within the last fourteen (14) months is a prerequisite for EMS A150. Concurrent enrollment in EMS 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.*

## FAMILY & 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.

**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.

**Required Courses**

| Course                           |         |      | Units     |
|----------------------------------|---------|------|-----------|
| Clothing Design & Selection      | FASH    | A170 | 3         |
| Applied Color/Design Theory      | FASH/ID | A175 | 3         |
| Principles Clothing Construction | FASH    | A180 | 3         |
| Nutrition                        | FN      | A170 | 3         |
| Principles of Food               | FN      | A180 | 3         |
| Life Management                  | FCS     | A180 | 3         |
| Sanitation & Safety              | FSM     | A160 | 3         |
| Child Growth & Development       | HMDV    | A180 | 3         |
| Fund of Interior Design          | ID      | A100 | 3         |
| <b>Total:</b>                    |         |      | <b>27</b> |

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.

## 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.

## 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) Display and Visual Presentation.

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 the Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

### CORE CURRICULUM

#### Required Courses

| Course                         |      |      | 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         |
| <b>Total:</b>                  |      |      | <b>15</b> |

## DESIGN

### Program Outcomes

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     |
|--|---------|------|-----------|
| <b>Fashion Core Curriculum</b>         |         |      | <b>15</b> |
| Color & Design 2-D                     | ART     | A110 |           |
| OR                                     |         |      |           |
| Applied Color & Design Theory          | FASH/ID | A175 | 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         |
| Fashion Internship                     | FASH    | A181 | 2         |
| Professional Practices                 | FASH    | A182 | 2         |
| Fashion Illustrating Tech 1            | FASH    | A255 | 3         |
| Fashion Illustrating Tech 2            | FASH    | A256 | 3         |
| Fashion Dsgn/Production Concepts & App | FASH    | A260 | 3         |
| <b>Total:</b>                          |         |      | <b>44</b> |

### Suggested electives:

|                              |      |      |   |
|------------------------------|------|------|---|
| Intro to Art                 | ART  | A107 | 3 |
| Color & Design 3-D           | ART  | A111 | 3 |
| Intro International Business | BUS  | A118 | 3 |
| Draping                      | FASH | A235 | 2 |
| Retail Buying                | MKTG | A220 | 3 |

## 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

#### Required Courses

| Course                                 |      |      | Units     |
|--|------|------|-----------|
| <b>FALL</b>                            |      |      |           |
| Color & Design 2-D                     | ART  | A110 |           |
| OR                                     |      |      |           |
| Applied Color/Design Theory            | FASH | A175 | 3         |
| Exhibition Design 1                    | ART  | A145 | 3         |
| Fashion Illustrating Techniques        | FASH | A255 | 3         |
| Intro to Display & Visual Presentation | DVP  | A180 | 3         |
| Principles of Advertising              | MKTG | A130 | 3         |
| <b>SPRING</b>                          |      |      |           |
| Color & Design 3-D                     | ART  | A111 | 3         |
| Fashion Internship                     | FASH | A181 | 2         |
| Intro to Photography                   | PHOT | A120 |           |
| OR                                     |      |      |           |
| Intro to Digital Photography           | PHOT | A123 | 3         |
| <b>Total:</b>                          |      |      | <b>23</b> |
| <b>Suggested electives:</b>            |      |      |           |
| Contemporary Art History               | ART  | A102 | 3         |
| Rapid Illustration Techniques          | DMAD | A117 | 4         |

**ASSOCIATE DEGREE**

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

**PRODUCTION/PRODUCT DEVELOPMENT**

**Program Outcomes**

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         |
|--|---------------|
| <b>Fashion Core Curriculum</b>                 | <b>15</b>     |
| Excel 1  | CIS A134 2    |
| 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 Illustrating Tech 1                    | FASH A255 3   |
| Fashion Dsgn/Production Concepts & Application | FASH A260 3   |
| Computerized Pattern System                    | FASH A266 2   |
| <b>Total:</b>                                  | <b>45.5</b>   |

\*Course must be taken twice

**Suggested electives:**

|                          |             |
|--------------------------|-------------|
| Intro to Int'l Business  | BUS A118 3  |
| Business Math            | BUS A125 3  |
| Business English         | BUS A138 3  |
| Intro to Info Sys & Appl | CIS A100 3  |
| International Marketing  | MKTG A150 3 |
| Retail Buying            | MKTG A220 3 |

**APPAREL CONSTRUCTION**

**Program Outcomes**

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         |
|--------------------------------|---------------|
| <b>Fashion Core Curriculum</b> | <b>15</b>     |
| 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   |
| <b>Total:</b>                  | <b>43.5</b>   |

\*Course must be taken twice.

**Suggested electives:**

|               |             |
|---------------|-------------|
| Retail Buying | MKTG A220 3 |
|---------------|-------------|

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

**FASHION MERCHANDISING**

**Program Outcomes**

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**

| Course                                 | Units       |
|--|-------------|
| <b>Fashion Core Curriculum</b>         | <b>15</b>   |
| Intro to Display & Visual Presentation | DVP A180 3  |
| Trend Forecasting                      | FASH A118 3 |
| Color & Design 2-D                     | ART A110 3  |
| OR                                     |             |
| Applied Color/Design Theory            | FASH A175 3 |
| Fashion Internship                     | FASH A181 2 |
| Professional Practices                 | FASH A182 2 |
| Spec Events Coordination               | FASH A225 3 |
| Retail Store Management                | MKTG A200 3 |
| OR                                     |             |
| Professional Selling                   | MKTG A110 3 |
| Retail Buying                          | MKTG A220 3 |
| Excel 1                                | CIS A134 2  |
| Fashion Illustration Techniques 1      | FASH A255 3 |
| <b>Total:</b>                          | <b>42</b>   |

**Suggested electives:**

|                              |                 |
|------------------------------|-----------------|
| Intro International Business | BUS A118 3      |
| Professional Communication   | BUS/MKTG A239 3 |
| Business Multimedia/Graphics | CIS A132 2      |
| Intro to Computer Graphics   | DMAD A181 3     |
| Small Business Ownership     | MGMT A240 3     |
| Direct Mail/Marketing        | MKTG A142 1.5   |

## 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 Outcomes**

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          |
|------------------------------|------|------|----------------|
| Beg Clothing Techniques      | FASH | A100 | 3              |
| Int Clothing Techniques* (3) | FASH | A101 | 6              |
| Industrial Sewing Techniques | FASH | A102 | 2              |
| Sewing Lab                   | FASH | A050 | .5-2           |
| <b>Total:</b>                |      |      | <b>11.5-13</b> |

\*Course must be taken twice

**Suggested electives:**

|                            |      |      |     |
|----------------------------|------|------|-----|
| Alterations                | FASH | A137 | 2   |
| Internship Academy-Level 2 | ITRN | A392 | 1-4 |

## 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 Outcomes**

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

**Required Courses**

| Course                                |     |      | Units        |
|---------------------------------------|-----|------|--------------|
| <b>FALL</b>                           |     |      |              |
| Intro to Nutrition Concepts (2)<br>OR | FN  | A140 | 2-3          |
| Nutrition (3)                         | FN  | A170 |              |
| Intro to Hospitality Industry         | FSM | A100 | 3            |
| Quantity Foods Preparation            | FSM | A150 | 4            |
| Sanitation & Safety                   | FSM | A160 | 3            |
| Dining Room Service                   | FSM | A190 | 2            |
| <b>SPRING</b>                         |     |      |              |
| Food Production Management            | FSM | A151 | 2            |
| Dining Room Management                | FSM | A210 | 3            |
| FSM Math/Accounting                   | FSM | A240 | 4            |
| Supervision & Training Tech           | FSM | A260 | 3            |
| Restaurant Management                 | FSM | A285 | 3            |
| <b>Total:</b>                         |     |      | <b>29-30</b> |

## RESTAURANT

### ASSOCIATE IN SCIENCE DEGREE PROGRAM

In addition to completion of the prerequisite and required courses below, this program requires completion of the Associate in Science General Education as listed in the catalog.

**Program Outcomes**

The outcome of the program is to 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 Applications | CIS | A100 | 3 |
|--------------------------------|-----|------|---|

**Required Courses**

| Course                            |      |      | Units        |
|-----------------------------------|------|------|--------------|
| <b>FALL</b>                       |      |      |              |
| Menu Planning/Purchasing          | FSM  | A250 | 3            |
| Directed Practice*                | FSM  | A286 | 2            |
| Hospitality, Travel & Tourism Law | HTT  | A286 | 3            |
| Introductory Psychology           | PSYC | A100 | 3            |
| <b>SPRING</b>                     |      |      |              |
| Bar Management                    | FSM  | A275 | 2            |
| Catering                          | FSM  | A284 | 3            |
| Directed Practice*                | FSM  | A286 | 2            |
| <b>Total:</b>                     |      |      | <b>47-48</b> |

**Suggested electives:**

|                            |      |      |     |
|----------------------------|------|------|-----|
| Beg Computer Keyboarding 1 | CIS  | A090 | 1.5 |
| Emergency Medical Care     | EMS  | A100 | 3   |
| OR                         |      |      |     |
| First Aid & CPR            | HLED | A112 | 2   |

\*Supervisory or management position approved by program coordinator.

## 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 Outcomes

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         |
| FSM Math/Acct               | FSM | A240 | 4         |
| Supervision & Training Tech | FSM | A260 | 3         |
| Restaurant Management       | FSM | A285 | 3         |
| Directed Practice           | FSM | A286 | 4         |
| <b>Total:</b>               |     |      | <b>17</b> |

## 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 Outcomes

The outcome of the program is to 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 ACHIEVEMENT

### Required Courses

| Course                      |     |      | Units |
|-----------------------------|-----|------|-------|
| Garde Manger                | CA  | A200 | 2     |
| OR                          |     |      |       |
| Food Production Management  | FSM | A151 | 2     |
| Intro to Nutrition Concepts | FN  | A140 | 2     |
| Sanitation & Safety         | FSM | A160 | 3     |
| Menu Planning & Purchasing  | FSM | A250 | 3     |
| Catering                    | FSM | A284 | 3     |

### Four Units from the following:

|                            |     |      |   |
|----------------------------|-----|------|---|
| Culinary Principles 1      | CA  | A120 | 3 |
| Culinary Principles 2      | CA  | A122 | 3 |
| Pantry                     | CA  | A149 | 2 |
| Principles of Baking 1     | CA  | A124 | 2 |
| OR                         |     |      |   |
| Quantity Foods Preparation | FSM | A150 | 4 |

**Total: 17-19**

### Suggested electives:

|                              |     |      |   |
|------------------------------|-----|------|---|
| Small Business Ownership     | BUS | A240 | 3 |
| Principles of Baking 1       | CA  | A124 | 2 |
| Ice Carving                  | CA  | A270 | 1 |
| 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.

## 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.

### Program Outcomes

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 |
|------------------------------|-----|------|-------|
| Nutrition                    | FN  | A170 | 3     |
| Quantity Foods Preparation   | FSM | A150 | 4     |
| 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**

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



lege 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 [www.orangecoastcollege.edu](http://www.orangecoastcollege.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 Outcomes

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

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Core Curriculum                                   |      |      |     | 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   |             |
| Event Staffing & Coordination                     | HTT  | A105 | 3   |             |
| Communication Connection                          | HTT  | A114 | 1.5 |             |
| Interviewing Techniques                           | HTT  | A115 | 1.5 |             |
| Destination the Americas                          | HTT  | A125 | 3   |             |
| Destination Europe                                | HTT  | A127 | 3   |             |
| Destination Africa/Pacific                        | HTT  | A128 | 3   |             |
| Cultural Awareness and Etiquette                  | HTT  | A132 | 1.5 |             |
| Homeland Security                                 | HTT  | A135 | 2   |             |
| <b>Subtotal:</b>                                  |      |      |     | <b>26.5</b> |

#### This course is to be completed after successful completion of ATC Core Curriculum

|                 |     |      |   |             |
|-----------------|-----|------|---|-------------|
| Internship      | HTT | A116 | 3 |             |
| <b>Subtotal</b> |     |      |   | <b>29.5</b> |

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

|                             |     |      |     |             |
|-----------------------------|-----|------|-----|-------------|
| Success Strategies          | HTT | A133 | 2   |             |
| Enhancing Guest Service     | HTT | A180 | 3   |             |
| Internship 2                | HTT | A279 | 3   |             |
| Leadership Development      | HTT | A281 | 2   |             |
| Supervisory Skill Developmt | HTT | A282 | 1.5 |             |
| <b>Subtotal</b>             |     |      |     | <b>32.5</b> |

#### Select at least two-and-a-half (2.5) units from tse following:

|                                      |     |      |     |           |
|--------------------------------------|-----|------|-----|-----------|
| Systems - APOLLO                     | HTT | A129 | 2.5 |           |
| Computer Reservation Systems – SABRE | HTT | A131 | 2.5 |           |
| <b>Subtotal:</b>                     |     |      |     | <b>35</b> |

#### Suggested electives:

|  |      |      |        |  |
|--|------|------|--------|--|
| Interpersonal Communication              | CMST | A100 | 3      |  |
| Intro to Hospitality                     | HTT  | A100 | 3      |  |
| Computer Reservation Systems – SABRE     | HTT  | A131 | 2.5    |  |
| Computing for Hospitality/Travel/Tourism | HTT  | A134 | 1.5    |  |
| Enhancing Guest Service                  | HTT  | A180 | 3      |  |
| Current Issues                           | HTT  | A199 | .5-1.5 |  |
| Internship 2                             | HTT  | A279 | 4      |  |
| Elementary Spanish 1                     | SPAN | A180 | 5      |  |

### 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 Outcomes

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       |
|------------------------------------|------|------|-----|-------------|
| <b>ATC Core Curriculum</b>         |      |      |     | <b>26.5</b> |
| Corprate/Contract Flight Attendant | ARLN | A136 | 1.5 |             |
| Culinary Principles 1              | CA   | A120 | 3   |             |
| Sanitation & Safety                | FSM  | A160 | 3   |             |
| Enhancing Guest Service            | HTT  | A180 | 3   |             |
| Catering Design & Management       | HTT  | A278 | 1   |             |
| Supervisory Skill Development      | HTT  | A282 | 1.5 |             |
| <b>Subtotal</b>                    |      |      |     | <b>39.5</b> |

#### This course is to be completed after successful completion of ATC Core Curriculum

|                 |     |      |   |             |
|-----------------|-----|------|---|-------------|
| Internship      | HTT | A116 | 3 |             |
| <b>Subtotal</b> |     |      |   | <b>42.5</b> |

#### Suggested electives:

|                                      |      |      |        |  |
|--------------------------------------|------|------|--------|--|
| Interpersonal Communication          | CMST | A100 | 3      |  |
| Intro to Hospitality                 | HTT  | A100 | 3      |  |
| Computer Reservation Systems – SABRE | HTT  | A131 | 2.5    |  |
| Current Issues in HTT                | HTT  | A199 | .5-1.5 |  |
| Internship 2                         | HTT  | A279 | 3      |  |
| Leadership Development               | HTT  | A281 | 2      |  |
| Elementary Spanish 1                 | SPAN | A180 | 5      |  |

## 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           |
| Communication Connection                  | HTT | A114 | 1.5         |
| Interviewing Techniques                   | HTT | A115 | 1.5         |
| 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         |
| <b>Subtotal:</b>                          |     |      | <b>13.5</b> |

**This course is to be completed after successful completion of the 13.5 Hotel Management core curriculum units**

|              |     |      |             |
|--------------|-----|------|-------------|
| Internship   | HTT | A116 | 3           |
| <b>Total</b> |     |      | <b>16.5</b> |

## FRONT OFFICE SPECIALIST

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

### Program Outcomes

The outcome for the certificate of achievement is to prepare students for entry-level employment within the hotel industry in front office.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                            |      |      | Units       |
|-----------------------------------|------|------|-------------|
| <b>Hotel Mgmt Core Curriculum</b> |      |      | <b>16.5</b> |
| Front Office Operations           | HTEL | A110 | 3           |
| Guest Services                    | HTEL | A130 | 1.5         |
| Hospitality Operations            | HTT  | A285 | 3           |
| Housekeeping/Property Operations  | HTT  | A120 | 3           |
| Revenue Management                | HTT  | A140 | 2           |
| E-Marketing and Sales             | HTT  | A240 | 3           |

**This course is to be completed after successful completion of the above Front Office Specialist curriculum**

|               |     |      |           |
|---------------|-----|------|-----------|
| Internship 2  | HTT | A279 | 4         |
| <b>Total:</b> |     |      | <b>36</b> |

#### Suggested electives:

|                             |      |      |     |
|-----------------------------|------|------|-----|
| Current Issues              | HTT  | A199 | 1.5 |
| Interpersonal Communication | CMST | A100 | 3   |
| Elementary Spanish 1        | SPAN | A180 | 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 Outcomes

The outcome for the certificate of achievement is to prepare students for entry-level employment within the hotel industry in front office.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                            |      |      | Units       |
|-----------------------------------|------|------|-------------|
| <b>Hotel Mgmt Core Curriculum</b> |      |      | <b>16.5</b> |
| Supervision & Training Tech       | HTEL | A260 | 3           |
| Hospitality Operations            | HTT  | A285 | 3           |
| Leadership Development            | HTT  | A281 | 2           |
| Hospitality, Travel & Tourism Law | HTT  | A286 | 3           |
| Human Resource Management         | HTT  | A288 | 3           |
| California Labor Law              | HTT  | A290 | 3           |

**This course is to be completed after successful completion of above:**

|               |     |      |             |
|---------------|-----|------|-------------|
| Internship 2  | HTT | A279 | 4           |
| <b>Total:</b> |     |      | <b>37.5</b> |

#### Suggested electives:

|                             |      |      |   |
|-----------------------------|------|------|---|
| Interpersonal Communication | CMST | A100 | 3 |
| Elementary Spanish 1        | SPAN | A180 | 5 |

## 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 Outcomes

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.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                            |      |      | Units       |
|-----------------------------------|------|------|-------------|
| <b>Hotel Mgmt Core Curriculum</b> |      |      | <b>16.5</b> |
| 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         |
| Hospitality Operations            | HTT  | A285 | 3           |

**This course is to be completed after successful completion of above:**

|               |     |      |             |
|---------------|-----|------|-------------|
| Internship 2  | HTT | A279 | 4           |
| <b>Total:</b> |     |      | <b>34.5</b> |

**Suggested electives:**

|                             |      |      |   |
|-----------------------------|------|------|---|
| Interpersonal Communication | CMST | A100 | 3 |
| Elementary Spanish 1        | SPAN | A180 | 5 |

## 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 Outcomes**

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     |
|--|------|------|-----------|
| <b>Front Office Specialist Certificate of Achievement</b>                |      |      | <b>36</b> |
| Sanitation & Safety  | FSM  | A160 | 3         |
| Supervision & Training   | HTEL | A260 | 3         |
| Hospitality Accounting   | HTT  | A118 | 3         |
| Hospitality, Travel & Tourism Law  | HTT  | A286 | 3         |
| Human Resource Management  | HTT  | A288 | 3         |
| <b>Subtotal:</b>   |      |      | <b>51</b> |
| <b>Select a minimum of six (6 units) from the following:</b>             |      |      |           |
| Restaurant Management System - APOLLO                                    | FSM  | A285 | 3         |
| OR   | HTT  | A129 | 2.5       |
| 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         |
|  |      |      | <b>6</b>  |
| <b>This course to be completed after successful completion of above:</b> |      |      |           |
| Internship 2   | HTT  | A279 | 4         |
| <b>Total:</b>  |      |      | <b>61</b> |

**Suggested electives:**

|                             |      |      |   |
|-----------------------------|------|------|---|
| Interpersonal Communication | CMST | A100 | 3 |
| Elementary Spanish 1        | SPAN | A180 | 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.

## 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 an internship to earn the Certificate of Achievement.

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 traditional 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 meeting facilities and development of hands-on projects.

### CERTIFICATE OF ACHIEVEMENT

**Program Outcomes**

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.

| 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         |
| Establish & Operate Event Bus                                    | HTT | A274 | 1           |
| Leadership Development   | HTT | A281 | 2           |
| Supervisory Skill Development                                    | HTT | A282 | 1.5         |
| <b>Subtotal:</b>   |     |      | <b>10.5</b> |
| <b>Select 8 units of specialized courses from the following:</b> |     |      |             |
| 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           |
| 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 | 1.5         |
|  |     |      | <b>18.5</b> |

**Take this course after completion of twelve 12 units:**

**This course to be completed after successful completion of Event Management curriculum:**

|               |     |      |             |
|---------------|-----|------|-------------|
| Internship    | HTT | A116 | 3           |
| <b>Total:</b> |     |      | <b>21.5</b> |

**Suggested electives:**

|                             |      |      |        |
|-----------------------------|------|------|--------|
| Interpersonal Communication | CMST | A100 | 3      |
| Current Issues              | HTT  | A199 | .5-1.5 |
| Elementary Spanish 1        | SPAN | A180 | 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 Outcomes

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.

| Course                                |     |      | Units      |
|---------------------------------------|-----|------|------------|
| 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        |
| EvLeadership Development              | HTT | A281 | 2          |
| Supervisory Skill Development         | HTT | A282 | 1.5        |
| <b>Subtotal:</b>                      |     |      | <b>9.5</b> |

#### Choose at least five (5) units from the following:

|                          |     |      |             |
|--------------------------|-----|------|-------------|
| Taking Off in Travel     | HTT | A150 | 1.5         |
| Cruise Industry          | HTT | A154 | 1.5         |
| Enhancing Guest Services | HTT | A180 | 3           |
| Managing Business Risks  | HTT | A267 | 1.5         |
| Incentive Travel         | HTT | A268 | 1           |
|                          |     |      | <b>14.5</b> |

#### Choose at least six (6) units from the following:

|                               |     |      |             |
|-------------------------------|-----|------|-------------|
| Taking Off in Travel          | HTT | A150 | 1.5         |
| Cruise Industry               | HTT | A154 | 1.5         |
| Enhancing Guest Services      | HTT | A180 | 3           |
| E-Marketing & Sales           | HTT | A240 | 3           |
| Managing Business Risks       | HTT | A267 | 1.5         |
| Hotel Operations              | HTT | A285 | 3           |
| Incentive Travel              | HTT | A268 | 1           |
| Hospitality, Travel & Tourism | HTT | A286 | 3           |
| Human Resource Management     | HTT | A288 | 3           |
|                               |     |      | <b>20.5</b> |

#### This course is to be completed after successful completion of Spa Management curriculum:

|               |     |      |             |
|---------------|-----|------|-------------|
| Internship    | HTT | A116 | 3           |
| <b>Total:</b> |     |      | <b>23.5</b> |

#### Suggested electives:

|                             |      |      |        |
|-----------------------------|------|------|--------|
| Current Issues              | HTT  | A199 | .5-1.5 |
| Elementary Spanish 1        | SPAN | A180 | 5      |
| Interpersonal Communication | CMST | A100 | 3      |

## 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 [www.orangecoastcollege.edu](http://www.orangecoastcollege.edu).

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 |
|--------------------------------------|-----|------|-------|
| Destination the Americas             | HTT | A125 | 3     |
| 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   |
| 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: 23.5**

#### Suggested electives:

|                             |      |      |        |
|-----------------------------|------|------|--------|
| Interpersonal Communication | CMST | A100 | 3      |
| Current Issues              | HTT  | A199 | .5-1.5 |
| Elementary Spanish 1        | SPAN | A180 | 5      |

## 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 Outcomes

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       |           |     |
|---|-------------|-----------|-----|
| <b>Travel &amp; Tourism Core Curriculum</b> | <b>23.5</b> |           |     |
| Destination Geography (additional 3 units)  | HTT         | A125-A128 | 3   |
| Internship 1                                | HTT         | A116      | 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   |
| <b>Total:</b>                               | <b>36.5</b> |           |     |

## 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 Outcomes

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       |           |     |
|---|-------------|-----------|-----|
| <b>Travel &amp; Tourism Core Curriculum</b> | <b>23.5</b> |           |     |
| Internship 1                                | HTT         | A116      | 3   |
| Destination Geography ( 6 units)            | HTT         | A125-A128 | 6   |
| Selling Vacation Package & Tours            | HTT         | A153      | 1.5 |
| Tour Escorting and Management               | HTT         | A155      | 1.5 |
| <b>Total:</b>                               | <b>35.5</b> |           |     |

## 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       |           |     |
|---|-------------|-----------|-----|
| <b>Travel &amp; Tourism Core Curriculum</b> | <b>23.5</b> |           |     |
| Internship 1                                | HTT         | A116      | 3   |
| Destination Geography ( 6 units)            | HTT         | A125-A128 | 6   |
| Corporate Travel                            | HTT         | A152      | 1.5 |
| Selling Vacation Package & Tours            | HTT         | A153      | 1.5 |
| Tour Escorting and Management               | HTT         | A155      | 1.5 |
| <b>Total:</b>                               | <b>37</b>   |           |     |

## 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       |           |     |
|---|-------------|-----------|-----|
| <b>Travel &amp; Tourism Core Curriculum</b> | <b>23.5</b> |           |     |
| Internship 1                                | HTT         | A116      | 3   |
| Destination Geography ( 6 units)            | HTT         | A125-A128 | 6   |
| Corporate Travel                            | HTT         | A152      | 1.5 |
| Selling Vacation Package & Tours            | HTT         | A153      | 1.5 |
| Cruise Industry                             | HTT         | A154      | 1.5 |
| Tour Escorting and Management               | HTT         | A155      | 1.5 |
| Incentive Travel                            | HTT         | A268      | 1   |
| <b>Total:</b>                               | <b>39.5</b> |           |     |

## 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.

*Continued on next page*

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 Outcomes**

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) Completion of/or concurrent enrollment | 39.5        |
| Destination The Americas HTT A125  | 3           |
| Destination Europe HTT A127  | 3           |
| Destination Africa/Pacific HTT A128  | 3           |
| <b>Subtotal:</b>   | <b>48.5</b> |

**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           |
| Hospitality Operations HTT A285                   | 3           |
| Leadership Development HTT A281                   | 2           |
| Human Resource Management HTT A288                | 3           |
| <b>Total:</b>                                     | <b>57.5</b> |

**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.

Interior Design Kitchen and Bath Advanced Certificate builds upon the foundation of Level 2 by applying added knowledge and technology to more advanced projects and a focused specialization. Students earning this certificate are ready to begin their interior design careers as entry level Kitchen and Bath designers and to pursue industry certifications.

**LEVEL 1 - 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 |
|--|-------|
| <b>FIRST SEMESTER</b>                    |       |
| 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 <b>Intro Materials &amp; Products</b> | ARCH ID | A150 | 23           |
| Applied Color/Design Theory                   | ID      | A175 |              |
| OR  |         |      |              |
| Color & Design 2D                             | ART     | A110 | 3            |
| Hist Arch/Furnishings 2                       | ID      | A190 | 3            |
| Professional Selling                          | MKTG    | A110 | 3            |
| CAD 2-D                                       | ARCH    | A150 |              |
| OR  |         |      |              |
| CAD 2D for Interior Design                    | ID      | A130 | 2            |
| <b>Subtotal:</b>                              |         |      | <b>24 27</b> |

**ASSOCIATE IN SCIENCE DEGREE PROGRAM**

The Level 2 Interior Design Assistant requires completion of the Associate in Science Degree graduation requirements as outlined in the catalog in addition to completion of required units listed below.

**LEVEL 2 - INTERIOR DESIGN ASSISTANT**

**Program Outcomes**

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.

**ASSOCIATE IN SCIENCE DEGREE**

**Required Courses**

| Course                               |      |             | Units        |
|--------------------------------------|------|-------------|--------------|
| <b>THIRD SEMESTER</b>                |      |             |              |
| <b>Level I Certificate</b>           |      |             |              |
| BIM 1 for Architecture               | ARCH | A155        | 2            |
| Space Planning                       | ID   | A170        | 3            |
| Interior Illustration                | ID   | A200        | 3            |
| Fundamentals of Lighting             | ID   | A210        | 3            |
| <b>FOURTH SEMESTER</b>               |      |             |              |
| BIM 2 for Architecture               | ARCH | A156        | 2            |
| Interior Design Studio 2             | ID   | A215        | 3            |
| Interior Design Const Documents      | ID   | A220        | 3            |
| <b>Business &amp; Prof. Practice</b> | ID   | <b>A230</b> | <b>3</b>     |
| Interior Design Internship           | ID   | A240        | 4            |
| <b>Subtotal:</b>                     |      |             | <b>50 53</b> |

**LEVEL 3 - INTERIOR DESIGN - PROFESSIONAL LEVEL**

**Program Outcomes**

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**

| Course  |           |             | Units        |
|---|-----------|-------------|--------------|
| <b>FIFTH SEMESTER</b>                                       |           |             |              |
| <b>Level I &amp; II Certificates, and AS Degree</b>         |           |             |              |
| Codes and Building Systems                                  | ID        | A250        | 3            |
| Digital Visualization Methods                               | ID        | A260        | 3            |
| Interior Design Studio - Specialization                     | ID        | A265        | 3            |
| Related Elective  |           |             | 3            |
| <b>Choose (3) units from the following list of courses:</b> |           |             |              |
| Color & Design 3D`  | ART       | A111        | 3            |
| Furniture Making and Design                                 | ART       | A116        | 3            |
| Furniture Making and Design                                 | CNST      | A116        | 3            |
| Introduction to Display & Visual Presentation               | DVP       | A180        | 3            |
| Introduction to Photography                                 | PHOTO     | A120        | 3            |
| Introduction Digital Photography                            | PHOTO     | A123        | 3            |
| <b>Studio Project Specialization</b>                        | <b>ID</b> | <b>A265</b> | <b>3</b>     |
| <b>Total:</b>   |           |             | <b>62 65</b> |

**INTERIOR DESIGN – KITCHEN & BATH ADVANCED CERTIFICATE**

**Program Outcomes**

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

**CERTIFICATE OF SPECIALIZATION**

| Course                                  |    |      | Units     |
|---|----|------|-----------|
| Codes and Building Systems              | ID | A250 | 3         |
| Digital Visualization Methods           | ID | A260 | 3         |
| Interior Design Studio - Bath Design    | ID | A280 | 2         |
| Interior Design Studio - Kitchen Design | ID | A285 | 2         |
| <b>Total:</b>                           |    |      | <b>10</b> |

## MEDICAL ASSISTING

### CMA ELIGIBLE PROGRAM

The Medical Assisting program includes specific business and clinical courses that prepare students for employment as clinical and/or administrative assistants in medical offices, clinics, or in related medical and business fields. The coursework can be completed in three semesters, and includes on-the-job experience in a medical office or ambulatory care center.

The Orange Coast College Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Such accreditation permits graduates of this program to take the National Certified Medical Assistant examination immediately upon graduation.

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 Outcomes

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.

#### Program Admission

ALH A010 course - application and orientation

ALL Courses must be completed with grade of "C" or better.

### CERTIFICATE OF ACHIEVEMENT

#### Prerequisite Courses

|                                      |      |      |    |
|--------------------------------------|------|------|----|
| Introduction to Anatomy & Physiology | BIOL | A221 | 4  |
| Allied Health                        | ALH  | A010 | .5 |
| Medical Terminology                  | ALH  | A111 | 3  |

#### Required Courses

| Course                            |     |      | Units     |
|-----------------------------------|-----|------|-----------|
| <b>FALL</b>                       |     |      |           |
| Patient Care                      | ALH | A115 | 2.5       |
| Medical Assisting Core            | MA  | A150 | 3         |
| Admin Medical Asstg I             | MA  | A175 | 3         |
| Clinical Medical Asstg I          | MA  | A181 | 5         |
| <b>SPRING</b>                     |     |      |           |
| Human Disease                     | ALH | A120 | 2         |
| Admin Medical Asstg II            | MA  | A205 | 5         |
| Medical Asstg Clinical Experience | MA  | A281 | 3.5       |
| Clinical Med Asstg II Spec Proced | MA  | A289 | .5        |
| <b>Total:</b>                     |     |      | <b>32</b> |

#### Suggested electives:

|                      |           |      |   |
|----------------------|-----------|------|---|
| Applied Pharmacology | ALH       | A130 | 2 |
| Business English     | BUS       | A138 | 3 |
| Ethics               | PHIL/RLST | A120 | 3 |

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

### ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science 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 Outcomes

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:

Allied Health 010 course – application and orientation

The student must complete Associate in Science degree Mathematics and General Education requirements and the program prerequisites prior to acceptance to the program.

#### Program prerequisites:

|                     |      |      |            |
|---------------------|------|------|------------|
| Health Occupations  | ALH  | A010 | .5         |
| Medical Terminology | ALH  | A111 | 3          |
| Anatomy-Physiology  | BIOL | A221 | 4          |
| <b>Subtotal:</b>    |      |      | <b>7.5</b> |

#### Recommended preparation:

|                        |     |      |   |
|------------------------|-----|------|---|
| Intro to Computer Appl | CIS | A100 | 3 |
|------------------------|-----|------|---|

#### Required Courses

| Course               |     |      | Units |
|----------------------|-----|------|-------|
| <b>FALL</b>          |     |      |       |
| Patient Care         | ALH | A115 | 2.5   |
| Applied Pharmacology | ALH | A130 | 2     |
| Basic EEG            | NDT | A110 | 4     |
| Human Diseases       | ALH | A120 | 2     |

\*Neurodiagnostic Lab Practice                      NDT            A200            .5  
*\*Required Clinical: course must be taken in sequence. Contact the department for additional information.*

**SPRING**

|                            |     |      |     |
|----------------------------|-----|------|-----|
| 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   |

\*Neurodiagnostic Lab Practice                      NDT            A200            .5  
*\*Required Clinical: course must be taken in sequence. Contact the department for additional information.*

**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:**

|  |           |      |   |
|--|-----------|------|---|
| Interpersonal Communication            | CMST      | A100 | 3 |
| Technical Electronics                  | ELEC      | A140 | 3 |
| Technical Writing & Critical Reasoning | ENGL      | A105 | 3 |
| Child Growth & Development             | HMDV      | A180 | 3 |
| Specialty Procedures                   | MA        | A289 | 1 |
| Ethics                                 | PHIL/RLST | A120 | 3 |
| Conceptual Physics                     | PHYS      | A110 | 3 |
| Statistics for Behavioral Sci          | PSYC      | A160 | 3 |
| Elementary Spanish 1                   | SPAN      | A180 | 5 |

This program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

## NEURODIAGNOSTIC TECHNOLOGY UPGRADE

The courses required in this professional upgrade certificate are intended for the advanced neurodiagnostic student or for technologists working in the field of electroneurodiagnostic technology. The required courses reflect the most recent industry changes, and many have listed required prerequisites. Certificates will be awarded through the Consumer and Health Sciences division office.

### CERTIFICATE OF 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 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              | KIN   | 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 Outcomes

Graduates will be competent entry-level Nutrition Assistants meeting the employment needs of the community.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                                   |    |      | Units        |
|--|----|------|--------------|
| <b>Nutrition Careers Core Curriculum</b> |    |      | <b>7-9</b>   |
| 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            |
| <b>Subtotal:</b>                         |    |      | <b>18-20</b> |

#### Select one (1) from the following:

|                    |    |      |              |
|--------------------|----|------|--------------|
| Cooking Essentials | FN | A120 | 1            |
| Vegetarian Cuisine | FN | A125 | 1            |
| Cooking Lite       | FN | A173 | 1            |
| <b>Total:</b>      |    |      | <b>19-21</b> |

### ASSOCIATE DEGREES

Complete the Certificate of Achievement and the 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 gymnasia, community agencies concerned with nutrition education, and manufacturers and distributors of nutritionally related products.

### Program Outcomes

Graduates will be competent entry-level Nutrition Education Assistants meeting the employment needs of the community.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                                   |      |      | Units        |
|--|------|------|--------------|
| <b>Nutrition Careers Core Curriculum</b> |      |      | <b>7-9</b>   |
| 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            |
| <b>Subtotal:</b>                         |      |      | <b>27-29</b> |

#### Select one (1) from the following:

|                    |    |      |              |
|--------------------|----|------|--------------|
| Cooking Essentials | FN | A120 | 1            |
| Vegetarian Cuisine | FN | A125 | 1            |
| Cooking Lite       | FN | A173 | 1            |
| <b>Total:</b>      |    |      | <b>28-30</b> |

#### 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 Growth & Development          | HMDV | A180 | 3    |
| Professional Selling                | MKTG | A110 | 3    |

### ASSOCIATE DEGREES

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

## 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 Outcomes

Graduates will be competent entry-level Nutrition and Fitness professionals meeting the employment needs of the community.

### CERTIFICATE OF ACHIEVEMENT

## Required Courses

| Course                                   |      |      | Units        |
|--|------|------|--------------|
| <b>Nutrition Careers Core Curriculum</b> |      |      | <b>7-9</b>   |
| <b>FIRST SEMESTER</b>                    |      |      |              |
| Anatomy & Physiology                     | BIOL | A221 | 4            |
| Nutrition/Fitness and Performance        | FN   | A136 | 3            |
| <b>SECOND SEMESTER</b>                   |      |      |              |
| Life Cycle Nutrition: Children           | FN   | A145 | 1            |
| Cultural Foods                           | FN   | A185 | 2            |
| Intro to Med Nutrition Therapy           | NC   | A180 | 3            |
| Fitness and Health                       | KIN  | A270 | 3            |
| <b>THIRD SEMESTER</b>                    |      |      |              |
| Intermediate Nutrition Care              | NC   | A280 | 2            |
| Supervised Practice 1                    | NC   | A281 | 3            |
| Fitness and Exercise Testing             | KIN  | A281 | 3            |
| <b>Total:</b>                            |      |      | <b>31-33</b> |

## RECOMMENDATION

Combine the Nutrition and Fitness Assistant Certificate with the Fitness Specialist Certificate.

# 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 Outcomes

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:

| Course             |      |      | Units      |
|--------------------|------|------|------------|
| Health Occupations | ALH  | A010 | .5         |
| Anatomy-Physiology | BIOL | A221 | 4          |
| <b>Subtotal:</b>   |      |      | <b>4.5</b> |

### Recommended preparation:

|                          |      |      |   |
|--------------------------|------|------|---|
| Technical Math*          | TECH | A040 | 3 |
| Intro to Info Sys & Appl | CIS  | A100 | 3 |

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

## Required Courses

| Course  |      |      | Units       |
|---|------|------|-------------|
| <b>FALL</b>   |      |      |             |
| Medical Terminology   | ALH  | A111 | 3           |
| Applied Pharmacology  | ALH  | A130 | 2           |
| Basic EEG   | NDT  | A110 | 4           |
| Resp Anatomy & Physiology   | RSPC | A185 | 3           |
| <b>SPRING</b>   |      |      |             |
| Human Diseases  | ALH  | A120 | 2           |
| Child Growth & Development  | HMDV | A180 | 3           |
| Advanced EEG  | NDT  | A115 | 4           |
| Intro to Neuroanatomy & Phys  | NDT  | A190 | 3           |
| Polysomnography Basics  | PSG  | A100 | 1           |
| <b>FALL</b>   |      |      |             |
| 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           |
| *Polysomnography Clinical 2   | PSG  | A175 | 1           |
| <i>*Required Clinical: course must be taken in sequence. Contact the department for additional information.</i> |      |      |             |
| <b>SPRING</b>   |      |      |             |
| 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           |
| <b>Total:</b>   |      |      | <b>48</b>   |
| <b>Total:</b>   |      |      | <b>52.5</b> |

### Suggested electives:

|  |           |      |   |
|--|-----------|------|---|
| Interpersonal Communication            | CMST      | A100 | 3 |
| Technical Writing & Critical Reasoning | ENGL      | A105 | 3 |
| Ethics                                 | PHIL/RLST | A120 | 3 |
| Conceptual Physics                     | PHYS      | A110 | 3 |
| Abnormal Psychology                    | PSYC      | A255 | 3 |
| Statistics for Behavioral Sci          | PSYC      | A160 | 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       |
|---|------|------|-------------|
| <b>FALL</b>   |      |      |             |
| 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           |
| *Polysomnography Clinical 2   | PSG  | A175 | 1           |
| <i>*Required Clinical: course must be taken in sequence. Contact the department for additional information.</i> |      |      |             |
| <b>SPRING</b>   |      |      |             |
| Child Growth & 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           |
|   |      |      | <b>26</b>   |
| <b>Total:</b>   |      |      | <b>81.5</b> |

## 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       |
|---|------|------|-------------|
| <b>FALL</b>   |      |      |             |
| 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          |
| *Polysomnography Clinical 2   | PSG  | A175 | 1           |
| <i>*Required Clinical: course must be taken in sequence. Contact the department for additional information.</i> |      |      |             |
| <b>SPRING</b>   |      |      |             |
| Child Growth & Development  | HMDV | A180 | 3           |
| Advanced EEG  | NDT  | A115 | 4           |
| 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           |
|   |      |      | <b>31</b>   |
| <b>Total:</b>   |      |      | <b>93.5</b> |

## RADIOLOGIC TECHNOLOGY

### 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. Clinical sites will be within a thirty mile radius of the campus. Transportation to and from the site is the responsibility of the student.

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. Clinical sites will be within a thirty mile radius of the campus. Transportation to and from the site is the responsibility of the student. 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 Outcomes

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:

The student must complete the general education requirements for an Associate in Science Degree requirements and the program prerequisites prior to acceptance to the program.

#### Program admission:

|                     |      |      |            |  |
|---------------------|------|------|------------|--|
| Health Occupations  | ALH  | A010 | .5         |  |
| Medical Terminology | ALH  | A111 | 3          |  |
| Anatomy-Physiology  | BIOL | A221 | 4          |  |
| <b>Subtotal:</b>    |      |      | <b>7.5</b> |  |

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

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

#### Required Courses

| Course  |      |      | Units |
|---|------|------|-------|
| <b>FIRST YEAR</b>   |      |      |       |
| <b>FALL</b>   |      |      |       |
| 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     |
| *Clinical Lab 2   | RADT | A172 | 1     |
| <i>*Required Clinical: course must be taken in sequence. Contact the department for additional information.</i> |      |      |       |
| <b>SPRING</b>   |      |      |       |
| Human Diseases  | ALH  | A120 | 2     |
| Rad Positioning/Critique 2  | RADT | A175 | 3     |
| Clinical Lab 3  | RADT | A176 | 5.5   |
| Radiographic Pathology  | RADT | A185 | 1     |
| <b>SUMMER</b>   |      |      |       |
| 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 |

\*Clinical Lab 6 RADT A276 1

*\*Required Clinical: course must be taken in sequence. Contact the department for additional information.*

#### SPRING

|                               |      |      |     |
|-------------------------------|------|------|-----|
| Radiologic Technology         | RADT | A216 | 2   |
| Rad Positioning/Critique 4    | RADT | A275 | 3   |
| Clinical Lab 7                | RADT | A277 | 6   |
| ARRT Board Prep               | RADT | A285 | 1   |
| Applied Physics & Fluoroscopy | RADT | A290 | 2.5 |
| Applied Physics & Fluoroscopy | RADT | A290 | 2.5 |

**57.5**

**Total: 65**

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

#### Suggested elective:

|        |           |      |   |
|--------|-----------|------|---|
| Ethics | PHIL/RLST | A120 | 3 |
|--------|-----------|------|---|

## 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.

**Continued on next page**

**Program Outcomes**

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 the general education requirements for an Associate in 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:**

| Course              |      |      | Units      |
|---------------------|------|------|------------|
| Health Occupations  | ALH  | A010 | .5         |
| Medical Terminology | ALH  | A111 | 3          |
| Anatomy-Physiology  | BIOL | A221 | 4          |
|                     |      |      | <b>7.5</b> |

**Required Courses**

| Course  |      |      | Units       |
|---|------|------|-------------|
| <b>FALL</b>   |      |      |             |
| Patient Care  | ALH  | A115 | 2.5         |
| Basic Microbiology  | BIOL | A114 | 2           |
| Introductory Chemistry  | CHEM | A110 | 5           |
| Resp Anatomy & Physiology   | RSPC | A185 | 3           |
| <b>SPRING</b>   |      |      |             |
| Human Diseases  | ALH  | A120 | 2           |
| Applied Pharmacology  | ALH  | A130 | 2           |
| Interpersonal Communication   | CMST | A100 | 3           |
| OR  |      |      | 3           |
| Public Speaking   | CMST | A110 |             |
| 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           |
| <b>SUMMER</b>   |      |      |             |
| Clinical Lab 2  | RSPC | A192 | 1           |
| <b>FALL</b>   |      |      |             |
| Polysomnography Basics  | PSG  | A100 | 1           |
| 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          |
| *Pulmonary Case Assessment  | RSPC | A278 | 1           |
| <i>*Required Clinical: course must be taken in sequence. Contact the department for additional information.</i> |      |      |             |
| <b>SPRING</b>   |      |      |             |
| 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           |
| <b>Total:</b>   |      |      | <b>62.5</b> |

*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.

## 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 Outcomes**

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:**

| Course                      |      |      | Units      |
|-----------------------------|------|------|------------|
| Health Occupations          | ALH  | A010 | .5         |
| Intro to Anatomy/Physiology | BIOL | A221 | 4          |
| Child Growth & Development  | HMDV | A180 | 3          |
| <b>Subtotal:</b>            |      |      | <b>7.5</b> |

**Required Courses**

| Course                       |      |      | Units |
|------------------------------|------|------|-------|
| <b>FALL</b>                  |      |      |       |
| 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 |
| Intro to Commun Disorders     | SLPA | A140 | 3 |
| Intro to Phonetics            | SLPA | A150 | 3 |

**FALL**

|                            |      |      |     |
|----------------------------|------|------|-----|
| Observe/Record Behavior    | EC   | A165 | 2   |
| Screen/Therapeutic Process | SLPA | A180 | 3   |
| Clinical Experience 1      | SLPA | A190 | 2 3 |

**SPRING**

|                           |      |      |   |
|---------------------------|------|------|---|
| Human Diseases            | ALH  | A120 | 2 |
| The Exceptional Child     | HMDV | A210 | 3 |
| Adult/Geriatric Disorders | SLPA | A200 | 2 |
| Clinical Experience 2     | SLPA | A250 | 5 |

**Total: 54**

## KINESIOLOGY & ATHLETICS DIVISION

### ASSOCIATE IN ARTS IN KINESIOLOGY FOR TRANSFER

**Required Core Courses: 16 units**

| Course                      |      |      | Units |
|-----------------------------|------|------|-------|
| Human Anatomy               | BIOL | A220 | 5     |
| Human Physiology            | BIOL | A225 | 5     |
| Introduction to Kinesiology | KIN  | A202 | 3     |

**Select a minimum of one course from any three of the following areas for a maximum of 3 units:**

**Aquatics:**

|                         |     |      |        |
|-------------------------|-----|------|--------|
| Aqua Fitness            | KIN | A130 | .5-1.5 |
| Swimming for Fitness    | KIN | A131 | 1-2.5  |
| Swimming                | KIN | A132 | .5-1.5 |
| Outrigger Canoeing      | KIN | A140 | .5-1.5 |
| *Surfing & Ocean Safety | KIN | A141 | 2      |

**Combatives:**

|                |     |      |        |
|----------------|-----|------|--------|
| Aikido         | KIN | A126 | .5-1.5 |
| Karate         | KIN | A127 | .5-1.5 |
| *T'ai Chi Chih | KIN | A129 | .5     |

**Fitness:**

|                           |     |      |        |
|---------------------------|-----|------|--------|
| Cardiovascular Fitness    | KIN | A105 | .5-2.5 |
| Weight Training           | KIN | A106 | .5-1.5 |
| Fitness Programs 1        | KIN | A107 | .5-3   |
| Strength & Conditioning 1 | KIN | A108 | .5-3   |
| Aerobics                  | KIN | A110 | .5-1.5 |
| Step Aerobics             | KIN | A111 | .5-1.5 |
| Triathlon Techniques      | KIN | A116 | 2.5    |

**Individual Sports:**

|                         |     |      |        |
|-------------------------|-----|------|--------|
| Hatha Yoga – Level 1    | KIN | A128 | .5-1.5 |
| *T'ai Chi Chih          | KIN | A129 | .5     |
| *Surfing & Ocean Safety | KIN | A141 | 2      |
| Tennis                  | KIN | A146 | .5-1.5 |
| Bowling                 | KIN | A155 | .5-1.5 |
| Golf                    | KIN | A153 | .5-1.5 |
| Rock Climbing           | KIN | A156 | .5-2   |
| Hatha Yoga – Level 2    | KIN | A228 | .5-1.5 |

**Team Sports:**

|            |     |      |        |
|------------|-----|------|--------|
| Badminton  | KIN | A145 | .5-1   |
| Basketball | KIN | A150 | .5-1.5 |

|            |     |      |        |
|------------|-----|------|--------|
| Soccer     | KIN | A152 | .5-1.5 |
| Volleyball | KIN | A154 | .5-1.5 |

**List A – Required (Select two): 6-10 units**

|                                    |      |       |   |
|------------------------------------|------|-------|---|
| Human Biology                      | BIOL | A125  | 3 |
| Introduction to Chemistry          | CHEM | A110  | 5 |
| General Chemistry A                | CHEM | A180  | 5 |
| First Aid and CPR                  | HLED | A112  | 2 |
| Introduction to Statistics         | MATH | A160  | 3 |
| Introduction to Statistics Honors  | MATH | A160H | 3 |
| Statistics for Behavioral Sciences | PSYC | A160  | 3 |
| Algebra-Based Physics: Mechanics   | PHYS | A120  | 4 |
| Calculus-Based Physics: Mechanics  | PHYS | A185  | 4 |

**Total Major Units: 22-25**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

Note: \* can only be taken to satisfy one area.

## 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.

*Continued on next page*

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            | KIN  | A270 | 3     |
| Movement Analysis             | KIN  | A272 | 3     |
| Sports Medicine               | KIN  | A273 | 3     |
| Sports Management             | KIN  | A279 | 3     |
| Fitness & Exercise Testing    | KIN  | A281 | 3     |
| Strength Conditioning/Theory  | KIN  | A280 | 3     |
| Fitness Specialist Internship | KIN  | A298 | 2-3   |

**Subtotal: 24-25**

### Select one (1) course from the following:

|                           |      |      |   |
|---------------------------|------|------|---|
| Nutrition, Fitness & Perf | HLED | A136 | 3 |
| Fitness Programs          | KIN  | A107 | 2 |
| Drugs & Sports            | KIN  | A271 | 2 |
| Exercise Physiology       | KIN  | A282 | 3 |

**2-3**

**Total: 26-28**

## ASSOCIATE DEGREE

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

## 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.

## PROFESSIONAL MARINER – LEVEL 1

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. 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:

1. Communicate verbally and in writing in a clear manner and with correct nautical protocol .
2. Identify maritime career paths along with required U.S. Coast Guard licensing requirements.
3. Demonstrate safe operation and maintenance of vessels.
4. Demonstrate prevention and safety response in First Aid, Personal Survival and Social Responsibility at sea, as well as fire prevention and response.

## CERTIFICATE OF ACHIEVEMENT

*All of the required courses must be completed with a minimum of "C" grade to receive the certificate.*

### 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         |
| <b>Subtotal:</b>                  |      |      | <b>15</b> |

**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         |
| Personal Health               | HLED | A100 | 3         |
| Internship Academy            | ITRN | A392 | 1-4       |
| Fitness Programs              | KIN  | A107 | .5-3      |
| Strength and Conditioning     | KIN  | A108 | .5-3      |
| Swimming for Fitness          | KIN  | A131 | .5-2.5    |
| Swimming                      | KIN  | A132 | .5-1.5    |
| Personal Leadership           | LEAD | A180 | 3         |
| Introduction to Sailing       | MARA | A147 | 1         |
| Introduction to Keel Boats    | MARA | A148 | 1         |
| Introduction to Ocean Sailing | MARA | A149 | 1         |
| <b>Subtotal:</b>              |      |      | <b>3</b>  |
| <b>Total:</b>                 |      |      | <b>18</b> |

### Advanced Level:

|                |      |      |   |
|----------------|------|------|---|
| Radar Observer | MARA | A157 | 2 |
|----------------|------|------|---|

Students having completed prior course requirements and seeking advanced-level electives may take:

Marine Basic Safety Training and Radar Observer are U.S. Coast Guard approved courses. Students with satisfactory evaluation will be qualified for a Certificate of Completion for U.S. Coast Guard license or credential endorsement. The Basic Safety Training endorsement may be added to a U.S. Coast Guard Merchant Mariners Credential or Deck Officer License. The Radar Observer endorsement may be added to any U.S. Coast Guard Deck Officer License.

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## MATHEMATICS & SCIENCES DIVISION

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### 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.

*Continued on next page*

**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 .

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

**A. Preliminary courses which should be taken in the first year:**

| Course                      |      |      | Units       |
|-----------------------------|------|------|-------------|
| <b>FALL</b>                 |      |      |             |
| Botany*                     | BIOL | A183 | 3           |
| OR                          |      |      |             |
| Botany for Gardeners        | OH   | A105 | 3           |
| Orientation to Horticulture | OH   | A090 | .5          |
| Knowing Your Soils          | OH   | A109 | 3           |
| Ornamental Trees            | OH   | A181 | 3           |
| <b>SPRING</b>               |      |      |             |
| Ornamental Shrubs           | OH   | A182 | 3           |
| <b>Subtotal:</b>            |      |      | <b>12.5</b> |

\*Transfer students should also take Biology A183L.

**B. Suggested second year sequence:**

Select twelve (12) units from the following:

| Course   |    |      | Units       |
|--|----|------|-------------|
| <b>FALL</b>                                      |    |      |             |
| Landscape Drafting                               | OH | A111 | 1           |
| Introduction to Tree Care                        | OH | A151 | 2           |
| Pest Control Applicators & Gardeners P.C.D. Cert | OH | A170 | 1           |
| Nursery Practices and Mgmt                       | OH | A184 | 3           |
| Plant Diseases                                   | OH | A185 | 1.5         |
| Interior Landscaping                             | OH | A187 | 2           |
| Intro to Landscape Design                        | OH | A285 | 3           |
| <b>SPRING</b>                                    |    |      |             |
| 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           |
|  |    |      | <b>12</b>   |
| <b>Total:</b>                                    |    |      | <b>24.5</b> |

**ASSOCIATE DEGREE**

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

**LITERATURE & LANGUAGE DIVISION**

**COMMUNICATION STUDIES**

**ASSOCIATE IN ARTS IN COMMUNICATION STUDIES FOR TRANSFER**

The Orange Coast College Associate in Arts in Communication Studies for transfer program provides students with communication skills that they can apply in personal, professional and global contexts. In these courses students will learn to improve their oral and written communication skills in the areas of critical thinking, organization, analysis, argumentation and presentation of information. Students will learn to improve their verbal and non-verbal interpersonal communication skills in the areas of listening, perception, self-concept, conflict resolution, intercultural and gender communication. These skills are developed in Communication Studies A100, A105, A110, A150, A155, A165, A170, A180, and A220.

Complete the following: 9 units:

| Course                       |      |      | Units |
|------------------------------|------|------|-------|
| *Public Speaking             | CMST | A110 | 3     |
| *Interpersonal Communication | CMST | A100 | 3     |
| *Essentials of Argumentation | CMST | A220 | 3     |

Complete 6 units, choosing from the courses below:

|  |                 |                 |              |
|--|-----------------|-----------------|--------------|
| *Readers Theatre & Oral Interpretation   | CMST            | A120            | 3            |
| *Forensics Workshop                      | CMST            | A150            | 3            |
| *Intercultural Communication             | CMST            | A155            | 3            |
| <del>*Men, Women and Communication</del> | <del>CMST</del> | <del>A165</del> | <del>3</del> |
| <del>*Nonverbal Communication</del>      | <del>CMST</del> | <del>A170</del> | <del>3</del> |
| *Mass Communication                      | CMST            | A180            | 3            |

Complete 3 units by choosing from a course not yet chosen from the above category or by choosing from the courses below:

|                              |           |      |   |
|------------------------------|-----------|------|---|
| Intrapersonal Communication  | COMM CMST | A105 | 3 |
| Communication *Nonverbal     | CMST/GNDR | A165 | 3 |
| Communication *Intercultural | CMST      | A170 | 3 |
| News Writing & Reporting     | JOUR      | A110 | 3 |
| Intro to Photography         | PHOT      | A120 | 3 |

Total Major Units: **18**

CSU or IGETC Breadth **37-39**

Transferable Electives to Satisfy 60 unit Requirement

Total Degree Units: **60**

## SOCIAL & BEHAVIORAL SCIENCES DIVISION

~~Pending Chancellor's Office approval~~  
**Chancellor's Office approved for Fall 2012**

### POLITICAL SCIENCE

#### ASSOCIATE IN ARTS IN POLITICAL SCIENCE FOR TRANSFER

The Political Science Department facilitates the success of general education students and political science majors by offering lower division courses in each of the sub-fields: American government, international relations, comparative politics, public law, and political theory. Political Science classes emphasize the importance of an informed citizenry, seek to instill the ability to analyze political phenomena in a critical way, and develop the communication skills to convey those analyses to others. The AA-T in political science is intended for political science majors who seek a bachelor's degree in a similar major at a CSU campus. Students completing the AA-T are guaranteed admission, but not necessarily to the major or campus of their choice.

Complete the following required 12 units:

| Course              |      |       | Units |
|---------------------|------|-------|-------|
| American Government | PSCI | A180  |       |
| OR                  | PSCI | A180H | 3     |

Complete 9 units, choosing from the courses below:

|                            |      |                    |   |
|----------------------------|------|--------------------|---|
| International Relations    | PSCI | A110               | 3 |
| Comparative Politics       | PSCI | A185               | 3 |
| Intro to Political Theory  | PSCI | A188               | 3 |
| Intro to Political Science | PSCI | A200               | 3 |
| Intro to Statistics        | PSYC | A160/<br>MATH A160 |   |

OR

|   |      |      |   |
|---|------|------|---|
| Intro to Political Science Research Methods | PSCI | A201 | 3 |
|---|------|------|---|

Complete 6 units, by choosing from a course not yet chosen from the above category or by choosing from the courses below:

|                                 |      |      |   |
|---------------------------------|------|------|---|
| Microeconomics                  | ECON | A170 | 3 |
| Macroeconomics                  | ECON | A175 | 3 |
| Women, Politics, and Inequality | GNDR | A130 | 3 |

|   |      |      |   |
|---|------|------|---|
| History of the United States to 1876    | HIST | A170 | 3 |
| History of the United States since 1876 | HIST | A175 | 3 |
| Survey of Current Issues                | PSCI | A101 | 3 |
| Intro to the American Legal System      | PSCI | A190 | 3 |

Total Major Units: **18**

CSU or IGETC Breadth **37-39**

Transferable Electives to Satisfy 60 unit Requirement

Total Degree Units: **60**

### PSYCHOLOGY

#### ASSOCIATE IN ARTS IN PSYCHOLOGY FOR TRANSFER

The field of psychology addresses the scientific study of behavior and mental processes of humans and animals. Learning more about human behavior through scientific research methods is the focus of many psychologists, while other psychologists apply principles of psychology in areas such as psychotherapy, applied behavioral analysis, and industrial/organizational psychology.

This psychology program offers a comprehensive view of psychology by offering a variety of courses that will support transfer in psychology, while providing a foundational understanding of the discipline of psychology, the methods psychologists use to learn about behavior, and applications of psychological information to the world around us.

Complete the following required 13 units:

##### Required Courses

| Course                                  |      |                                     | Units |
|---|------|-------------------------------------|-------|
| Introduction to Psychobiology           | PSYC | A100<br>or A100H                    | 3     |
| Introduction to Statistics              | PSYC | A160<br>or Math<br>or Math<br>A160H | 3     |
| Psychobiology                           | PSYC | A250                                | 3     |
| Introduction to Experimental Psychology | PSYC | A280                                | 4     |

*Continued on next page*

**Complete 3 units, choosing from the courses below:**

|                                   |      |      |   |
|-----------------------------------|------|------|---|
| Lifespan Developmental Psychology | PSYC | A130 | 3 |
| Principles of Behavior            | PSYC | A185 | 3 |
| Social Psychology                 | PSYC | A260 | 3 |

**Complete 3 units, by choosing from a course not yet chosen from the above category or by choosing from the courses below:**

|                           |      |      |   |
|---------------------------|------|------|---|
| Psychology of Personality | PSYC | A220 | 3 |
| Abnormal Psychology       | PSYC | A255 | 3 |
| Psychology of Learning    | PSYC | A270 | 3 |

**Total Major Units: 19**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

10. Demonstrate knowledge of community resources pertaining to recovery, mental health, and recovery models.
11. Are able to lead and/or supervise group activities.
12. Are able to assess risk and act appropriately in emergency situations.

**Program Outcomes**

Graduates will be employable as mental health workers in psychiatric services, acquired brain injury programs, alcohol and substance abuse programs, programs for the intellectually disabled, mental health services, physically disabled, and/or older adult services.

**Considerations for Scheduling Courses**

1. Start with Psychology A100, Introduction to Psychology. It is a pre-requisite for several required courses. You can take other required courses in the program that don't have the Psychology A100 pre-requisite, at the same time as Psychology A100.
2. Take the following courses as soon as possible: Psychology A125, Introduction to Counseling; Psychology A255, Abnormal Psychology; Psychology A235, Psychosocial Rehabilitation and Recovery; and Health Education A111 (CPR). These courses are pre-requisites for the Mental Health Worker Field Work Class.
3. Take Psychology A245, field work, as soon as you have taken its pre-requisite courses. It is desirable to be exposed to field work as soon as possible in the program.

**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 intellectually 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 intellectually challenged clients. Mental health workers serve child, adolescent, adult, or older adult populations. The mental health worker works with clients in the following potential need areas: Psychiatric services, alcohol and substance abuse programs, acquired brain injury programs, programs for the intellectually disabled, and/or older adult services programs.

**Program Objectives**

**Mental Health Workers:**

1. Establish effective therapeutic relationships with clients.
2. Demonstrate acceptable ethical standards and practices.
3. Effectively work with the treatment team to help clients in the program and in the activities that support their growth and development, which could include occupational, recreational, educational, or cognitive programs/activities.
4. Demonstrate appropriate cultural sensitivities and practices.
5. Recognize symptoms requiring psychiatric or medical intervention and communicate the information to supervisor.
6. Are able to formulate and document a rehabilitation, mental health, and recovery "goals and strengths assessment" for clients in the setting.
7. Demonstrate professional behavior in the mental health worker setting, including punctuality, appropriate work attire, and fulfilling assignments.
8. Demonstrate effective writing skills and complete appropriate reports in a clear, concise, and timely manner.
9. Demonstrate knowledge about the mental health setting, its programs, and its staff and their responsibilities.

**CERTIFICATE OF ACHIEVEMENT AND/OR ASSOCIATE IN SCIENCE DEGREE PROGRAM**

A Mental Health Worker Certificate of Achievement can be achieved with the 34.5 units of course work listed below. The Associate in Science Degree requires the Mental Health Worker courses, along with general education and graduation requirements.

**ASSOCIATE IN SCIENCE DEGREE PROGRAM**

**Required Courses**

| Course                             |      |      |  | Units       |
|------------------------------------|------|------|--|-------------|
| Cardiopulmonary Resuscitation      | HLED | A111 |  | .5          |
| Introduction to Psychology         | PSYC | A100 |  | 3           |
| Introduction to Counseling         | PSYC | A125 |  | 4           |
| Life Span Developmental Psychology | PSYC | A130 |  | 3           |
| Psych of Adult Development         | PSYC | A140 |  | 3           |
| Developmental Psychopathology      | PSYC | A150 |  | 3           |
| Psychosocial Rehab/Recovery        | PSYC | A235 |  | 3           |
| Field Work/Mental Health Workers   | PSYC | A245 |  | 3           |
| Psychobiology                      | PSYC | A250 |  | 3           |
| Abnormal Psychology                | PSYC | A255 |  | 3           |
| Social Psychology                  | PSYC | A260 |  | 3           |
| Psychology of Learning             | PSYC | A270 |  | 3           |
| <b>Total:</b>                      |      |      |  | <b>34.5</b> |

## 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 Outcomes

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

### Required Courses

| Course                     |      |      | Units    |
|----------------------------|------|------|----------|
| Intro to Religious Studies | RLST | A100 | 3        |
| World Religion             | RLST | A110 | 3        |
| Philosophy of Religion     | RLST | A115 | 3        |
| <b>Subtotal:</b>           |      |      | <b>9</b> |

### 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         |
|                          |      |      | <b>6</b>  |
| <b>Total:</b>            |      |      | <b>15</b> |

## SOCIOLOGY

### ASSOCIATE IN ARTS IN SOCIOLOGY FOR TRANSFER

The Sociology program provides students with a core curriculum that instills the knowledge, skills, and practices of sociological content, theory, and methodology. In addition to helping students meet general education and core requirements for transfer to an upper-level Sociology program or to fulfill co-curricular requirements for other disciplines, the courses are also designed to help students understand the structure, processes, and functions of society, the key theoretical approaches and insights that inform sociology, and the role of social theory and research methods in understanding society. Further, the program seeks to foster critical and systemic thinking and increase self-knowledge and awareness of the diversity of the human condition. There are two Associate in Arts degrees offered to meet various student needs: The Associate in Arts degree (Option 1) or the Associate in Arts for Transfer (AA-T). The Sociology AA-T is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### Complete the following required 9 units:

#### Required Courses

| Course                           |      |        | Units |
|----------------------------------|------|--------|-------|
| *Introduction to Statistics      | PSYC | A160   |       |
|                                  | MATH | A160/H | 3     |
| *Introduction to Sociology       | SOC  | A100/H | 3     |
| Introduction to Research Methods | SOC  | A200   | 3     |

### Complete 6 units, choosing from the courses below:

|                                 |          |        |   |
|---------------------------------|----------|--------|---|
| *Introduction to Gender Studies | GNDR     | A100   | 3 |
| *Intro to Marriage and Family   | SOC      | A110   | 3 |
| *Multicultural Behavior         | ANTH/SOC | A150   | 3 |
| *Analysis of Social Problems    | SOC      | A185/H | 3 |

### Complete 3 units, by choosing from a course not yet chosen from the above category or by choosing from the courses below:

|                                     |           |        |   |
|-------------------------------------|-----------|--------|---|
| *Cultural Anthropology              | ANTH      | A100/H | 3 |
| *Anthropology of Nonverbal Behavior | ANTH/SOC  | A105   | 3 |
| *Contemporary Ethnic America        | ETHS      | A100   | 3 |
| *The Ethnic Family                  | ETHS/SOC  | A190   | 3 |
| *Women, Politics, and Inequality    | GNDR      | A130   | 3 |
| *Men, Women, and Communication      | GNDR/CMST | A165   | 3 |

**Total Major Units: 18**

**CSU or IGETC Breadth 37-39**

Transferable Electives to Satisfy 60 unit Requirement

**Total Degree Units: 60**

# TECHNOLOGY DIVISION

**Architectural Technology**

**Aviation Maintenance Technology**

**Aviation Pilot Training**

**Construction Technology**

**Electronics Technology**

**Heating, Ventilation, Air Conditioning and Refrigeration (HVACR)**

**Manufacturing Technology**

**Welding Technology**

**Required Courses**

| Course                         | Units |      |   |
|--------------------------------|-------|------|---|
| <b>FIRST SEMESTER</b>          |       |      |   |
| Arch Dwg/Desgn Visual 1        | ARCH  | A105 | 2 |
| Intro to Architecture          | ARCH  | A110 | 2 |
| BIM 1 for Architecture         | ARCH  | A155 | 2 |
| <b>SECOND SEMESTER</b>         |       |      |   |
| Arch Dwg/Desgn Theory 1        | ARCH  | A115 | 4 |
| Arch Const Documents           | ARCH  | A180 | 4 |
| Arch Dwg/Desgn Visual 2        | ARCH  | A205 | 3 |
| Architectural Tech Elective(s) | ARCH  |      | 2 |

**Selected Electives**

**Select two (2) units from the following list of courses:**

|  |      |      |   |
|--|------|------|---|
| Intro to Environmental Sustainability        | ARCH | A101 | 1 |
| CAD 2D for Architecture                      | ARCH | A150 | 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 | 2 |
| Design/Build for Architecture 2              | ARCH | A202 | 4 |

**Total: 19**

## 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, 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.

**ASSOCIATE DEGREES**

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

## ARCHITECTURAL DESIGN 2

**Program Outcomes**

In support of our Mission, our program has two incremental goals and four specialization certificates:

- The 2nd year Certificate of Achievement in Architectural Design 2 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.

**CERTIFICATE OF ACHIEVEMENT**

**Required prerequisite:**

Architectural Design 1 Certificate of Achievement

**Required Courses**

| Course                                | Units |      |          |
|---------------------------------------|-------|------|----------|
| <b>FALL</b>                           |       |      |          |
| Environmental Design Systems          | ARCH  | A185 | 4        |
| Arch Dwg/Desgn Theory 2               | ARCH  | A215 | 4        |
| <b>Architectural Tech Elective(s)</b> |       |      | <b>2</b> |

## ARCHITECTURAL DESIGN 1

**Program Outcome**

In support of our Mission, our program has two incremental goals and four specialization certificates:

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

**CERTIFICATE OF ACHIEVEMENT**

## SPRING

|                                       |      |      |          |
|---------------------------------------|------|------|----------|
| Building Materials & Systems          | ARCH | A220 | 4        |
| Arch Dwg/Design Theory 3              | ARCH | A230 | 5        |
| <b>Architectural Tech Elective(s)</b> |      |      | <b>2</b> |

**Subtotal:** 21

### 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 | 2 |
| Design/Build for Architecture 2              | ARCH | A202 | 4 |

**Total:** 40

### Other suggested courses:

|                             |           |      |   |
|-----------------------------|-----------|------|---|
| 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 |

## ASSOCIATE DEGREES

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

## DESIGN SPECIALIZATION

Specialization Certificates are designed to give Architectural Technology majors a focus within their major and to give non-major students and professionals the opportunity to gain skills in one of four areas within the context of Architecture & Environmental Design:

## DESIGN/BUILD

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### Program Outcomes

In support of our Mission, our program has two incremental goals and four specialization certificates:

1. The Design/Build specialization certificate prepares students to design, develop, and construct small, sustainable projects.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                          |      |      | Units |
|---------------------------------|------|------|-------|
| Arch Dwg/Design Visual 1        | ARCH | A105 | 2     |
| BIM 1 for Architecture          | ARCH | A155 | 2     |
| Arch Const Documents            | ARCH | A180 | 4     |
| Design/Build for Architecture 2 | ARCH | A202 | 4     |

**Total:** 17

### Select one of the following courses:

|                         |       |      |   |
|-------------------------|-------|------|---|
| Furniture Making/Design | CONST | A116 | 4 |
| Building Construction   | CONST | A185 | 5 |

**Total:** 16-17

## DIGITAL FABRICATION FOR ARCHITECTURE

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### Program Outcomes

In support of our Mission, our program has two incremental goals and four specialization certificates:

1. The Digital Fabrication specialization certificate prepares students to design, develop, and construct three-dimensional environmental design installations and objects using digital fabrication tools.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                          |      |      | Units |
|---------------------------------|------|------|-------|
| Arch Dwg/Design Visual 1        | ARCH | A105 | 2     |
| 3-D Modeling: Rhino             | ARCH | A162 | 2     |
| Fabrication 1 for Architecture  | ARCH | A171 | 2     |
| Fabrication 2 for Architecture  | ARCH | A172 | 2     |
| Design/Build for Architecture 1 | ARCH | A201 | 2     |

### Repeat the following course:

|                                 |      |      |   |
|---------------------------------|------|------|---|
| Design/Build for Architecture 1 | ARCH | A201 | 2 |
|---------------------------------|------|------|---|

**Total:** 12

## INTEGRATED PROJECT DESIGN

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### Program Outcomes

In support of our Mission, our program has two incremental goals and four specialization certificates:

1. The Integrated Project Design specialization certificate prepares students to design, develop, virtually construct and administrate multi-disciplinary projects using BIM technology.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                          |      |      | Units |
|---------------------------------|------|------|-------|
| BIM 1 for Architecture          | ARCH | A155 | 2     |
| BIM 2 for Architecture          | ARCH | A156 | 2     |
| BIM Structural/MEP              | ARCH | A157 | 2.5   |
| BIM Project Management          | ARCH | A158 | 2.5   |
| Arch Draft & Const Documents    | ARCH | A180 | 4     |
| Design/Build for Architecture 2 | ARCH | A202 | 4     |

*Note: Arch A105 and Arch A155 are prerequisites for Arch A180.*

**Total:** 17

## SUSTAINABLE DESIGN

### Program Outcomes

In support of our Mission, our program has two incremental goals and four specialization certificates:

1. The Sustainable Design specialization certificate prepares students to design, develop, analyze, and promote sustainable environmental design practices.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                                |      |      | Units |
|---------------------------------------|------|------|-------|
| Intro to Environmental Sustainability | ARCH | A101 | 1     |
| Arch Const Documents                  | ARCH | A180 | 4     |
| Environmental Design Systems          | ARCH | A185 | 4     |
| Building Materials & Systems          | ARCH | A220 | 4     |

#### Select one of the following courses:

|                      |      |      |   |
|----------------------|------|------|---|
| Horticulture Science | OH   | A100 | 3 |
| Human Ecology        | ECOL | A100 | 3 |

*Note: Arch A105 and Arch A155 are prerequisites for Arch A180.*

**Total: 16**

## AVIATION MAINTENANCE TECHNOLOGY

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

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

The 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.

### 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 AIRFRAME 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.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                       |     |      | Units |
|------------------------------|-----|------|-------|
| <b>FALL</b>                  |     |      |       |
| General Maintenance Records  | AMT | A150 | 4     |
| General Electricity          | AMT | A151 | 3     |
| Gen Airframe/Powerplant Fuel | AMT | A152 | 2     |
| Gen Mat/Processes/Weld       | AMT | A153 | 3     |
| Gen Wgt/Bal/Math/Physcs      | AMT | A154 | 3     |

## SPRING

|                                  |     |      |     |
|----------------------------------|-----|------|-----|
| Airframe & Powerplant Elec       | AMT | A160 | 6   |
| Airframe & Powerplant Instrument | AMT | A180 | 2.5 |
| Airframe Sheet Mtl/Cmposte       | AMT | A161 | 5.5 |
| Airframe Asmbly/Rig/ECS          | AMT | A162 | 3   |
| Airframe Comm/Nvgation Sys       | AMT | A181 | 2   |
| Gen Blueprint Read/Drft          | AMT | A155 | 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.

### 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 POWERPLANT 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.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                           | Units |      |     |
|----------------------------------|-------|------|-----|
| <b>FALL</b>                      |       |      |     |
| Gen Maintenance Records          | AMT   | A150 | 4   |
| General Electricity              | AMT   | A151 | 3   |
| Gen Airfrm/Pwrplnt Fuel          | AMT   | A152 | 2   |
| Gen Mat/Processes/Weld           | AMT   | A153 | 3   |
| Gen Wgt/Bal/Math/Phycs           | AMT   | A154 | 3   |
| <b>SPRING</b>                    |       |      |     |
| Airframe & Pwrplnt Elec          | AMT   | A160 | 6   |
| Airframe & Powerplant Instrument | AMT   | A180 | 2.5 |
| Gen Blueprint Read/Drft          | AMT   | A155 | 2   |
| <b>FALL</b>                      |       |      |     |
| Powerplant Recip Engines         | AMT   | A170 | 6   |
| Powerplant Fuel/Mtr/Exhst        | AMT   | A171 | 4   |

## SPRING

|                            |     |      |     |
|----------------------------|-----|------|-----|
| Powerplant Ignition Sys    | AMT | A174 | 2.5 |
| Pwrplnt Prplr/Lube Sys     | AMT | A172 | 4   |
| Powerplant Gas Turbine Eng | AMT | A173 | 6   |

**Total: 50**

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.

### 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 AIRFRAME & POWERPLANT 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.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                           | Units |      |     |
|----------------------------------|-------|------|-----|
| <b>FALL</b>                      |       |      |     |
| Gen Maintenance Records          | AMT   | A150 | 4   |
| General Electricity              | AMT   | A151 | 3   |
| Gen Airfrm/Pwrplnt Fuel          | AMT   | A152 | 2   |
| Gen Mat/Processes/Weld           | AMT   | A153 | 3   |
| Gen Wgt/Bal/Math/Phycs           | AMT   | A154 | 3   |
| <b>SPRING</b>                    |       |      |     |
| Airframe & Pwrplnt Elec          | AMT   | A160 | 6   |
| Airframe & Powerplant Instrument | AMT   | A180 | 2.5 |
| Airframe Sheet Mtl/Cmposte       | AMT   | A161 | 5.5 |
| Airframe Asmbly/Rig/ECS          | AMT   | A162 | 3   |
| Airframe Comm/Nvgation Sys       | AMT   | A181 | 2   |
| Gen Blueprint Read/Drft          | AMT   | A155 | 2   |
| <b>SUMMER</b>                    |       |      |     |
| Arfrm Hyd & Lndg Gear            | AMT   | A163 | 4.5 |
| <b>FALL</b>                      |       |      |     |
| Powerplant Recip Engines         | AMT   | A170 | 6   |
| Powerplant fuel/Mtr/Exhst        | AMT   | A171 | 4   |

*Continued on next page*

## SPRING

|                            |     |      |     |
|----------------------------|-----|------|-----|
| Powerplant Ignition Sys    | AMT | A174 | 2.5 |
| Powerplant Pprlr/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.

### Program Outcomes

Students successfully completing the Orange Coast College Aviation Maintenance Technology program will have the necessary skills and training for AVIONICS proficiency 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.

## CERTIFICATE OF SPECIALIZATION

### Required Courses

| Course                           |     |      | Units     |
|----------------------------------|-----|------|-----------|
| <b>FALL</b>                      |     |      |           |
| General Electricity              | AMT | A151 | 3         |
| Aircraft Avionics Circuits       | AMT | A182 | 4         |
| Avionics Rules & Regulations     | AMT | A188 | 1.5       |
| <b>SPRING</b>                    |     |      |           |
| Airframe Comm/Nvgation Sys       | AMT | A181 | 2         |
| Airframe & Powerplant Instrument | AMT | A180 | 2.5       |
| Aircraft Avionics Systems        | AMT | A184 | 4         |
| <b>Total:</b>                    |     |      | <b>17</b> |

## ASSOCIATE DEGREE

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

## HELICOPTER THEORY AND MAINTENANCE

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

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

### Program Outcomes

Students successfully completing the Orange Coast College Aviation Maintenance Technology program will have the necessary skills and training for HELICOPTER MAINTENANCE proficiency 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.

## CERTIFICATE OF SPECIALIZATION

### Required Courses

| Course                 |     |      | Units    |
|------------------------|-----|------|----------|
| <b>FALL</b>            |     |      |          |
| Theory and Operations  | AMT | A140 | 3        |
| <b>SPRING</b>          |     |      |          |
| Helicopter Maintenance | AMT | A290 | 4        |
| <b>Total:</b>          |     |      | <b>7</b> |

## AVIATION PILOT TRAINING

This program of study academically prepares men and women of all ages for entry into the world of commercial aviation. In addition to airline flying many positions are available worldwide for trained commercial pilots. Businesses large and small hire corporate pilots for executive transport. Government agencies, both federal and state, hire commercial pilots for law enforcement, land management, wildlife management and staff logistics. Pilots are also in demand for fire suppression, emergency medical transportation and charter.

The curriculum is designed for students with no flying experience. Courses will systematically prepare individuals academically for the certificates and ratings required to operate aircraft as a commercial pilot. In addition, flight lab courses are offered as suggested electives enabling the student to complete all aspects of their training under the auspices of the college and to accrue the flight hours necessary for licensing as a commercial pilot.

The course of study can be tailored to individual requirements. The small business owner who only needs to use an aircraft for personal transportation can end their training with the Private Pilot Certificate of Achievement (semester 1) or continue on through semester 2 and preparation for the Instrument rating. A student seeking a career as a professional pilot would progress through the curriculum to earn a Commercial Pilot Certificate of Specialization along with a Turbine Transition Skill Certificate. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61 and Part 141. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus.

## Program Outcomes

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

In addition, Students will develop the analytical and critical thinking skills necessary for completion of aviation ground school academic courses giving them the background knowledge necessary to enter the air transportation industry as professionals in non-flying occupations.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course  |     |      | Units     |
|---|-----|------|-----------|
| <b>Required Courses</b>                         |     |      |           |
| <b>Required Courses</b>                         |     |      |           |
| Private Pilot Ground School                     | APT | A130 | 5         |
| Aviation-Navigation                             | APT | A132 | 3         |
| Aviation-Meteorology                            | APT | A133 | 3         |
| Instrument Ground School                        | APT | A134 | 3         |
| Aerodynamics                                    | APT | A138 | 3         |
| Commercial Pilot Ground School                  | APT | A139 | 3         |
| Advanced Aircraft & Engines                     | APT | A146 | 3         |
| Basic Air Transportation                        | APT | A180 | 3         |
| <b>Select six (6) units from the following:</b> |     |      |           |
| Introduction to Airline Operations              | APT | A115 | 3         |
| Private Pilot Flight Lab                        | APT | A120 | 1         |
| Instrument Pilot Flight Lab                     | APT | A121 | 1         |
| Advanced Private Pilot Flight Lab               | APT | A123 | 1         |
| Commercial Pilot Flight Lab                     | APT | A124 | 1         |
| Flight Instructor Ground School                 | APT | A140 | 3         |
| Turbine Transition                              | APT | A145 | 3         |
| Human Factors/Crew Mgmt                         | APT | A192 | 3         |
| <b>Total:</b>                                   |     |      | <b>32</b> |

## 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 Outcomes

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, performance, weight and balance and crew resource management. Courses are intended to explore the topics that meet the aeronautical knowledge requirements for the Airline Transport Pilot rating or Flight Engineer Basic knowledge test. The student will also become familiar with crew resource management and how it is utilized in the cockpits of commuter, corporate, and airline flight decks.

### Program Outcomes

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

In addition, Students will develop the analytical and critical thinking skills necessary for completion of aviation ground school academic courses giving them the background knowledge necessary to enter the air transportation industry as professionals in non-flying occupations.

## CERTIFICATE OF SPECIALIZATION

### Required Courses

| Course                                 |     |      | Units    |
|--|-----|------|----------|
| Aerodynamics                           | APT | A138 | 3        |
| Turbine Aircraft Systems               | APT | A145 | 3        |
| Human Factors/Crew Resource Management | APT | A192 | 3        |
| <b>Total:</b>                          |     |      | <b>9</b> |

## PRIVATE PILOT

### Program Outcomes

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

In addition, Students will develop the analytical and critical thinking skills necessary for completion of aviation ground school academic courses giving them the background knowledge necessary to enter the air transportation industry as professionals in non-flying occupations.

This course meets the aeronautical knowledge requirements of Federal Aviation Regulation (FAR) Part 61.105.

## CERTIFICATE OF SPECIALIZATION

### Required Courses

| Course                      |     |      | Units    |
|-----------------------------|-----|------|----------|
| Private Pilot Ground School | APT | A130 | 5        |
| Aviation-Meteorology        | APT | A133 | 3        |
| <b>Total:</b>               |     |      | <b>8</b> |

### Suggested Electives

|                          |     |      |   |
|--------------------------|-----|------|---|
| Private Pilot Flight Lab | APT | A120 | 2 |
|--------------------------|-----|------|---|

## INSTRUMENT PILOT

### Program Outcomes

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

In addition, Students will develop the analytical and critical thinking skills necessary for completion of aviation ground school academic courses giving them the background knowledge necessary to enter the air transportation industry as professionals in non-flying occupations.

This course meets the aeronautical knowledge requirements of Federal Aviation Regulation (FAR) Part 61.65(b).

### CERTIFICATE OF SPECIALIZATION

#### Required Courses

| Course                   |     |      | Units    |
|--------------------------|-----|------|----------|
| Aviation-Navigation      | APT | A132 | 3        |
| Instrument Ground School | APT | A134 | 3        |
| <b>Total:</b>            |     |      | <b>6</b> |

#### Suggested Electives

|                                   |     |      |   |
|-----------------------------------|-----|------|---|
| Instrument Pilot Flight Lab       | APT | A121 | 2 |
| Private Pilot Flight Lab          | APT | A120 | 2 |
| Advanced Private Pilot Flight Lab | APT | A124 | 2 |

## COMMERCIAL PILOT

A program of study that helps prepare a pilot, already in possession of a Private Pilot license flight instruction to meet the licensing requirements Commercial Pilot as well as preparing the student for the Commercial Pilot Knowledge Test. This course meets the aeronautical knowledge requirements of Federal Aviation Regulation (FAR) Part 61.125

Part 61.125

### Program Outcomes

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

In addition, Students will develop the analytical and critical thinking skills necessary for completion of aviation ground school academic courses giving them the background knowledge necessary to enter the air transportation industry as professionals in non-flying occupations.

### CERTIFICATE OF SPECIALIZATION

#### Required Courses

| Course                         |     |      | Units     |
|--------------------------------|-----|------|-----------|
| Aerodynamics                   | APT | A138 | 3         |
| Commercial Pilot Ground School | APT | A139 | 3         |
| Advanced Aircraft and Engines  | APT | A146 | 3         |
| Basic Air Transportation       | APT | A180 | 3         |
| <b>Total:</b>                  |     |      | <b>12</b> |

#### Suggested Electives

|                             |     |      |   |
|-----------------------------|-----|------|---|
| Commercial Pilot Flight Lab | APT | A122 | 2 |
|-----------------------------|-----|------|---|

## ASSOCIATE DEGREE

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

## CONSTRUCTION TECHNOLOGY

The Construction Technology program has courses that can be divided into two major areas of emphasis: Residential Trades and Construction Management. Due to the vast diversity of occupations and areas of specialization within the construction industry and recognizing that individual student needs will be as diverse, a Certificate of Achievement can be designed that satisfies those specific needs. Completion of a certificate program satisfies the major requirement for the Associate in Science degree. Certificates of Achievement and Specialization can be completed in one to two semesters.

### Program Outcomes

1. Demonstrate the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades
2. Be prepared to work in the construction field in positions including, but not limited to work areas such as inspection, and hands-on skilled trades people

## CONSTRUCTION TECHNOLOGY

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         |
| Specialty Crafts             | CNST | A240 | 5         |
| <b>Total:</b>                |      |      | <b>25</b> |

## ASSOCIATE DEGREE

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

## RESIDENTIAL ELECTRICAL

### Program Outcomes

Upon successful completion of the Construction Specialist program, students will:

1. Demonstrate the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades
2. 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

### 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         |
| <b>Total:</b>                 |      |      | <b>14</b> |

#### Suggested electives:

|   |      |      |   |
|---|------|------|---|
| Electronics for Electrician's Structured Wiring | CNST | A150 | 4 |
| National Electrical Code                        | CNST | A156 | 2 |
| Photovoltaic System Installation                | CNST | A157 | 4 |
| Photovoltaic System Installation II             | CNST | A158 | 4 |
| Intro to Construction                           | CNST | A170 | 3 |
| Supervision & Project Mgmt                      | CNST | A250 | 3 |
| Tech Math                                       | TECH | A040 | 3 |

\*EMS A100 may be substituted for HLED A112

## 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.

### Program Outcomes

Upon successful completion of the Construction Specialist program, students will:

1. Demonstrate the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades
2. 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

## RESIDENTIAL CONSTRUCTION DEVELOPMENT SECOND 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.

### Program Outcomes

1. Demonstrate the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades
2. 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

## RESIDENTIAL CONSTRUCTION DEVELOPMENT THIRD AWARD

### Program Outcomes

1. Demonstrate the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades
2. 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

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                         |      |      | Units |
|--------------------------------|------|------|-------|
| Cabinet Making                 | CNST | A114 | 4     |
| Drywall                        | CNST | A154 | 2     |
| 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     |
| 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     |
| Plumbing 2                     | CNST | A266 | 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

### 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.

### Program Outcomes

Upon successful completion of the Construction Specialist program, students will:

1. Demonstrate the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades
2. 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.

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                        |      |      | Units        |
|-------------------------------|------|------|--------------|
| Cabinet Making                | CNST | A114 | 4            |
| Construction Safety/CAL OSHA  | CNST | A165 | 3            |
| Building Construction 1       | CNST | A180 | 5            |
| Blueprint Reading & Drafting  | CNST | A190 | 4            |
| Concrete Construction         | CNST | A210 | 5            |
| Specialty Crafts              | 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            |
| Building Construction 2       | CNST | A185 | 5            |
| Masonry Construction          | CNST | A260 | 3 5          |
| <b>Subtotal:</b>              |      |      | <b>51 53</b> |

#### Select three (3) units from the following:

|                            |      |      |              |
|----------------------------|------|------|--------------|
| Building Code & Law        | CNST | A195 | 3            |
| Construction Estimating    | CNST | A220 | 3            |
| Construction Inspection    | CNST | A230 | 3            |
| Supervision & Project Mgmt | CNST | A250 | 3            |
|                            |      |      | <b>3</b>     |
| <b>Total:</b>              |      |      | <b>54 56</b> |

### ASSOCIATE DEGREE

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

## RESIDENTIAL CONSTRUCTION

### DEPARTMENTAL CERTIFICATES

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

#### Program Outcomes

Upon successful completion of the Construction Specialist program, students will:

1. Demonstrate the knowledge, skills and experience to identify, assess, and participate in many entry-level construction trades
2. 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

### CERTIFICATES OF SPECIALIZATION

## CONCRETE & MASONRY

#### Required Courses

| Course                |      |      | Units        |
|-----------------------|------|------|--------------|
| Building Code & Law   | CNST | A195 | 3            |
| Concrete Construction | CNST | A210 | 5            |
| Masonry Construction  | CNST | A260 | 3 5          |
|                       |      |      | <b>11 13</b> |

## PLUMBING

#### Required Courses

| Course        |      |      | Units     |
|---------------|------|------|-----------|
| Solar Heating | CNST | A161 | 4         |
| Plumbing 1    | CNST | A265 | 4         |
| Plumbing 2    | CNST | A266 | 4         |
|               |      |      | <b>12</b> |

## 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. Students enrolled in the program 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 degree, Technologist, Engineers, Scientist and project management professionals. Because of the pervasive nature of electronics in our society students seeking or with earned Baccalaureate, Graduate and Post-Doctoral degrees take the courses in the Electronics Technology program for career enhancement.

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 in 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 by these diverse industry sectors the certifications include but are not limited to:

1. CompTia, Certified A+ Technician
2. International Society for Automation, Certified Control Systems Technician
3. ETA-International, Certified Electronics Technicians
4. ETA-I, Biomedical Electronics Technician – BMD
5. FCC, General Radio Operators License

## ELECTRO-MECHANICAL TECHNICIAN

### Program Outcomes

The Electro-Mechanical Certificate of Specialization outcomes are:

1. Inculcates the desire to study Science, Technology, Engineering and Mathematics (STEM) related courses.
2. Empowers the student by developing time management and study skills that increase productivity both on campus and in the workplace.
3. Develop the fundamentals skills for electro-mechanical production technicians: mechanics, electronic assembly, and computer skills.
4. Prepare the student to take the CompTIA A+ Computer Technician certification exam.

This Certificate reviews mathematics, arithmetic through trigonometry, in a conceptual, tactile, manner that, helps the student realize the real-world, workplace, value of developing these skills. Training is: interactive, project based, hands on, and in a contextual environment that emulates real world experience.

### CERTIFICATE OF SPECIALIZATION

### Required Courses

| Course                         |      |      | Units |
|--------------------------------|------|------|-------|
| *Elec Problem Solving          | ELEC | A047 | 3     |
| Intro to Robotics              | ELEC | A101 | 4     |
| Intro to Computer Installation | ELEC | A146 | 3     |
| *Electronics Laboratory        | ELEC | A170 | 1     |

**Total: 11**

Notes: \*

1. *College Algebra or Trigonometry with a grade of "B" or better may be substituted for ELEC A047.*
2. *1 unit of Electronics Laboratory ELEC A170 must be taken each semester.*

## ELECTRONICS RELIABILITY TECHNICIAN

### Program Outcomes

The Electronics Reliability Technician Certificate of Achievement prepares students for entry-level employment by developing the fundamentals skills for a technician's knowledge base: electricity, electronics, computer hardware, mechanics, robotics, assembly and test instruments. Training is: interactive, project based, hands on, and in a contextual environment that emulates real world experience.

### CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                               |      |      | Units     |
|--------------------------------------|------|------|-----------|
| <b>Electro-Mechanical Technician</b> |      |      | <b>11</b> |
| Direct Current Circuits              | ELEC | A150 | 3         |
| *Electronics Laboratory              | ELEC | A170 | 1         |
| Robotics 2                           | ELEC | A201 | 4         |
| Computer Installation & Repair       | ELEC | A246 | 3         |

**Total: 22**

Notes: \*

1. *College Algebra or Trigonometry with a grade of "B" or better may be substituted.*
2. *1 unit of Electronics Laboratory Elec A170 must be taken each semester.*

*Continued on next page*

## ELECTRONICS ENGINEERING TECHNICIAN

### Program Outcomes

The outcome of the Electronics Engineering Certificate is:

1. To prepare students for any electronics engineering-related field.
2. To prepare students to take the CET (Certified Electronics Technician) exam.

### CERTIFICATE OF ACHIEVEMENT

| Course   | Units            |
|--|------------------|
| <b>Electronics Reliability Technician Core</b> | <b>22</b>        |
| *Electronics Laboratory                        | ELEC A170 2 1    |
| Logic  | ELEC A135 3.5    |
| Alternating Current Circuits                   | ELEC A155 3      |
| Automation II Semiconductors                   |                  |
| Motor Control                                  | ELEC A260 4      |
| <b>Subtotal:</b>                               | <b>12 11.5</b>   |
| <b>Total</b>                                   | <b>34.5 33.5</b> |

Notes: \*-1 unit of Electronics Laboratory Elec A170 must be taken each semester.

### ASSOCIATE DEGREE ELECTRONICS TECHNOLOGY

The Certificate of Achievement and an Associate in Science (A.S. degree graduation requirements section of this catalog) is strongly recommended by the Industry Advisory Committee for entry level positions and career advancement.

## INDUSTRIAL AUTOMATION TECHNICIAN

### Program Outcomes

The Industrial Automation Certificate Program prepares students to do any of the following:

1. Perform entry-level maintenance, calibration, and diagnostic procedures on control systems.
2. Transfer to the International Society for Automation CCST (Certified Control Systems Technician) training program.
3. Transfer to the Fanuc Robotics CERT (Certified Electronic Robotics Technician) training program.
4. Transfer to 4-year Engineering Technology programs

### 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            |
|--|------------------|
| <b>Electronics Engineering Certificate</b> | <b>34.5 33.5</b> |
| *Electronics Laboratory                    | ELEC A170 2 1    |
| Robotics 2                                 | ELEC A201 4      |
| Automation 1                               | ELEC A253 4      |
| Programmable Logic Controllers             |                  |
| Internship                                 | ELEC A289 2      |
| <b>Subtotal:</b>                           | <b>12 11</b>     |
| <b>Total:</b>                              | <b>46.5 44.5</b> |

Notes: \*-1 unit of Electronics Laboratory Elec A170 must be taken each semester.

### ASSOCIATE DEGREE ELECTRONICS TECHNOLOGY

The Certificate of Achievement and an Associate in Science (A.S. degree graduation requirements section of this catalog) is strongly recommended by the Industry Advisory Committee for entry level positions and career advancement.

## HEATING, VENTILATION, AIR CONDITIONING AND 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.

### Program Outcomes

Students completing the HVACR Program will be able to:

1. Prepare students for entry-level employment as an HVACR Technician and for industry certifications.

### 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         |
| A/C Refrigeration Controls Non-Residential  | HVAC | A105 | 3         |
| Application/HVAC                            | HVAC | A106 | 3         |
| Pneumatic Controls 1                        | HVAC | A110 | 3         |
| Building Automation/EMS                     | HVAC | A140 | 3         |
| <b>Total:</b>                               |      |      | <b>30</b> |

\*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.

## 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.

### Program Outcomes

Machine precision manufactured parts using conventional lathes and milling machines and perform necessary measurements

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                      |      |      | Units     |
|-----------------------------|------|------|-----------|
| <b>FALL</b>                 |      |      |           |
| Intro to Machine Shop       | MACH | A100 | 3         |
| Lathe                       | MACH | A105 | 5         |
| Blueprint Reading           | MACH | A120 | 3         |
| Computations for Machinists | MACH | A121 | 3         |
| <b>SPRING</b>               |      |      |           |
| Milling Machine             | MACH | A110 | 5         |
| Production Machining Tech   | MACH | A115 | 2         |
| Intro to CNC Programming    | MACH | A130 | 3         |
| <b>Total:</b>               |      |      | <b>24</b> |

## ASSOCIATE DEGREE

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

## CNC MACHINE OPERATOR

The CNC Machine Operator certificate enhances the skills of students who have earned the Machinist certificate by providing that student with CNC machine operating skills and manual programming skills. The courses required for earning this certificate are designed to make the machine operator capable of setting up and manually programming a CNC machine tool. The CNC Machine Operator Professional Upgrade Certificate is specifically for the returning student with on-the-job machining experience.

### Program Outcomes

Set-up and operate CNC Lathes and Milling Machines.

## CERTIFICATE OF ACHIEVEMENT

### Required prerequisite:

Machinist Certificate of Achievement

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*Continued on next page*

**Required Courses**

| Course                    |      |      | Units     |
|---------------------------|------|------|-----------|
| <b>FALL</b>               |      |      |           |
| CNC Mach Operation 1      | MACH | A125 | 3         |
| <b>SPRING</b>             |      |      |           |
| CNC Mach Operation 2      | MACH | A126 | 2         |
| CNC Programming Mastercam | MACH | A133 | 3         |
|                           |      |      | <b>8</b>  |
| <b>Total:</b>             |      |      | <b>32</b> |

**ASSOCIATE DEGREE**

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

**CNC MACHINE 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).

**Program Outcomes**

Write part machine programs for controlling CNC lathes and milling machines

**CERTIFICATE OF ACHIEVEMENT**

**Required prerequisite:**

Machinist Certificate of Achievement 24

**Required Courses**

| Course                      |      |      | Units       |
|-----------------------------|------|------|-------------|
| <b>FALL</b>                 |      |      |             |
| CNC Mach Operation 1        | MACH | A125 | 3           |
| <b>SPRING</b>               |      |      |             |
| CNC Mach Operation 2        | MACH | A126 | 2           |
| Mastercam Solids            | MACH | A142 | 2           |
| <b>FALL</b>                 |      |      |             |
| CNC Programming-Mastercam 2 | MACH | A134 | 3           |
| Mastercam Lathe             | MACH | A141 | 1.5         |
|                             |      |      | <b>11.5</b> |
| <b>Total:</b>               |      |      | <b>35.5</b> |

**ASSOCIATE DEGREE**

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

**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.

**Program Outcomes**

Manufacture precision tooling for Dies, Molds, and Prototype 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 | 3             |
| Blueprint Reading                               | MACH | A120 | 3             |
| Computations for Machinists                     | MACH | A121 | 3             |
| Numerical Control Machine Oprtn                 | MACH | A125 | 3             |
| Intro to Numerical Control & 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             |
|   |      |      | <b>Total:</b> |
|   |      |      | <b>42</b>     |

**ASSOCIATE DEGREE**

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

**MANUFACTURING TECHNOLOGY UPGRADE**

**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.

**Program Outcomes**

Set-up and operate CNC Lathes and Milling Machines.

**CERTIFICATE OF SPECIALIZATION**

**Required Courses**

| Course  |      |      | Units    |
|---|------|------|----------|
| <b>FALL</b>                                     |      |      |          |
| CNC Mach Operation 1                            | MACH | A125 | 3        |
| Intro to Numerical Control & Manual Programming | MACH | A130 | 4        |
| <b>SPRING</b>                                   |      |      |          |
| CNC Mach Operation 2                            | MACH | A126 | 2        |
| <b>Total:</b>                                   |      |      | <b>9</b> |

**CNC PROGRAMMER**

This Professional Upgrade Certificate is designed to upgrade the skills and knowledge of the machinist or the CNC machine operator to the level of the CNC machine programmer. If you are a machinist and have minimal experience with CNC machines or machine language programming, you will first want to complete the CNC operator upgrade certificate. If you have both machining experience and CNC experience, the software used for the Machine 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 Machine Technology A126, Advanced CNC Machine Operation.*

**Program Outcomes**

Write part machine programs for controlling CNC lathes and milling machines.

**CERTIFICATE OF SPECIALIZATION**

**Required Courses**

| Course               |      |      | Units       |
|----------------------|------|------|-------------|
| CNC Prog-Mastercam 1 | MACH | A133 | 3           |
| CNC Prog-Mastercam 2 | MACH | A134 | 3           |
| Contract Education   |      |      | 2           |
| OR                   |      |      |             |
| CNC Mach Operation 2 | MACH | A126 |             |
| Mastercam Lathe      | MACH | A141 | 1.5         |
| Mastercam Solids     | MACH | A142 | 2           |
| <b>Total:</b>        |      |      | <b>11.5</b> |

**WELDING TECHNOLOGY**

Welding Technology is the application of the art and science of joining metals. Welding technologists have important roles in the fabrication and construction of nuclear and fossil fuel power plants, heavy equipment, agricultural machinery, petro-chemical plants, bridges, buildings, floating and underwater vessels, automobiles, appliances, and projects for national security. Specifically anything involving metals, from miniature electronic devices to sophisticated space projects, will require the skills of the expert welding technologist. These highly skilled members of the technological team apply practical working knowledge of welding processes, welding metallurgy and welding code standards in solving problems of welding design and production. The field is open to men and women. The OCC Welding Department is licensed to qualify (certify) welders to code standards. 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.

**Program Outcomes**

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.

Improve or develop additional proficiencies required for professional growth or advancement in their current employment.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                                |      |      | Units |
|---------------------------------------|------|------|-------|
| <b>FALL</b>                           |      |      |       |
| Technical Report Writing              | ENGL | A105 | 3     |
| OR                                    |      |      |       |
| Freshman Composition                  | ENGL | A100 | 3-4   |
| Arc & Oxy Welding                     | WELD | A100 |       |
| OR                                    |      |      |       |
| Arc & Oxy Welding (4)                 | WELD | A101 | 3     |
| Math & Fabrication Layout For Welders | WELD | A120 |       |
| <b>SPRING</b>                         |      |      |       |
| Advanced Welding (3)                  | WELD | A200 | 3-4   |
| OR                                    |      |      |       |
| Advanced Welding (4)                  | WELD | A201 | 3     |
| Welding Metallurgy                    | WELD | A230 |       |
| <b>FALL</b>                           |      |      |       |
| Blueprint Reading for Manufacturing   | MACH | A120 | 3     |
| Welding Inspe & Test                  | WELD | A210 | 4     |

*Continued on next page*

## SPRING

|                         |      |      |              |
|-------------------------|------|------|--------------|
| Blueprint Reading       | WELD | A180 | 3            |
| Welding Specs and Codes | WELD | A220 | 2            |
| <b>Total:</b>           |      |      | <b>27-29</b> |

### 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)

### Program Outcomes

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency required for employment.

## SKILL CERTIFICATE

### Required Courses

| Course             |      |      | Units          |
|--------------------|------|------|----------------|
| Arc & Oxy Welding  | WELD | A100 | 3              |
| OR                 |      |      |                |
| Arc & Oxy Welding  | WELD | A101 | 4              |
| Weld Testing Basic | WELD | A105 | .5             |
| <b>Total:</b>      |      |      | <b>3.5-4.5</b> |

This Certificate of Specialization certifies mastery of basic Shielded Metal Arc Welding (SMAW) Levels I, II, III, or IV.

## INTERMEDIATE WELDING (SMAW)

### Program Outcomes

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.

## SKILL CERTIFICATE

### Required Courses

| Course                        |      |      | Units          |
|-------------------------------|------|------|----------------|
| Arc & Oxy Welding             | WELD | A100 | 3              |
| OR                            |      |      |                |
| Arc & Oxy Welding             | WELD | A101 | 4              |
| Weld Testing Intermediate     | WELD | A106 | .5             |
| Arc & Oxy Weld Practice (1-2) | WELD | A115 | 1 min          |
| <b>Total:</b>                 |      |      | <b>4.5-5.5</b> |

This Certificate of Specialization certifies mastery of intermediate Shielded Metal Arc Welding (SMAW) Levels V or VI.

## ADVANCED WELDING (SMAW)

### Program Outcomes

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.
2. Improve or develop additional proficiencies required for professional growth or advancement in their current employment.

## CERTIFICATE OF SPECIALIZATION

### Required Courses

| Course                        |      |      | Units           |
|-------------------------------|------|------|-----------------|
| Arc & Oxy Welding             | WELD | A100 | 3               |
| OR                            |      |      |                 |
| Arc & Oxy Welding             | WELD | A101 | 4               |
| Weld Testing Advanced         | WELD | A107 | .5              |
| Arc & Oxy Welding Pract (1-2) | WELD | A115 |                 |
| OR                            |      |      | 3 min           |
| Arc & Oxy Weld Lab (1-2)      | WELD | A215 |                 |
| Advanced Welding              | WELD | A200 | 3               |
| OR                            |      |      |                 |
| Advanced Welding              | WELD | A201 | 4               |
| <b>Total:</b>                 |      |      | <b>9.5-11.5</b> |

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)

### Program Outcomes

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.
2. Improve or develop additional proficiencies required for professional growth or advancement in their current employment.

## CERTIFICATE OF SPECIALIZATION

**Required Courses**

| Course                        |      |      | Units           |
|-------------------------------|------|------|-----------------|
| Arc & Oxy Welding             | WELD | A100 | 3               |
| OR                            |      |      |                 |
| Arc & Oxy Welding             | WELD | A101 | 4               |
| Weld Testing Advanced         | WELD | A108 | .5              |
| Arc & Oxy Welding Pract (1-2) | WELD | A115 |                 |
| OR                            |      |      | 3 min           |
| Arc & Oxy Weld Lab (1-2)      | WELD | A215 |                 |
| Advanced Welding              | WELD | A200 | 3               |
| OR                            |      |      |                 |
| Advanced Welding              | WELD | A201 | 4               |
| <b>Total:</b>                 |      |      | <b>9.5-11.5</b> |

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)

**Program Outcomes**

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.
2. Improve or develop additional proficiencies required for professional growth or advancement in their current employment.

### CERTIFICATE OF SPECIALIZATION

**Required Courses**

| Course                        |      |      | Units            |
|-------------------------------|------|------|------------------|
| Arc & Oxy Welding             | WELD | A100 | 3                |
| OR                            |      |      |                  |
| Arc & Oxy Welding             | WELD | A101 | 4                |
| Weld Testing FCAW (.5)        | WELD | A109 | .5               |
| OR                            |      |      |                  |
| Weld Testing FCAW             | WELD | A110 |                  |
| Arc & Oxy Welding Pract (1-2) | WELD | A115 |                  |
| OR                            |      |      | 5 min            |
| Arc & Oxy Weld Lab (1-2)      | WELD | A215 |                  |
| Advanced Welding              | WELD | A200 | 3                |
| OR                            |      |      |                  |
| Advanced Welding              | WELD | A201 | 4                |
| <b>Total:</b>                 |      |      | <b>11.5-13.5</b> |

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)

**Program Outcomes**

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.
2. Improve or develop additional proficiencies required for professional growth or advancement in their current employment.

### 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      |
| <b>Total:</b>            |      |      | <b>5</b> |

This Certificate of Specialization certifies mastery of skills necessary for Gas Tungsten Arc Welding (GTAW) Level I.

## GAS METAL ARC WELDING (GMAW)

**Program Outcomes**

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.
2. Improve or develop additional proficiencies required for professional growth or advancement in their current employment.

### CERTIFICATE OF SPECIALIZATION

**Required Courses**

| Course                         |      |      | Units          |
|--------------------------------|------|------|----------------|
| Arc & Oxy Welding              | WELD | A100 | 3              |
| OR                             |      |      |                |
| Arc & Oxy Welding              | WELD | A101 | 4              |
| Weld Testing GMAW (.5)         | WELD | A102 | .5             |
| OR                             |      |      |                |
| Weld Testing GMAW (.5)         | WELD | A103 |                |
| Advanced Arc & Oxy Welding     | WELD | A200 | 3              |
| OR                             |      |      |                |
| Advanced Welding               | WELD | A201 | 4              |
| AND                            |      |      |                |
| Gas metal Arc Welding Training | WELD | A211 | 1              |
| <b>Total:</b>                  |      |      | <b>7.5-9.5</b> |

This Certificate of Specialization certifies mastery of skills necessary for Gas Metal Arc Welding (GMAW) Levels I, II, III, IV or V.

## PIPE

### Program Outcomes

Students successfully completing the Orange Coast College welding program will:

1. Acquire the necessary skills training for proficiency in taking a welding qualification test for certification which may be required for employment.
2. Improve or develop additional proficiencies required for professional growth or advancement in their current employment.

### CERTIFICATE OF SPECIALIZATION

### Required Courses

| Course                     |      |      | Units           |
|----------------------------|------|------|-----------------|
| Arc & Oxy Welding          | WELD | A100 | 3               |
| OR                         |      |      |                 |
| Arc & Oxy Welding          | WELD | A101 | 4               |
| Weld Testing Pipe          | WELD | A111 | .5              |
| Advanced Arc & Oxy Welding | WELD | A200 | 3               |
| OR                         |      |      |                 |
| Advanced Welding           | WELD | A201 | 4               |
| Pipe Welding and Adv GTAW  | WELD | A250 | 3               |
| <b>Total:</b>              |      |      | <b>9.5-11.5</b> |

This Certificate of Specialization certifies mastery of skills necessary or Pipe Levels I and/or II.

# VISUAL & PERFORMING ARTS DIVISION

## COMMERCIAL ART

## NARRATIVE ILLUSTRATION

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.

The Narrative Illustration option places its emphasis on a great variety of drawing and painting courses. The diversity of its curriculum may lead the student into career alternatives, such as illustration for books, including children's literature, magazines, entertainment publications, editorial illustration and corporate brochures. The emphasis is on hand made creations that can stand on their own but also be adapted to electronic media.

### Program Outcomes

Upon completion of this program graduates will be able to:

1. Create a series of illustrations in a variety of mediums demonstrating techniques and applications of current hands-on illustration techniques.
2. Demonstrate skill development in drawing, perspective, and various paint mediums.
3. 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

#### Required Courses

| Course                            |      |      | Units |
|-----------------------------------|------|------|-------|
| <b>FIRST SEMESTER</b>             |      |      |       |
| Color & Design 2-D                | ART  | A110 | 3     |
| Beginning Drawing                 | ART  | A120 | 3     |
| Introduction to Computer Graphics | DMAD | A181 | 3     |
| First Year Selected Electives     |      |      | 2-3   |

### SECOND SEMESTER

|                                 |      |      |   |
|---------------------------------|------|------|---|
| Life Drawing                    | ART  | A121 | 3 |
| Perspective                     | ART  | A125 | 3 |
| Story Illustration 1*           | ART  | A143 | 3 |
| Illustrator/Computer Graphics 1 | DMAD | A190 | 4 |

### THIRD SEMESTER

|                                |     |      |     |
|--------------------------------|-----|------|-----|
| Drawing 2                      | ART | A120 | 3   |
| Painting 1                     | ART | A130 | 3   |
| Figure Composition             | ART | A220 | 3   |
| Second Year Selected Electives |     |      | 2-3 |

### FOURTH SEMESTER

|                                |      |      |     |
|--------------------------------|------|------|-----|
| Story Illustration 1*          | ART  | A143 | 3   |
| Professional Studies           | ART  | A180 | 2.5 |
| Arts Internship                | THEA | A181 | 1-2 |
| Second Year Selected Electives |      |      | 2-3 |

\*Course must be taken two times

**Total: 43.5-47.5**

### Selected electives:

#### 1st year electives:

|                           |      |        |   |
|---------------------------|------|--------|---|
| Contemporary Art History  | ART  | A102   | 3 |
| Color & Design 3D         | ART  | A111   | 3 |
| Figure Composition        | ART  | A120   | 3 |
| Book Arts                 | ART  | A286   | 2 |
| Introduction to Business  | BUS  | A100/H | 3 |
| Children's Literature     | ENGL | A143/H | 3 |
| Introduction to marketing | MKTG | A100   | 3 |

#### 2nd year electives:

|                            |      |      |   |
|----------------------------|------|------|---|
| Color & Design 3D          | ART  | A111 | 3 |
| Product Illustration       | ART  | A118 | 3 |
| Life Painting 1            | ART  | A236 | 3 |
| Printmaking                | ART  | A170 | 3 |
| Watercolor                 | ART  | A263 | 3 |
| Cartooning                 | ART  | A269 | 3 |
| Photo Graphics w/Photoshop | DMAD | A193 | 4 |

### ASSOCIATE DEGREE

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

## COSTUME TECHNICIAN

The courses in this program provide the student with the practical knowledge and experience necessary to work in a costume shop building costumes for theatre and other entertainment arts. Students will also receive training in basic theatrical production practices and in backstage costuming skills as a dresser assisting actors during performances.

### Program Outcomes

Students will be able to:

1. Analyze, research and discuss a play in terms of technical costume requirements.
2. Collaborate with others to produce costumes for performance.
3. Work backstage during performances to maintain and repair costumes and assist actors with costume changes.

### Required Courses

| Course                                   |      |      | Units             |
|--|------|------|-------------------|
| Beg Clothing Techniques*                 | FASH | A100 | 3                 |
| Inter Clothing Techniques*               | FASH | A101 | 3                 |
| Industrial Sewing Techniques             | FASH | A102 | 2                 |
| Applied Textiles & Design                | FASH | A110 | 3                 |
| History of Fashion                       | FASH | A120 | 1.5               |
| Tailoring                                | FASH | A130 | 2                 |
| Alterations                              | FASH | A137 | 2                 |
| Flat Pattern Techniques                  | FASH | A150 | 3                 |
| Couture Techniques                       | FASH | A233 | 2                 |
| Draping                                  | FASH | A235 | 2                 |
| Stage Costuming                          | THEA | A178 | 3                 |
| Arts Internship                          | THEA | A181 | 2                 |
|  |      |      | <b>28.5</b>       |
| <b>And choose 4 Production courses:</b>  |      |      |                   |
| OCC Theatre Repertory                    | THEA | A141 | 3                 |
| OR                                       |      |      |                   |
| Summer Theatre Festival                  | THEA | A144 | 4                 |
| OR                                       |      |      |                   |
| Play Production                          | THEA | A171 | 2                 |
| OR                                       |      |      |                   |
| Elizabethan Play Workshop & Production   | THEA | A172 | 3                 |
| OR                                       |      |      |                   |
| Classic American Play Production         | THEA | A173 | 2                 |
| OR                                       |      |      |                   |
| Children's Theatre Workshop & Production | THEA | A174 | 2                 |
| OR                                       |      |      |                   |
| Rehearsal & Performance                  | THEA | A215 | 2                 |
|  |      |      | <b>8-12</b>       |
| <b>Total:</b>                            |      |      | <b>36.5- 40.5</b> |

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

### Suggested Electives:

|                            |      |      |   |
|----------------------------|------|------|---|
| Intro to Theatre           | THEA | A100 | 3 |
| Make-up                    | THEA | A177 | 3 |
| Intro to Computer Graphics | DMAD | A181 | 3 |

## 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 Outcomes

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

*Continued on next page*

**Required Courses**

| Course                          |      |      | Units |
|---------------------------------|------|------|-------|
| Pilates Mat Work                | DANC | A108 |       |
| OR                              |      |      | .5-2  |
| Kinesiology for Dance           | DANC | A119 | 3     |
| Tap 1                           | DANC | A125 | .5-2  |
| (Or)                            |      |      |       |
| Tap 2                           | DANC | A126 | .5-2  |
| (Or)                            |      |      |       |
| Tap 3-4                         | DANC | A146 | .5-2  |
| Jazz 3-4                        | DANC | A143 | .5-2  |
| Ballet 3-4                      | DANC | A144 | .5-2  |
| Modern Dance 3-4                | DANC | A145 | .5-2  |
| Improvisation                   | DANC | A150 | 1     |
| Pilates Apparatus & Mat Work 1  | DANC | A152 | .5-2  |
| Pilates Apparatus & Mat Work 2  | DANC | A153 | .5-2  |
| Dance Composition/Choreography/ | 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                      | DANC | A215 | 2     |

**Subtotal: 24.5-32**

**Select at least three (3) units of dance technique courses from at least two different dance styles:**

|                          |      |      |      |
|--------------------------|------|------|------|
| Latin Dance Styles       | DANC | A116 | .5-2 |
| Mid-Eastern Dance 1      | DANC | A130 | .5-2 |
| Intro to World Dance     | DANC | A133 | .5-2 |
| Flamenco Dance 1         | DANC | A135 | .5-2 |
| Classical Dance of India | DANC | A137 | .5-2 |
| Dances of Africa         | DANC | A138 | .5-2 |
| Flamenco Dance 2         | DANC | A147 | .5-2 |
| Mid-Eastern Dance 2      | DANC | A148 | .5-2 |

**3**

**Total: 27.5-35**

\*Must perform in one student dance concert.

**Suggested electives:**

|                             |      |      |   |
|-----------------------------|------|------|---|
| Interpersonal Communication | CMST | A100 | 3 |
| Anatomy & Physiology        | BIOL | A221 | 3 |
| Intro to Business           | BUS  | A100 | 3 |
| Personal Financial Success  | BUS  | A120 | 3 |
| Creativity for Children     | EC   | A131 | 3 |
| Personal Health             | HLED | A100 | 3 |
| Fitness & Health            | HLED | A270 | 3 |
| Child Growth & Development  | HMDV | A180 | 3 |
| Intro to Psychology         | PSYC | 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:

1. Demonstrate effective movement principles and the elements of space, shape, energy and rhythm/time.
2. 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.
3. Demonstrate proficiency in vocabulary, traditions, and cultural knowledge for three or more World Dance forms studied at OCC.
4. Communicate effectively through movement and words.
5. Demonstrate skills required to work in commercial or artistic areas of ethnic dance.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                    |      |      | Units |
|---------------------------|------|------|-------|
| Multicultural Behavior    | ANTH | A150 | 3     |
| Latin Dance Styles        | DANC | A116 | .5-2  |
| Mid-Eastern Dance 1       | DANC | A130 | .5-2  |
| Intro World Dance         | DANC | A133 | .5-2  |
| Flamenco Dance 1          | DANC | A135 | .5-2  |
| Classical Dance of India  | DANC | A137 | .5-2  |
| Dances of Africa          | DANC | A138 | .5-2  |
| Folk Dance                | DANC | A140 | .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   |
| Internship                | DANC | A215 | .5-2  |

**Subtotal: 20.5-34**

**Select two (2) units of ethnic dance technique from the following:**

|                     |      |      |      |
|---------------------|------|------|------|
| 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 2   | DANC | A102 | .5-2 |
| OR               |      |      |      |
| Modern Dance 3-4 | DANC | A145 | .5-2 |
| Ballet 1         | DANC | A110 | .5-2 |
| OR               |      |      |      |
| Ballet 2         | DANC | A111 | .5-2 |
| OR               |      |      |      |
| Ballet 3-4       | DANC | A144 | .5-2 |
| OR               |      |      |      |
| Jazz Dance 1     | DANC | A120 | .5-2 |
| OR               |      |      |      |
| Jazz Dance 2     | DANC | A121 | .5-2 |
| OR               |      |      |      |
| Jazz Dance 3-4   | DANC | A143 | 1-2  |
| OR               |      |      |      |
| Tap 1            | DANC | A125 | .5-2 |
| OR               |      |      |      |
| Tap 2            | DANC | A126 | .5-2 |
| OR               |      |      |      |
| Tap 3-4          | DANC | A146 | .5-2 |

**2**

**Total: 24.5-38**

*\*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 |
| Kinesiology for Dance           | DANC      | A119 | 3    |
| Pilates Apparatus & Mat Work    | DANC      | A128 | .5-2 |
| 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 Methodology            | DANC  | A129 | 2   |
| Pilates as a Profession        | DANC  | A151 | 1   |
| Pilates Apparatus & Mat Work 1 | DANC  | A152 | 2   |
| Pilates Apparatus & Mat Work 2 | DANC  | A153 | 2   |
| Pilates 3-4                    | DANC  | A208 | 1.5 |
| Internship                     | DANC  | A215 | 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   |
| Intro to Adapted P E           | KIN  | A201 | 2.5 |
| Fitness & Health               | KIN  | A270 | 3   |
| Movement Analysis              | KIN  | A272 | 3   |
| Strength & Conditioning/Theory | KIN  | A280 | 3   |

**Continued on next page**

## DIGITAL MEDIA ARTS AND DESIGN

This program presents a concentrated course of study in the field of digital media arts and design. 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.

Courses emphasize the process and problem-solving in conjunction with visual design issues. DMAD courses provide broad-based entry level training for a variety of industries.. Students are introduced to a broad range of media, including 2-D and 3-D design, animation, illustration, painting, photography, video, music, sound recording, as well as strategies and the techniques required to incorporate these areas into print, websites, video and DVD output.

## DIGITAL GRAPHICS PRODUCTION

### Program Outcomes

Students will be able to:

1. Demonstrate skill in design utilizing industry standard graphics software.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course   |      |      | Units     |
|--|------|------|-----------|
| Introduction to Computer Graphics                    | DMAD | A181 | 3         |
| Graphic Design                                       | DMAD | A182 | 4         |
| Designing for Print                                  | DMAD | A183 | 4         |
| Illustration & Computer Graphics w/Adobe Illustrator | DMAD | A190 | 4         |
| Photography and Graphics w/Photoshop                 | DMAD | A193 | 4         |
| <b>Total</b>   |      |      | <b>19</b> |

### Recommended:

|                              |      |      |   |
|------------------------------|------|------|---|
| Color & Design 2-D           | ART  | A110 | 3 |
| Lettering/Digital Typography | DMAD | A115 | 4 |

## ASSOCIATE DEGREE

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

## GRAPHIC DESIGN

### Program Outcomes

Students will be able to:

1. Demonstrate skill in design utilizing industry standard graphics 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

### Required Courses

| Course                       |      |      | Units     |
|------------------------------|------|------|-----------|
| <b>FIRST SEMESTER</b>        |      |      |           |
| Color & Design 2-D           | ART  | A110 | 3         |
| Freehand Drawing             | ART  | A120 | 3         |
| Intro to Computer Graphics   | DMAD | A181 | 3         |
| <b>SECOND SEMESTER</b>       |      |      |           |
| Lettering/Digital Typography | DMAD | A115 | 4         |
| History of Graphic Design    | DMAD | A151 | 3         |
| Graphic Design               | DMAD | A182 | 4         |
| <b>THIRD SEMESTER</b>        |      |      |           |
| Illus & Computer Graphics 1  | DMAD | A190 | 4         |
| Photo Graphics w/Photoshop1  | DMAD | A193 | 4         |
| Web Design/Artists Web Dsgnr | DMAD | A200 | 4         |
| <b>FOURTH SEMESTER</b>       |      |      |           |
| Rapid Illustration           | DMAD | A117 | 4         |
| Designing for Print          | DMAD | A183 | 4         |
| 2-D Animation                | DMAD | A280 | 4         |
| <b>Subtotal:</b>             |      |      | <b>44</b> |

### Additional course taken at any point:

|               |      |      |           |
|---------------|------|------|-----------|
| Internship    | DMAD | A202 | 2         |
| <b>Total:</b> |      |      | <b>46</b> |

### Suggested electives:

|                                      |      |      |   |
|--------------------------------------|------|------|---|
| Color & Design 3-D                   | ART  | A111 | 3 |
| Application of Color Theory          | ART  | A112 | 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 |
| Cascading Style Sheets for Web Pages | CIS  | A129 | 2 |
| JavaScript 1                         | CIS  | A171 | 2 |
| Photo Graphics w/Photoshop 2         | DMAD | A195 | 4 |
| Image Processing Digital Video       | DMAD | A262 | 4 |
| 3-D Computer Graphics Animation      | DMAD | A281 | 4 |
| Portfolio Development                | DMAD | A289 | 3 |
| Video Workshop                       | FILM | A110 | 3 |
| Digital Film/Video Editing           | FILM | A194 | 3 |
| Intro to Humanities                  | HUM  | A100 | 3 |
| Principles of Advertising            | MKTG | A130 | 3 |
| Intro to Photography                 | PHOT | A120 | 3 |
| Art Photography                      | PHOT | A283 | 4 |

## ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts or Science 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:

1. Demonstrate skill in design utilizing industry standard graphics software.
2. Design and create website projects that demonstrate originality, navigation innovation, engagement with image and text relationships and website construction skills.
3. Demonstrate proficiency in the basic skills of digital animation.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Courses                                      |                  |      | Units        |
|--|------------------|------|--------------|
| <b>FIRST SEMESTER</b>                        |                  |      |              |
| Color & Design 2-D                           | ART              | A110 | 3            |
| Freehand Drawing                             | ART              | A120 | 3            |
| Intro to Computer Graphics                   | DMAD             | A181 | 3            |
| <b>SECOND SEMESTER</b>                       |                  |      |              |
| Illus & Computer Graphics                    | DMAD             | A190 | 4            |
| Photo Graphics w/Photoshop1                  | DMAD             | A193 | 4            |
| Intro to Photography                         | PHOT             | A120 | 3            |
| <b>THIRD SEMESTER</b>                        |                  |      |              |
| History of Media Arts                        | DMAD             | A150 | 3            |
| Motion Graphics/Video Compositing            | DMAD             | A263 | 4            |
| 2-D Animation                                | DMAD             | A280 | 4            |
| <b>FOURTH SEMESTER</b>                       |                  |      |              |
| Web Design/Artists Graph Dsgn                | DMAD             | A200 | 4            |
| 3-D Computer Graphics Animation              | DMAD             | A281 | 4            |
|  | <b>Subtotal:</b> |      | <b>39</b>    |
| <b>Additional course taken at any point:</b> |                  |      |              |
| Internship                                   | DMAD             | A202 | 2            |
|  |                  |      | <b>2</b>     |
| <b>Select one (1) from the following:</b>    |                  |      |              |
| Contemporary Art History                     | ART              | A102 | 3            |
| Image Processing Digital Video               | DMAD             | A262 | 4            |
| Portfolio Development                        | DMAD             | A289 | 3            |
| His & Appr of Cinema                         | FILM             | A100 | 3            |
| History & Aesthetics of Photo                | PHOT             | A130 | 3            |
|  |                  |      | <b>3-4</b>   |
| <b>Total:</b>                                |                  |      | <b>44-45</b> |

### 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 |
| Digital Film/Video Editing    | FILM | A194 | 3 |
| Story Dev & Production        | FILM | A240 | 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 or Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## ENTERTAINMENT TECHNOLOGY

The Orange Coast College Entertainment Technology certificate program is designed to give the student two years of extensive technical experience in the process of creating the scenery, costumes, lighting, or sound effects common to all aspects of the entertainment industry.

Through an intensive program of production work in the OCC Theatre Arts Department, combined with classes throughout the college, the student will acquire the theory, applied training, and work-based experience needed to gain entry-level positions in this highly competitive industry.

### CORE CURRICULUM

#### Required Courses

| Course                                   |               |       | Units        |
|--|---------------|-------|--------------|
| Intro to Theatre                         | THEA          | A100  | 3            |
| OCC Theatre Repertory                    | THEA          | A141* | 6            |
| Stage Crew Activity                      | THEA          | A170* | 2            |
| Arts Internship                          | THEA          | A181  | 2            |
| <b>And any two (2) of the following:</b> |               |       |              |
| Summer Theatre Festival                  | THEA          | A144  | 4            |
| OR                                       |               |       |              |
| Play Production                          | THEA          | A171  | 2            |
| OR                                       |               |       |              |
| Elizabethan Play Wkshp & Production      | THEA          | A172  | 3            |
| OR                                       |               |       |              |
| Classic American Play Production         | THEA          | A173  | 2            |
| OR                                       |               |       |              |
| Children's Theatre Wkshp & Prdctn        | THEA          | A174  | 2            |
| OR                                       |               |       |              |
| Rehearsal & Performance                  | THEA          | A215  | 2            |
|  | <b>Total:</b> |       | <b>17-20</b> |

\*2 semesters required

## SCENIC ARTIST

This program is designed to give students a concentrated background in the art techniques and theatrical theory and production practices required to recreate a scenic designer's artwork on a large scale for theatre, theme parks, or other entertainment uses.

### Program Outcomes

Upon completion of this certificate students will be able to:

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

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                               | Units        |
|--------------------------------------|--------------|
| <b>Entertainment Core Curriculum</b> | <b>17-20</b> |
| Color & Design 2-D                   | 3            |
| Freehand Drawing                     | 3            |
| Perspective                          | 3            |
| Painting 1                           | 3            |
| Stage Scenery                        | 3            |
| <b>Total:</b>                        | <b>32-35</b> |

#### Suggested electives:

|                                 |      |      |   |
|---------------------------------|------|------|---|
| History of Architecture 1       | ARCH | A290 | 3 |
| History of Architecture 2       | ARCH | A296 | 3 |
| History/Apprec Western Art      | ART  | A100 | 3 |
| History/Apprec Western Art      | ART  | A101 | 3 |
| 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        | THEA | A271 | 3 |

## 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:

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

### CERTIFICATE OF ACHIEVEMENT

#### Required Courses

| Course                               | Units        |
|--------------------------------------|--------------|
| <b>Entertainment Core Curriculum</b> | <b>17-20</b> |
| Stage Lighting                       | 3            |
| <b>Total:</b>                        | <b>20-23</b> |

#### 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.

1. Upon completion of this certificate students will be able to:
  2. Read and interpret technical drawings.
  3. Follow designers' specifications to build scenic units accurately
  4. Choose appropriate tools, techniques & materials for each task.

### CERTIFICATE OF ACHIEVEMENT

#### Required courses

| Course                               | Units        |
|--------------------------------------|--------------|
| <b>Entertainment Core Curriculum</b> | <b>17-20</b> |
| Arc & Oxy Welding                    | 3            |
| Stage Scenery                        | 3            |
| <b>Total:</b>                        | <b>23-26</b> |

#### 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 |

## 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     |
|----------------------------------|------|------|-----------|
| <b>FALL</b>                      |      |      |           |
| Video Workshop                   | FILM | A110 | 3         |
| Intro to Radio, TV & Film        | FILM | A150 | 3         |
| <b>SPRING</b>                    |      |      |           |
| TV Production 1                  | FILM | A155 | 3         |
| Digital Film/Video Editing 1     | FILM | A194 | 3         |
| <b>FALL</b>                      |      |      |           |
| History & Appreciation of Cinema | FILM | A100 | 3         |
| Story Develop/Production         | FILM | A240 | 3         |
| <b>SPRING</b>                    |      |      |           |
| TV Production 2                  | FILM | A255 | 3         |
| Electronic Field Production*     | FILM | A265 | 4         |
| Or                               |      |      |           |
| Digital Cinema*                  | FILM | A270 | 4         |
| <b>Subtotal:</b>                 |      |      | <b>25</b> |

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

|   |      |      |           |
|---|------|------|-----------|
| Broadcast Journalism  | BRCT | A105 | 3         |
| Scriptwriting   | ENGL | A127 | 3         |
| Film as Literature  | ENGL | A148 | 3         |
| The Business of Film/TV   | FILM | A102 | 2         |
| 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         |
| Cinematography  | FILM | A262 | 3         |
| Film/Video Editing 2  | FILM | A264 | 3         |
| Electronic Field Production*                                      | FILM | A265 | 4         |
| Digital Cinema*   | FILM | A270 | 4         |
| Intro to Photography  | PHOT | A120 | 3         |
| Theatre Directing   | THEA | A275 | 3         |
| Motion Graphics and Video Compositing<br>with Adobe After effects | DMAD | A263 | 3         |
| <b>Total:</b>   |      |      | <b>10</b> |
| <b>Total:</b>   |      |      | <b>36</b> |

*Note: Courses noted with (\*) may be taken as an elective if the alternative course has been taken as a required course.*

*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 the Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## MUSIC

Because Orange County is close to the heart of the television, movie, and recording industries, OCC answers a real need to train performing musicians and sound technicians, as well as composers, teachers, and music-store owners and salespeople.

Our music industry programs are designed to give the serious music student the theory, applied training, and performing experience needed for success in the field they choose. Traditional music courses are integrated with music-industry courses to provide comprehensive programs.

To increase their chances of enjoying long and satisfying careers in a highly competitive industry, we encourage our students to become proficient in a wide variety of musical styles, and to be aware of the many career alternatives open to them.

## BUSINESS EMPLOYEE

This program will prepare students for employment in music stores, record shops, and other commercial music activities. Many opportunities in the business of music are available to students with a broad general knowledge of how this segment of the music industry functions in addition to traditional musical skills.

### Program Outcomes

Upon completion of this certificate students will be able to:

1. Demonstrate knowledge of basic requirements of vocalists, guitarists and pianists
2. Working Knowledge of basic studio techniques and equipment applications
3. Prepare and deliver an effective sales presentation for a product or service.
4. Organize, develop and prepare a written professional sales presentation for a product or service.

## CERTIFICATE OF ACHIEVEMENT

### Required Courses

| Course                    |      |      | Units     |
|---------------------------|------|------|-----------|
| <b>FIRST SEMESTER</b>     |      |      |           |
| History of Rock           | MUS  | A139 | 3         |
| Piano 1                   | MUS  | A141 | 1         |
| Voice 1                   | MUS  | A145 | 1         |
| Music as a Business       | MUS  | A262 | 2         |
| <b>SECOND SEMESTER</b>    |      |      |           |
| Basic Guitar              | MUS  | A116 | 2         |
| Theory and Ear Training 1 | MUS  | A180 | 5         |
| Recording Techniques      | MUS  | A261 | 2         |
| <b>THIRD SEMESTER</b>     |      |      |           |
| Professional Selling      | MKTG | A110 | 3         |
| Computers in Music        | MUS  | A102 | 3         |
| <b>Subtotal:</b>          |      |      | <b>22</b> |

*Continued on next page*

**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         |
| <b>Total:</b>             |      |      | <b>27</b> |

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Science 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:

1. Create and perform musical compositions utilizing a standard scoring program.
2. Create musical compositions utilizing standard music production programs that demonstrate competency in the following techniques:
  - Looping
  - Sequencing
  - diting
  - Virtual synthesis

Demonstrate applications of studio recording techniques

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                   |     |      | Units     |
|--------------------------|-----|------|-----------|
| Intro to Info Sys & Appl | CIS | A100 | 3         |
| Computers in Music*      | MUS | A102 | 12        |
| Fundamentals of Music    | MUS | A115 | 3         |
| Recording Techniques 1   | MUS | A261 | 2         |
| <b>Subtotal:</b>         |     |      | <b>20</b> |

**Select five (5) units from the following:**

|                           |      |      |           |
|---------------------------|------|------|-----------|
| PASCAL Programming        | CS   | A115 | 4         |
| 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         |
| <b>Total:</b>             |      |      | <b>25</b> |

\*Music A102 (3 units) is to be taken 4 times for 12 units.

**ASSOCIATE DEGREE**

Complete the Certificate of Achievement and Associate in Science 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:

1. Perform musical selections in a variety of popular styles.
2. Organize a performing event.
3. Develop repertoire for a performing event.
4. Develop a professional marketing strategy.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                        |     |      | Units        |
|-------------------------------|-----|------|--------------|
| <b>FIRST SEMESTER</b>         |     |      |              |
| Musicianship and Ear Training | MUS | A101 | 2            |
| History of Rock               | MUS | A139 | 3            |
| Piano 1                       | MUS | A141 | 1            |
| Theory and Ear Training 1     | MUS | A180 | 5            |
| Music Performing Group*       |     |      | 2            |
| <b>SECOND SEMESTER</b>        |     |      |              |
| Piano 2                       | MUS | A142 | 1            |
| History of Jazz               | MUS | A143 | 3            |
| Theory and Ear Training 2     | MUS | A185 | 5            |
| Applied Music                 | MUS | A290 | 2-4          |
| Music Performing Group*       |     |      | 2            |
| <b>THIRD SEMESTER</b>         |     |      |              |
| 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            |
| <b>Total:</b>                 |     |      | <b>36-40</b> |

*\*Music students in this major must participate in at least one major performing group per semester. Students should select a performing group that fits their performance specialty or interest. Vocalists should choose Music 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 Science 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:

1. Perform musical selections in a variety of popular styles.
2. Organize a performing event.
3. Develop repertoire for a performing event.
4. Develop a professional marketing strategy.
5. Record a demo CD.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                        | Units |      |              |
|-------------------------------|-------|------|--------------|
| <b>FIRST SEMESTER</b>         |       |      |              |
| Piano 1                       | MUS   | A141 | 1            |
| Popular Vocal Techniques      | MUS   | A144 | 2            |
| Theory and Ear Training 1     | MUS   | A180 | 5            |
| Music Performing Group*       |       |      | 2            |
| <b>SECOND SEMESTER</b>        |       |      |              |
| 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            |
| <b>THIRD SEMESTER</b>         |       |      |              |
| History of Jazz               | MUS   | A143 | 3            |
| Recording Techniques          | MUS   | A261 | 2            |
| Music as a Business           | MUS   | A262 | 2            |
| Applied Music                 | MUS   | A290 | 2-4          |
| Music Performing Group*       |       |      | 2            |
| <b>Total:</b>                 |       |      | <b>31-35</b> |

*\*Music students in this major must participate in at least one major performing group per semester. Students should select a performing group that fits their performance specialty or interest. Vocalists should choose Music 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 Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## STUDIO GUITAR PERFORMER

A studio guitarist is a complete guitarist and musician who can accurately perform in a variety of musical styles. The courses in this program cover jazz, rock and classical guitar techniques, traditional and commercial music theory and include numerous performance opportunities.

**Program Outcomes**

Upon completion of this certificate students will be able to: Perform musical selections in a variety of popular styles.

1. Develop repertoire for a recording event.
2. Develop a professional marketing strategy.
3. Record a demo CD.

**CERTIFICATE OF ACHIEVEMENT**

**Required Courses**

| Course                        | Units |      |              |
|-------------------------------|-------|------|--------------|
| <b>FIRST SEMESTER</b>         |       |      |              |
| 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            |
| <b>SECOND SEMESTER</b>        |       |      |              |
| 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          |
| <b>THIRD SEMESTER</b>         |       |      |              |
| 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          |
| <b>Total:</b>                 |       |      | <b>29-33</b> |

**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 Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

## PHOTOGRAPHY

### 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 Photo                      | PHOT | A180 | 4         |
| Commercial Photo                                 | PHOT | A188 | 5         |
| Professional Digital Capture                     | PHOT | A205 | 3         |
| Professional Digital Workflow & Color Management | PHOT | A225 | 3         |
| Professional Digital Techniques                  | PHOT | A280 | 3         |
| <b>Total</b>                                     |      |      | <b>18</b> |

#### Recommended:

|                                      |      |      |   |
|--------------------------------------|------|------|---|
| Imaging with Photoshop 1             | 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 art, commercial, advertising illustration, portraiture, architectural, fashion, or documentary photography, color management, digital work flow, 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 digital 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     |
|---|------|------|-----------|
| <b>FIRST SEMESTER</b>                           |      |      |           |
| Intro to Photography                            | PHOT | A120 | 3         |
| Imaging with Photoshop 1                        | PHOT | A125 | 3         |
| History & Aesthetics of Photo                   | PHOT | A130 | 3         |
| <b>SECOND SEMESTER</b>                          |      |      |           |
| History/Apprec Western Art                      | ART  | A101 | 3         |
| OR  |      |      |           |
| Contemporary Art History                        | ART  | A102 |           |
| Intro to Professional Photo                     | PHOT | A180 | 4         |
| Any "A100" level photo course 2 unit min        |      |      | 2         |
| <b>THIRD SEMESTER</b>                           |      |      |           |
| Commercial Photo                                | PHOT | A188 | 5         |
| Professional Digital Capture                    | PHOT | A205 | 3         |
| Prof Digital Workflow and Color Management      | PHOT | A225 | 3         |
| <b>FOURTH SEMESTER</b>                          |      |      |           |
| Professional Digital Techniques                 | PHOT | A280 | 3         |
| Art Photography                                 | PHOT | A283 | 4         |
| <b>Select six (6) units from the following:</b> |      |      |           |
| Any "A200" level photo courses                  |      |      | 6         |
| <b>Total:</b>                                   |      |      | <b>42</b> |

#### Recommended:

|                             |      |      |   |
|-----------------------------|------|------|---|
| Fundamentals of Composition | ENGL | 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

# 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.

## ACCOUNTING

### Accounting A100—Accounting for Small Business — 3 units

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 lecture. **Transfer Credit: CSU.**

### Accounting A101—Financial Accounting — 4 units

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 lecture. **Transfer Credit: CSU; UC.**

### Accounting A102—Managerial Accounting — 4 units

**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 lecture. **Transfer Credit: CSU; UC.**

### Accounting A110—Accounting Information Systems 1 — 3 units

**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 lecture. **Transfer Credit: CSU.**

### Accounting A111—Federal Income Tax — 3 units

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 lecture. **Transfer Credit: CSU.**

### Accounting A112—Accounting with QuickBooks — 2 units

**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 unit

**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. Ten hours lecture. **Transfer Credit: CSU.**

### Accounting A115—Medical Bookkeeping — 4 units

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 lecture. **Transfer Credit: CSU.**

### Accounting A117—Mas 90/Mas 200 — 2 units

**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 units

**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 lecture. **Transfer Credit: CSU.**

### Accounting A121—Full Charge Bookkeeper — 1 unit

**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 lecture. **Transfer Credit: CSU.**

### Accounting A199—Current Topics in Accounting — 1-4 units

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 units

**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 lecture. **Transfer Credit: CSU.**

### Accounting A211—Intermediate CPA-Track Accounting — 4 units

**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 lecture. **Transfer Credit: CSU.**

### Accounting A212—Intermediate Accounting 1 — 3 units

**Prerequisite:** Accounting A101

Financial accounting theory and practice. Reviews and builds upon concepts learned in earlier financial accounting courses. Emphasizes preparation and analysis of more complex accounting issues for financial statements of corporations, including the underlying principles involved. **Transfer Credit: CSU.**

### Accounting A213—Intermediate Accounting 2 — 3 units

**Prerequisite:** Accounting A101

Financial accounting theory and practice. Reviews and builds upon concepts learned in earlier financial accounting courses. Emphasizes preparation and analysis of more complex accounting issues for financial statements of corporations, including the underlying principles involved. **Transfer Credit: CSU.**

### Accounting A218—Auditing — 3 units

**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. Three hours lecture. **Transfer Credit: CSU.**

## AIRLINE AND TRAVEL CAREERS

### Airline and Travel Careers A112—Flight Attendant Qualifications and Opportunities — 1.5 units

Survey of flight attendant and in-flight service team qualifications and opportunities for employment, including base stations, responsibilities, salary schedule, and benefits. Three hours lecture. **Transfer Credit: CSU.**

## Airline and Travel Careers A116—Airline Operations and Terminology — 1.5 units

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 lecture. **Transfer Credit: CSU.**

## Airline and Travel Careers A119—Travel Safety Inflight and Ground — 1.5 units

Travel safety and security to include ground and inflight equipment, passenger psychology, airport security, federal regulations, safety precautions while traveling, anti-terrorism and hijacking discussion. This course may also be offered online. Three hours lecture. **Transfer Credit: CSU.**

## Airline and Travel Careers A120—Airline Service Excellence — 1.5 units

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. One and one-half hours lecture. **Transfer Credit: CSU.**

## Airline and Travel Careers A136—Corporate/Contract Flight Attendant — 1.5 units

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.**

## ALLIED HEALTH

### Allied Health A010—Health Occupations — .5 units

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 lecture.

### Allied Health A011—Health Careers Connection — .5 units

**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 units

**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 lecture. **Transfer Credit: CSU. 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.

### Allied Health A115—Patient Care — 2.5 units

**Prerequisite:** Allied Health A111 or concurrent enrollment; non-native speakers must complete English as a Second Language A151 (exemption based on assessment results).

This course must be taken within six months prior to first clinical entry. Content includes orientation to clinical setting including communication, legal & ethical issues, healthcare finance, patient care techniques, CPR, (HCP level), blood borne pathogen training, MSDS, HIPAA training, body mechanics for patient ambulation, emergency interventions, medical asepsis, aspects of death & dying and employment as a healthcare professional. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

### Allied Health A120—Human Diseases — 2 units

**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 lecture. **Transfer Credit: CSU.**

### Allied Health A130—Applied Pharmacology — 2 units

**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 lecture. **Transfer Credit: CSU.**

### Allied Health A199—Current Issues in Allied Health — .5 units

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 lecture. **Transfer Credit: CSU.**

### Allied Health A280—Supervisory Management for Health Care Professionals — 2 units

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 lecture. **Transfer Credit: CSU.**

## AMERICAN STUDIES

### American Studies A100—Institutions — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

## ANTHROPOLOGY

### Anthropology A100—Cultural Anthropology — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Anthropology A100H—Honors Cultural Anthropology — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Anthropology A102—Native American — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Anthropology A105—Anthropology of Nonverbal Behavior — 3 units

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 lecture. **Transfer Credit: CSU.**

### Anthropology A110—Comparative Cultures — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Anthropology A150—Multicultural Behavior — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Anthropology A185—Physical Anthropology — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

## **Anthropology A185L—Physical Anthropology Laboratory — 1 unit**

**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 units**

Linguistic analysis and language structures from many areas of the world. Descriptive and historical linguistics. Relationships between language and culture. Three hours lecture. **Transfer Credit: CSU; UC.**

## **Anthropology A280—Introduction to Archaeology — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

## **Anthropology A285—World Ethnology — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

## **ARCHITECTURAL TECHNOLOGY**

### **Architectural Technology A101—Intro to Environmental Sustainability — 1 unit**

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. One hour lecture. **Transfer Credit: CSU.**

### **Architectural Technology A105—Architectural Drawing and Design Visualization 1 — 2 units**

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 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Architectural Technology A110H—Introduction to Architecture Honors — 2 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Architectural Technology A115—Architectural Design and Theory 1 — 4 units**

**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 units**

This course introduces Computer Aided Drafting (CAD) as used to produce 2-dimensional architectural drawings. PCs with Autodesk Revit, ArchiCAD, 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. Two hours lecture, two hours lab. **Transfer Credit: CSU.**

### **Architectural Technology A155—BIM 1 for Architecture — 2 units**

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. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology A156—BIM 2 for Architecture — 2 units**

**Prerequisite:** Architecture Technology A155 (BIM 1) or comparable skills with BIM as determined by instructor.

This course utilizes 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 modeling an intermediate/advanced project and utilizing advanced features of BIM. Students should have basic knowledge of BIM as well as construction. This course may be taken four times. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology A157—BIM Structural/MEP — 2.5 units**

**Prerequisite:** Architecture Technology A156 This course introduces Building Information Modeling (BIM) as used to add Structural, Mechanical, Electrical, and Plumbing information to a 3-dimensional architectural model. PCs with Autodesk Revit will be used and instruction will focus on coordinating one or more discipline with an architectural model. Students should have basic knowledge of BIM as well as construction. This course may be taken four times and students may choose their discipline. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology A158—BIM Project Management — 2.5 units**

**Prerequisite:** Architecture Technology A157. This course introduces Building Information Modeling (BIM) in conjunction with Project Management software in order to coordinate and manage construction information for a 3-dimensional building model. PCs with Autodesk Revit and Navisworks will be used and instruction will focus on coordination, scheduling, and cost estimating. Students should have basic knowledge of BIM as well as construction. This course may be taken up to four times so that students may master their skills. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology A160—3-D Modeling: Rhino or 3-D Studio Max SketchUp — 2 units**

~~This course introduces 3-D Modeling for architectural design visualization using Rhino or 3-D Studio Max software. Hands-on instruction will focus on digitally modeling a design with rectilinear and non-rectilinear geometry and exporting images for design presentation. Students should have basic knowledge of computers and file management. 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. This course may be taken three times. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**~~

### **Architectural Technology A162—3-D Modeling: Rhino or 3-D Studio Max — 2 units**

This course introduces 3-D Modeling for architectural design visualization using Rhino or 3-D Studio Max software. Hands-on instruction will focus on digitally modeling a design with rectilinear and non-rectilinear geometry and exporting images for design presentation. Students should have basic knowledge of computers and file management. This course may be taken three times. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology A165—Presentation Graphics for Architecture — 2 units**

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. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology A167—Video for Architecture — 1 unit**

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. One hour lecture, one-half hour non-lecture. **Transfer Credit: CSU.**

### **Architectural Technology 170—Intro to Fabrication/Safety for Architecture — 1 unit**

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. One hour lecture, one hour non-lecture. **Transfer Credit: CSU.**

**Architectural Technology A171—Fabrication 1 for Architecture — 2 units**

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. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology A172—Fabrication 2 for Architecture — 2 units**

This intermediate/advanced course is on digital fabrication techniques for architecture and construction and will include shop safety. Focus is on independent project construction using computer-driven equipment (CNC, laser cutters, 3-D scanners and printers, etc.) Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology A180—Architectural Drafting and Construction Documents — 4 units**

**Prerequisite:** Architectural Technology A105, and A155. A basic course focusing on representation skills as applied to digital and physical construction models and documents for a wood frame structure. Further emphasis is on architectural symbols and conventions, specifications, building codes, products, materials, equipment, and the development of a student-designed structure. Two hours lecture, six hours lab. **Transfer Credit: CSU.**

**Architectural Technology A185—Environmental Design Systems — 4 units**

**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 units**

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. One-half hour to four hours lecture, zero to three hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology A201—Design/Build 1 for Architecture — 2 units**

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. Two hours lecture, two hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology A202—Design/Build 2 for Architecture — 4 units**

**Prerequisite:** Architectural Technology A180. 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. Four hours lecture, four hours lab. **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.

**Architectural Technology A205—Architectural Drawing and Design Visual 2 — 3 units**

**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 units**

**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 units**

**Prerequisite:** Architectural Technology A180. This advanced course focuses on the materials, building systems, design, and construction methods used for non-residential construction. The course will include field studies and hands-on projects that explore the principles and properties of various building materials and systems and sustainable considerations. Three hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

**Architectural Technology A225—Land and Building Development — 3 units**

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 lecture. **Transfer Credit: CSU.**

**Architectural Technology A230—Architectural Design and Theory 3 — 5 units**

**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. Three hours lecture, seven hours non-lecture. **Transfer Credit: CSU, UC.**

**Architectural Technology A230H—Architectural Design and Theory 3 Honors — 5 units**

**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. Three hours lecture, seven hours non-lecture. **Transfer Credit: CSU, UC.**

**Architectural Technology A250—Building Codes and Standards — 2 units**

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 lecture. **Transfer Credit: CSU.**

**Architectural Technology A290—History of Architecture 1 — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

**Architectural Technology A290H—History of Architecture 1 Honors — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

**Architectural Technology A296—History of Architecture 2 — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

## **Architectural Technology A296H—History of Architecture 2 Honors — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

## ART

### **Art A100—History and Appreciation of Western Art: Prehistory Through Gothic — 3 units**

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 lecture. **Transfer Credit: CSU; UC. C-ID ARTH 110**

### **Art A100H—Honors History and Appreciation of Western Art: Prehistory Through Gothic — 3 units**

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 lecture. **Transfer Credit: CSU; UC. C-ID ARTH 110**

### **Art A101—History and Appreciation of Western Art: Proto-Renaissance through Post Impressionism — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Art A101H—Honors History and Appreciation of Western Art: Proto-Renaissance through Post Impressionism — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Art A102—Contemporary Art History — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Art A103—History of Asian Art: China, Korea, Japan — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Art A107—Introduction to Art — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Art A108—Women in Art — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

### **Art A110—Color and Design: Two-Dimensional — 3 units**

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. C-ID ARTS 100**

### **Art A111—Color and Design: Three-Dimensional — 3 units**

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. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

### **Art A116—Furniture Making and Design — 4 units**

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 units**

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 units**

**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 units**

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. C-ID ARTS 110**

### **Art A120H—Honors Beginning Drawing — 3 units**

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 1 — 3 units**

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

### **Art A122—Human Anatomy for Artists — 3 units**

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

### **Art A124—Advanced Drawing — 3 units**

**Prerequisite:** Art A120.  
Designed as a continuation of Art A120, the emphasis will be to advance the artistic concepts, style, and creative expression for intermediate and advanced students using a variety of drawing mediums, techniques and methodologies. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

### **Art A125—Perspective Drawing — 3 units**

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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

### **Art A130—Painting 1 — 3 units**

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

### **Art A131—Painting 2 — 3 units**

**Prerequisite:** Art A130.  
A continuation of Art A130 with emphasis on personal expression. Alternate painting mediums introduced. This course may be taken three times. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

### **Art A141—Sculpture 1 — 3 units**

Exploration of sculptural material and concepts, technical experiences may include modeling, casting and fabricating with sculptural media. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

### **Art A142—Life Sculpture 1 — 3 units**

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

### **Art A143—Story Illustration Techniques — 3 units**

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU.**

## Art A145—Exhibition Design 1 — 3 units

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. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU.**

## Art A147—Jewelry 1 — 3 units

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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU.**

## Art A150—Ceramics 1 — 3 units

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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A151—Ceramics 2 — 3 units

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A170—Printmaking 1 — 3 units

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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A171—Printmaking 2 — 3 units

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A175—Screen Process Printing — 3 units

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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU.**

## Art A180—Professional Studies — 2.5 units

An exploration and identification of areas of employment and professional activity in art making. Presentation techniques 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. Four hours non-lecture/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.

## Art A202—Introduction to Contemporary Art Theory — 3 units

**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 lecture. **Transfer Credit: CSU.**

## Art A220—Figure Composition — 3 units

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A235—Experimental Painting — 3 units

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A236—Life Painting 1 — 3 units

**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. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A241—Sculpture 2 — 3 units

**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. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU; UC.**

## Art A245—Exhibition Design 2 — 3 units

**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. One and one-half hours lecture, four and one-half hours non-lecture. **Transfer Credit: CSU.**

## Art A247—Jewelry 2 — 3 units

**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 One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU.**

## Art A263—Watercolor 1 — 3 units

**Advisory:** Art A110.

Materials, methods, composition, and color for both still life and landscape painting. This course may be taken four times. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A269—Cartooning 1 — 3 units

A basic course in cartooning for students interested in learning how to cartoon without any previous formal art training. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU; UC.**

## Art A270—Cartooning 2 — 3 units

**Prerequisite:** Art A269.

A continuation of Cartooning 1 with an emphasis on developing drawing skills, story idea interpretation, and a professional approach to cartooning. One and one-half hours lecture, four and one-half hours studio. **Transfer Credit: CSU.**

## Art A286—Book Arts — 2 units

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

### Astronomy A100—Elementary Astronomy — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Astronomy A100H—Honors Elementary Astronomy — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Astronomy A100L—Elementary Astronomy Laboratory — 1 unit

**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. May be taken for grades or on a pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**Astronomy A101—Planetary Astronomy — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

**Astronomy A102—Stellar Astronomy — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

**Astronomy A103—Cosmology — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

**ATHLETICS**

*Formerly Physical Education*

*Also see Kinesiology*

**INTERCOLLEGIATE CONDITIONING**

**Athletics A109—Sports Conditioning — .5-2.5 units**

*Formerly Physical Education A109*

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.**

**Athletics A119—Athletic Team Training -.5-5 units**

*Formerly Physical Education A119*

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.**

**Athletics A129—Fitness for Performance — .5-2.5 units**

*Formerly Physical Education A129*

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.**

**ATHLETICS — INTERCOLLEGIATE COED**

**Athletics A222—Pep Squad — 2 units**

*Formerly Physical Education A222*

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; UC.**

**ATHLETICS — INTERCOLLEGIATE MEN**

**Athletics A250—Baseball Team — 2 units**

*Formerly Physical Education A250*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A251—Basketball Team — Men's — 1 unit**

*Formerly Physical Education A251*

This course is for students who have successfully auditioned for the OCC Intercollegiate Men's basketball team during the first eight weeks of the fall semester. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Athletics A252—Crew Team — Men's — 2 units**

*Formerly Physical Education A252*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A253—Cross Country Team — Men's — 2 units**

*Formerly Physical Education A253*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A254—Football Team — 2 units**

*Formerly Physical Education A254*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A255—Golf Team — 2 units**

*Formerly Physical Education A221*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A257—Soccer Team — Men's — 2 units**

*Formerly Physical Education A257*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A258—Swimming Team — Men's — 2 units**

*Formerly Physical Education A258*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A259—Tennis Team — Men's — 2 units**

*Formerly Physical Education A259*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A260—Track and Field Team — Men's — 2 units**

*Formerly Physical Education A260*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A261—Volleyball Team — Men's — 2 units**

*Formerly Physical Education A261*

Eligibility audition will be held during the first week of class. 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.**

**Athletics A263—Water Polo Team — Men's — 2 units**

*Formerly Physical Education A263*

Eligibility audition will be held during the first week of class in ATHL 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.

**ATHLETICS — INTERCOLLEGIATE WOMEN**

**Athletics A235—Basketball Team — Women's — 1 unit**

*Formerly Physical Education A235*

This course is for students who have successfully auditioned for the OCC Intercollegiate Women's basketball team during the first eight weeks of the fall semester. This course may be taken four times. Two and one-half hours lecture, seven and one-half hours activity. **Transfer Credit: CSU; UC.**

**Athletics A236—Cross Country Team — Women's — 2 units**

*Formerly Physical Education A236*

Eligibility audition will be held during the first week of class. 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.**

## **Athletics A238—Crew Team — Women's — 2 units**

*Formerly Physical Education A238*

**Prerequisite:** Crew fundamentals.

Eligibility audition will be held during the first week of class. 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.

## **Athletics A240—Soccer Team — Women's — 2 units**

*Formerly Physical Education A240*

Eligibility audition will be held during the first week of class. 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.

## **Athletics A241—Fastpitch Team — 2 units**

*Formerly Physical Education A241*

Eligibility audition will be held during the first week of class. 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.

## **Athletics A242—Swimming Team — Women's — 2 units**

*Formerly Physical Education A242*

Eligibility audition will be held during the first week of class. 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.

## **Athletics A243—Tennis Team — Women's — 2 units**

*Formerly Physical Education A243*

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.

## **Athletics A244—Track and Field Team — Women's — 2 units**

*Formerly Physical Education A244*

Eligibility audition will be held during the first week of class. 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.

## **Athletics A245—Volleyball Team — Women's — 2 units**

*Formerly Physical Education A245*

Eligibility audition will be held during the first week of class. 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.

## **Athletics A246—Water Polo Team — Women's — 2 units**

*Formerly Physical Education A246*

Eligibility audition will be held during the first week of class. 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.

## **AVIATION MAINTENANCE TECHNOLOGY**

*(Formerly Aviation Technology)*

### **Aviation Maintenance Technology A140— Helicopter Theory and Operations — 3 units**

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 lecture. **Transfer Credit:** CSU.

### **Aviation Maintenance Technology A150—General Maintenance Records — FAA — 4 units**

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 units**

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 units**

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.

### **Aviation Maintenance Technology A153—General Materials, Processes & Welding — FAA — 3 units**

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 units**

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 units**

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 units**

**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 units**

**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 units**

**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 units**

**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.

## **Aviation Maintenance Technology A170—Powerplant Reciprocating Engines -FAA — 6 units**

**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 units**

**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 units**

**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 units**

**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 units

**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 units

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 units

**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 units

**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 units

**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 units

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 units

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

In order to attain licensing as a pilot, students are required to satisfy aeronautical experience requirements as outlined in applicable subparts of the Federal Aviation Regulations (FAR). The majority of this experience must be accumulated in actual aircraft. In aircraft flight training to meet the specific aeronautical experience requirements of FAR 61.109, 61.65 and 61.129 is billed separately from ground school courses. Aircraft fees are \$95 per hour and Flight Instructor fees \$45 per hour in college owned aircraft. Total cost to meet the minimum requirements of FAR 61.109 in college owned aircraft is \$4,600. Use of college owned aircraft is limited and not guaranteed however students may train in vendor supplied aircraft. Vendor aircraft and instructors are supplied at market rates. In addition, most students require training beyond the minimum hour's requirement of 61.109 which may also increase total cost. Aircraft fees are subject to change.

College owned aircraft are not currently used for training under Flight Labs APT A121, A123 and A124. In aircraft flight training to meet the specific aeronautical experience requirements of FAR 61.65 and FAR 61.129 is conducted in vendor supplied aircraft and billed separately. Total cost to meet the minimum requirements of FAR 61.65 is approximately \$8,000. Most students require training beyond the minimum hour requirement of 61.65 which may increase total cost. Fees are subject to change. Estimated cost to meet the minimum aeronautical experience requirements of 61.129 is \$21,000. Aircraft and instructor fees are subject to change. At the completion of APT A120, APT A121, APT A123 and APT A124 students should have accrued the 250 hours total flight time required for licensing as a commercial pilot.

All APT courses to include flight lab are financial aid eligible and VA benefit eligible if the student is enrolled with Aviation Pilot Training as their declared major area of study.

For additional information regarding Aviation Pilot Training courses, contact the instructor or Division Dean.

## Aviation Pilot Training A110—Introduction to Airport Operations — 3 units

This course provides students with an introduction to airport operations and operations management. Students will learn about the daily responsibilities of airport operations managers to include airfield inspections, aircraft ramp handling, passenger terminal operations, airport security and cargo handling. In addition the student will be introduced to airport licensing requirements, airport operational administration and performance and environmental planning factors to include noise abatement. Three hours lecture. **Transfer Credit: CSU.**

## Aviation Pilot Training A115—Introduction to Flight Operations- 3 units

This course provides an introduction to airline and corporate flight operations and operations management to include the economic structure of the airlines, airline organization and management, forecasting, scheduling, marketing and fleet selection. In addition, corporate flight operations and the impact of general aviation on the nation's air transportation system are explored. The course also introduces the student to the world of flight operations management to include dispatch, crew scheduling, airframe scheduling and flight following. Three hours lecture. **Transfer Credit: CSU.**

## Aviation Pilot Training A120—Private Pilot Flight Lab — 1 unit

**Prerequisite:** Course entry requires written approval by Aviation Pilot Training lead instructor and Division Dean.

**Advisory:** Aviation Pilot Training A130, A133.

During this course the student obtains the foundation for all future aviation training. The student will receive training in the maneuvers and procedures necessary for him/her to meet the standards contained in the FAA Private Pilot Practical Test Standards. Additionally, the student will receive training in safety awareness, crew resource management, and aeronautical decision-making All training is conducted in accordance with CFR 14, Federal Aviation Regulation Part 61 and under a syllabus of instruction approved under CFR 14, Federal Aviation Regulation Part 141. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus. Three hours non-lecture. **Transfer Credit: CSU.**

## Aviation Pilot Training A121—Instrument Pilot Flight Lab — 2 units

**Prerequisite:** Course entry requires written approval by Aviation Pilot Training lead instructor and Division Dean.

The student will receive training in the maneuvers and procedures necessary to meet the standards contained in the FAA Instrument Rating Practical Test Standards. Additionally, the student will receive training in safety awareness, crew resource management, and aeronautical decision-making. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61 and Part 141. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus. At the successful completion of this course the student will have gained the aeronautical experience necessary to attain the addition of an Instrument Rating for the Private Pilot Certificate. Three hours non-lecture. **Transfer Credit: CSU.**

## Aviation Pilot Training A122—Commercial Pilot Flight Lab — 2 units

**Prerequisite:** Course entry requires written approval by Aviation Pilot Training lead instructor and Division Dean.

**Corequisite:** Aviation Pilot Training A139.

The student will receive training in the maneuvers and procedures necessary to meet the standards contained in the FAA Commercial Pilot Practical Test Standards. Additionally, the student will receive training in safety awareness, crew resource management, and aeronautical decision-making. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61 and Part 141. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

## Aviation Pilot Training A123—Private Pilot Advanced Flight Lab — 1 unit

**Prerequisite:** Course entry requires written approval by Aviation Pilot Training lead instructor and division dean.

Flight training in selected areas for the purpose of gaining proficiency in required pilot operations for various certificates and ratings. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61 and Part 141. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus. In addition, flight lab courses allow the student to accrue the necessary flight hours for certification and licensing as a commercial, instrument pilot. Three hours lab. **Transfer Credit: CSU.**

## Aviation Pilot Training A124—Commercial Pilot Flight Lab — 1 unit

**Prerequisite:** Course entry requires written approval by Aviation Pilot Training lead instructor and Division Dean.

This course provides enrolled students with the opportunity to accrue the aeronautical experience necessary to gain advanced certificates and ratings. The student will receive training in the maneuvers and procedures necessary for him/her to meet the standards contained in the FAA Private Pilot Practical Test Standards. Additionally, the student will receive training in safety awareness, crew resource management, and aeronautical decision-making. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61 and Part 141. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus. At the successful completion of this course the student will have gained the aeronautical experience necessary to attain advanced ratings in addition to the Private Pilot Certificate with an Airplane Single Engine Land Rating. In addition, flight lab courses are offered allowing the student to accrue the necessary flight hours for certification and licensing as a commercial, instrument pilot. Three hours non-lecture.

**Transfer Credit:** CSU.

## Aviation Pilot Training A130—Private Pilot Aviation Ground School — 5 units

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. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61. Five hours lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A132—Aviation Navigation — 3 units

**Prerequisite:** Aviation Pilot Training A130 or current Private Pilot Certificate 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. Current Private Pilot Certificate will be verified by the Instructor at the first class meeting. Three hours lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A133—Aviation-Meteorology — 3 units

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 lecture. **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 Pilot Training A134—Instrument Pilot Aviation Ground School — 3 units

**Prerequisite:** Aviation Pilot Training A130 or current Private Pilot Certificate. 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. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus. Meets the preparation requirements for the FAA Instrument rating computerized knowledge examination. Current Private Pilot Certificate will be verified by the instructor at the first class meeting. Three hours lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A138—Aerodynamics — 3 units

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 lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A139—Commercial Pilot Aviation Ground School — 3 units

**Prerequisite:** Aviation Pilot Training A130 or current Private Pilot Certificate with Instrument rating.

Provides academic background for Private Pilots preparing for the FAA Commercial Pilot license. Covers transport category aircraft performance considerations, advanced weight and balance, 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 lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A140—Flight Instructor Ground School — 3 units

**Prerequisite:** 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. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61 and Part 141. Students satisfying the pilot certificate prerequisite must present proof to the instructor during the first week of the course. Three hours lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A141—Instrument Flight Simulator Lab — 2 units

**Prerequisite:** Aviation Pilot Training A130 or Private Pilot Certificate.

**Corequisite:** Aviation Pilot Training A134.

Course provides simulator instruction to be given concurrent with instrument flight lessons contained in APT A134. Course provides preparation for the Federal Aviation Agency (FAA) practical examination for the Instrument Rating. May be taken for grades or on a pass-no pass basis. One hour lecture, three hours non-lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A145—Turbine Aircraft Systems & Theory — 3 units

**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 lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A146—Advanced Aircraft & Engines — 3 units

**Advisory:** Aviation Pilot Training A130.

This course provides advanced information on aircraft engines and aircraft subsystems, to include turbine gas generator theory as well as an introduction to environmental and pressurization control systems found in complex aircraft. The course will enhance the students' understanding of basic aircraft systems to include constant speed propellers, primary flight controls, and provide detailed information on secondary flight controls, retractable landing gear, autopilots, flight directors, fuel systems and electrical systems. Three hours lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A180—Basic Air Transportation — 3 units

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 lecture. **Transfer Credit:** CSU.

## Aviation Pilot Training A192—Human Factors & Crew Resource Management — 3 units

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 lecture. **Transfer Credit:** CSU.

## BIOLOGY

### Biology A100—Introduction to Biology — 4 units

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 units**

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 classes as we use the reagents of the kitchen to teach the basic principles of biology and the scientific method. Three hours lecture, one hour lab. **Transfer Credit: CSU; UC.**

## **Biology A114—Basic Microbiology — 2 units**

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 units**

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 lecture. **Transfer Credit: CSU; UC.**

## **Biology A140—The Biology of Drugs — 1 unit**

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 lecture. **Transfer Credit: CSU.**

## **Biology A160—Biology of Sexually Transmitted Diseases — 2 units**

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 lecture. **Transfer Credit: CSU.**

## **Biology A172—Nature of Birds — 2 units**

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 lecture. **Transfer Credit: CSU.**

## **Biology A180—Cell & Molecular Biology — 4 units**

*Formerly Biology A181*

**Prerequisite:** Chemistry A130 or higher with a grade of 'C' or better. Non-native speaking students must be eligible to enter English as a Second Language A031 or A035.

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 A180H—Cell & Molecular Biology Honors — 4 units**

*Formerly Biology A181H*

**Prerequisite:** Chemistry A130 or higher 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 A031 or A035.

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 units**

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 lecture. **Transfer Credit: CSU; UC.**

## **Biology A182L—Zoology Lab — 1 unit**

**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 units**

Includes the dynamics of plants and their processes with particular emphasis on the structure and function of living plants. Three hours lecture. **Transfer Credit: CSU; UC.**

## **Biology A183L—Botany Lab — 1 unit**

**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 units**

**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.**

## **Biology A198—Exploration of Careers in Biology — 1 unit**

**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 lecture. **Transfer Credit: CSU.**

## **Biology A210—General Microbiology — 5 units**

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 units**

**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—Human Anatomy — 5 units**

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 Kinesiology majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

## **Biology A220H—Human Anatomy Honors — 5 units**

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 Kinesiology majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

## **Biology A221—Introduction to Anatomy & Physiology — 4 units**

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—Human Physiology — 5 units**

**Advisory:** 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 Kinesiology majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

## **Biology A225H—Human Physiology Honors — 5 units**

**Advisory:** 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 Kinesiology majors. Three hours lecture, six hours laboratory. **Transfer Credit: CSU; UC.**

## **Biology A280—Evolutionary Ecology — 4 units**

**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. Three-and-three-quarter hours lecture, two and-a-quarter hours lab. **Transfer Credit: CSU; UC.**

## **Biology A281—Biochemistry — 2 units**

**Prerequisite:** Biology A181 and Chemistry A220.

**Coresquisite:** Chemistry A225.

An introduction to the chemistry of biology. This course is designed to satisfy transfer requirements for some biology majors. Two hours lecture. **Transfer Credit: CSU; UC.**

## Biology A281H—Honors Biochemistry — 2 units

**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 lecture. **Transfer Credit: CSU; UC.**

## Biology A282—Molecular Biology — 2 units

**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 lecture. **Transfer Credit: CSU; UC.**

## Biology A282H—Honors Molecular Biology — 2 units

**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 lecture. **Transfer Credit: CSU; UC.**

## Biology A283—Genetics — 4 units

**Prerequisite:** Biology A181 or A181H or higher 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 lecture. **Transfer Credit: CSU; UC.**

## BROADCASTING ARTS

### Broadcasting Arts A105—Broadcast Journalism — 3 units

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 lecture. **Transfer Credit: CSU.**

## BUSINESS

### Business A100—Introduction to Business — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Business A100H—Honors Introduction to Business — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Business A107—MS Windows — 1 unit

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 lecture. **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.

### Business A110—Business Law — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Business A117—International Business Law — 3 units

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 lecture. **Transfer Credit: CSU.**

### Business A118—Introduction to International Business — 3 units

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 lecture. **Transfer Credit: CSU.**

### Business A119—Energy, Environment, & The Global Economy — 3 units

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 lecture. **Transfer Credit: CSU.**

### Business A120—Personal Financial Success — 3 units

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 lecture. **Transfer Credit: CSU.**

### Business A125—Business Mathematics — 3 units

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 lecture. **Transfer Credit: CSU.**

### Business A133—PowerPoint — 1 unit

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 lecture. **Transfer Credit: CSU.**

### Business A134—Excel 1 — 2 units

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 lecture. **Transfer Credit: CSU.**

### Business A138—Business English — 3 units

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 lecture. **Transfer Credit: CSU.**

### Business A139—Business Communication — 3 units

**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 lecture. **Transfer Credit: CSU.**

### Business A185—Public Relations — 3 units

*Formerly Business A140*

**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 Communication Studies A185. Students completing Business A185 may not receive credit for Communication Studies A185. Three hours lecture. **Transfer Credit: CSU.**

### Business A200—Business Finance — 3 units

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 lecture. **Transfer Credit: CSU.**

### Business A210—Securities Investment — 3 units

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 lecture. **Transfer Credit: CSU.**

## Business A212—Practical Investment Management — 3 units

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 lecture. **Transfer Credit: CSU.**

## Business A234—Excel 2 — 2 units

**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 lecture. **Transfer Credit: CSU.**

## Business A239—Professional Communication — 3 units

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 lecture. **Transfer Credit: CSU.**

## Business A240—Introduction to Entrepreneurship — 3 units

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 lecture. **Transfer Credit: CSU.**

## CARDIOVASCULAR TECHNOLOGY

### Cardiovascular Technology A100—Introduction to Electrocardiography — 2 units

**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 units

**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.**

### Cardiovascular Technology A150—Advanced Electrocardiography — 2 units

**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 units

**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 — 5 units

**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 units

**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 unit

**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 lecture. **Transfer Credit: CSU.**

### Cardiovascular Technology A210—Echocardiography Clinical Lab 1 — 5 units

**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 units

**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 clinical. **Transfer Credit: CSU.**

### Cardiovascular Technology A250—Advanced Echocardiography — 3 units

**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. Three hours lecture. **Transfer Credit: CSU.**

### Cardiovascular Technology A255—Advanced Echocardiography Lab — 1 unit

**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 lecture. **Transfer Credit: CSU.**

### Cardiovascular Technology A260—Cerebrovascular and Peripheral Ultrasound — 2.5 units

**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 lecture, one and one-half hours lab. **Transfer Credit: CSU.**

### Cardiovascular Technology A265—Echocardiography Clinical Lab 2 — 6 units

**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 A020—Problem Solving in Organic Chemistry 1 — 1 unit

**Prerequisite:** Chemistry A185

This course covers problem-solving skills and strategies that enhance success in Chemistry A220. Topics include problems in organic chemical structure, nomenclature, reactions and reaction mechanisms. One hour lecture. Not applicable to AA/AS degree.

### Chemistry A025—Problem Solving in Organic Chemistry 2 — 1 unit

**Prerequisite:** Chemistry A185

This course covers problem-solving skills and strategies that enhance success in Chemistry A225. Topics include problems in organic chemical structure, nomenclature, reactions and reaction mechanisms. One hour lecture. Not applicable to AA/AS degree.

## Chemistry A100—Principles of Chemistry — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

## Chemistry A110—Introduction to Chemistry — 5 units

**Prerequisite:** Mathematics A010 or higher 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—Preparation for General Chemistry — 4 units

**Prerequisite:** Mathematics A030 or higher (or appropriate placement).

**Advisory:** Eligibility for English as a Second Language 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 A — 5 units

**Prerequisite:** Math A030 or higher (or appropriate placement) with grade of 'C' or better, and Chemistry A130 or higher (or appropriate placement) with grade of 'C' or better based on chemistry assessment plus one year of high school chemistry.

**Safety prerequisite:** English as a Second Language students must be eligible to enter English as a Second Language A031 and English as a Second Language A035.

This course studies gases, solutions, reactions, bonding theories, acid-base, and redox theory. Four hours lecture, five hours laboratory. **Transfer Credit: CSU; UC. C-ID CHEM 110**

## Chemistry A185—General Chemistry B — 5 units

**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 A — 3 units

**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 lecture. **Transfer Credit: CSU; UC.**

## Chemistry A220L—Organic Chemistry Laboratory A — 2 units

*Formerly Chemistry A221*

**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.**

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.

## Chemistry A225—Organic Chemistry B — 3 units

**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 lecture. **Transfer Credit: CSU; UC.**

## Chemistry A225L—Organic Chemistry Laboratory B — 2 units

*Formerly Chemistry A226*

**Prerequisite:** Chemistry A220L.

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 1 — 5 units

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. Five hours lecture. **Transfer Credit: CSU, UC.**

## COMMUNICATION STUDIES

*(Formerly Speech Communications)*

### Communication Studies A100—Interpersonal Communication — 3 units

*Formerly Speech Communications A100*

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 lecture. **Transfer Credit: CSU; UC. C-ID COMM 130**

### Communication Studies A105—Intrapersonal Communications — 3 units

*Formerly Speech Communications A105*

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 lecture. **Transfer Credit: CSU.**

## Communication Studies A110—Public Speaking — 3 units

*Formerly Speech Communications A110*

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 lecture. **Transfer Credit: CSU; UC. C-ID COMM 110**

## Communication Studies A120—Reader's Theater and Oral Interpretation — 3 units

*Formerly Speech Communications A120*

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 lecture. **Transfer Credit: CSU; UC.**

## Communication Studies A150—Forensics Workshop — 1-4 units

*Formerly Speech Communications A150*

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.**

## Communication Studies A155—Intercultural Communications — 3 units

*Formerly Speech Communications A155*

The study, practice, and application of communication theories as they relate to different cultural, sub-cultural, 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 lecture. **Transfer Credit: CSU; UC.**

## Communication Studies A165—Men, Women, and Communication — 3 units

*Formerly Speech Communications A165*

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 Communication Studies A165 may not receive credit for Gender Studies A165. Three hours lecture. **Transfer Credit: CSU.**

## Communication Studies A170—Nonverbal Communication — 3 units

*Formerly Speech Communications A170*

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 lecture. **Transfer Credit: CSU.**

## Communication Studies A180—Introduction to Mass Communications — 3 units

*Formerly Mass Communications A100*

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 lecture. **Transfer Credit: CSU; UC.**

## Communication Studies A185—Public Relations — 3 units

*Formerly Mass Communications A140*

**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 A185. Students completing Communication Studies A185 may not receive credit for Business A185. Three hours lecture. **Transfer Credit: CSU.**

## Communication Studies A220—Essentials of Argumentation — 3 units

*Formerly Speech Communications A130*

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 lecture. **Transfer Credit: CSU; UC.**

## COMPUTER AND HIGH TECHNOLOGY

### Computer and High Technology A100—Computer Use in Technology — 3 units

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 lecture. **Transfer Credit: CSU.**

## COMPUTER INFORMATION SYSTEMS

### Computer Information Systems A090—Beginning Computer Keyboarding 1 — 1.5 units

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 units

**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 units

**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 units

**Advisory:** Computer Information Systems A090 or equivalent.

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 lecture. **Transfer Credit: CSU; UC.**

### Computer Information Systems A106—PC Concepts: Linux/Certification Preparation — 4 units

**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. Three and one-half hours lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

### Computer Information Systems A107—MS Windows — 1 unit

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 lecture. **Transfer Credit: CSU.**

### Computer Information Systems A109—Introduction to Linux — 2 units

**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. Two hours lecture, one hour non-lecture. **Transfer Credit: CSU.**

### Computer Information Systems A110—PC Concepts: A+ Certification Preparation — 4 units

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 units

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 units

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 lecture. **Transfer Credit: CSU.**

### Computer Information Systems A117—Computing Tools for Today's Student — 2 units

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 A123—Introduction to Web Page Design — 2 units

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 A128—Introduction to Dreamweaver — 2 units

**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 lecture. **Transfer Credit: CSU.**

### Computer Information Systems A129—Cascading Style Sheets (CSS) for Web Pages — 2 units

**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 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A132—Business Multimedia and Graphics — 2 units

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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A133—PowerPoint — 1 unit

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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A134—Excel 1 — 2 units

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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A135— Introduction to Microsoft Access — 2 units

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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A137— Microsoft Outlook — 1 unit

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 lecture. **Transfer Credit: CSU.**

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## Computer Information Systems A141— Flash Programming — 3 units

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 offered online. Three hours lecture, one hour lab. **Transfer Credit: CSU.**

## Computer Information Systems A149—Office Skills — 3 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A162— Fundamentals of Information Security — 3 units

**Advisory:** Computer Information Systems A110, or A191, or A260.

This course provides the fundamental knowledge necessary for a student to become proficient in the field of Information Security. This course will prepare the student for a wide variety of security responsibilities. The curriculum covers a wide range of security concepts, including: General Security Concepts, Communication Security, Infrastructure Security, Basics of Cryptography, and Operational and Organizational Security. This course covers CompTIA's Security+ content and provides preparation for students seeking the CompTIA Security+ Certification. Two and-a-half hours lecture, one and-a-half hours lab. **Transfer Credit: CSU.**

## Computer Information Systems A163—Windows Desktop Administration — 3 units

**Advisory:** Computer Information Systems A110.

Provides students with the knowledge required to work in enterprise environments that use Microsoft Windows desktop operating systems. Students will learn to install, deploy, and upgrade the Windows operating system, including ensuring hardware and software compatibility, configure pre-installation and post-installation system settings, security features, network connectivity applications and mobile computing. Students will also be able to maintain systems, including monitoring for and resolving performance and reliability issues. Will help prepare students for the Microsoft Certified IT Professional (MCITP) exams. Two and-a-half hours lecture, one and-one-half hours lab. This course may also be offered online. **Transfer Credit: CSU.**

## Computer Information Systems A171—JavaScript 1 — 2 units

**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 units

**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 units

**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 units

**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 execution plans, real-time performance monitoring, and application tracing. Provides preparation for students seeking the Oracle Certified Professional certification. Two hours lecture. **Transfer Credit: CSU.**

## Computer Information Systems A179—PL/SQL II — 2 units

**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. Two hours lecture. **Transfer Credit: CSU.**

## Computer Information Systems A182— Introduction to Database Concepts — 4 units

**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 online. May be taken for grades or on a pass-no pass basis. Four hours lecture. **Transfer Credit: CSU.**

## Computer Information Systems A183— Oracle SQL Programming — 4 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A184— Oracle PL/SQL Programming — 3 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A185—Oracle Forms and Reports Developer — 4 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A187—Oracle Database Administration I — 4 units

**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. Four hours lecture. **Transfer Credit: CSU.**

## Computer Information Systems A188—Oracle Database Administration II — 3 units

**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. Three hours lecture. **Transfer Credit: CSU.**

## Computer Information Systems A191—Network and Communications Technologies — 4 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A192— Network Server Administration — 3 units

**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 Certified IT Professional (MCITP) exams. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Two and-a-half hours lecture, one and-one-half hours lab. **Transfer Credit: CSU.**

## Computer Information Systems A193—Network Infrastructure Administration — 3 units

**Advisory:** Computer Information Systems A191.

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 Certified IT Professional (MCITP) 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 units

**Advisory:** Computer Information Systems A191.

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 Certified IT Professional (MCITP) 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 Enterprise Administration — 4 units

**Advisory:** Computer Information Systems A192.

This course will prepare students for the role of "Enterprise Administrator". The Enterprise Administration will be responsible for the management of the overall Windows server environment and architecture. The Enterprise Administrator translates business goals into technology decisions and designs mid-range to long-term strategies. The Enterprise Administrator is will also be responsible for infrastructure design and global configuration changes. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours lecture. **Transfer Credit: CSU.**

## Computer Information Systems A197— Networking Essentials (Cisco 1) — 4 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A198—Routing and Router Configurations (Cisco II) — 3 units

**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 units

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, zero to three hours non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A223—JavaScript 2 — 2 units

**Advisory:** Computer Information Systems A123 and A171.

For students who already know how to create web pages using XHTML and JavaScript, this course covers advanced features of web page design. Topics include manipulating cookies, debugging, using the Document Object Model (DOM), introduction to HTML5, JavaScript Toolkits, and writing AJAX scripts. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours lecture. **Transfer Credit: CSU.**

## Computer Information Systems A224— ASP.NET Programming — 4 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A231— Microsoft Word 2 — 2 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A232—Digital Video for Business: Adobe Premiere Pro — 3 units

**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 units

**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 lecture. **Transfer Credit: CSU.**

## Computer Information Systems A260— Convergence Technologies — 3 units

**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 units

**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 units

**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.**

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.

## Computer Information Systems A263—Home Technology Integration — 3 units

**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 units

**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. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A266—Enterprise Router Configurations 2 — 3 units

**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. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A267— LAN Switching (Cisco III) — 3 units

**Prerequisite:** Computer Information Systems A197.

In this class students will become familiar with switch concepts, LAN design, VLAN implementation, interVLAN routing, VTP, and Cisco switch configuration and the emphasis is on hands-on training. This course covers Cisco's CCNA III content and provides preparation for students seeking the Cisco CCNA Certification. This course may also be offered online. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A268— Accessing the WAN (Cisco IV) — 3 units

**Prerequisite:** Computer Information Systems A197.

In this class students will become familiar with Wide Area Network (WAN) technologies; Access Control Lists (ACLs), WAN protocols, NATing, Security, and Frame Relay. This course covers Cisco's CCNA IV content and provides preparation for students seeking the Cisco CCNA Certification. This course may also be offered online. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A280— Information and Storage Management — 3 units

**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. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A281—Cloud Infrastructure & Services — 3 units

**Advisory:** Computer Information Systems, A110, or A191, or A260.

This course educates students about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic, virtualized, and cloud data center environments. These technologies include compute, storage, networking, desktop and application virtualization. Additional areas of focus are backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of a data center to a cloud computing environment. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A282—Ethical Hacking and Network Defense — 3 units

**Advisory:** Computer Information Systems A261 and A260 or A191.

Students will learn how hackers attack computers and networks, and how to protect Windows and Linux systems. Legal restrictions and ethical guidelines will be taught and enforced. Students will perform many hands-on labs; attacking and defending, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors. This course may also be offered online. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A285— Virtual Desktop, Installation, Configuration & Management — 3 units

**Advisory:** Computer Information Systems A261 and A260 or A191.

Students will learn the concepts and capabilities of virtual desktops with a focus on the installation, configuration, and management of virtual desktops and thin clients using tools such as VMware. This course will provide applications-oriented administrators with the knowledge and skills to virtualize applications with VMware ThinApp, modify parameters to handle special circumstances, and choose the best deployment and updating processes for organizational environments. This course may also be offered online. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A286— Virtual Infrastructure, Installation, Configuration & Management — 3 units

**Advisory:** Computer Information Systems A261 and A260 or A191.

Students will learn the concepts and capabilities of virtual architecture with a focus on the installation, configuration, and management of virtual infrastructure using tools such as VMWare®. This course covers fundamentals of virtual network design and implementation, fundamentals of storage area networks, virtual switching, virtual system management, and engineering for high availability. This course may also be offered online. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## Computer Information Systems A290—Small/ Home Office: Case Study 1 — 3 units

**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. Two and one-half hours lecture, one and one-half hour non-lecture. **Transfer Credit: CSU.**

## COMPUTER SCIENCE

### Computer Science A101—Introduction to Programming — 1 unit

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++. One hour lecture. **Transfer Credit: CSU; UC.**

### Computer Science A140—Introduction to C#.NET Programming — 4 units

**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 units

**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 units

**Prerequisite:** Computer Science A140 or A142 or A170.

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. This course may also be offered online. **Transfer Credit: CSU; UC.**

### Computer Science A152—Developing Windows Applications with .NET — 4 units

**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 lecture. **Transfer Credit: CSU.**

### Computer Science A170—Java Programming 1 — 4 units

**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 units

**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 lecture. **Transfer Credit: CSU; UC.**

### Computer Science A216—Computer Architecture — 4 units

**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 lecture. **Transfer Credit: CSU; UC.**

### Computer Science A220—Software Engineering — 4 units

**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 lecture. **Transfer Credit: CSU; UC.**

### Computer Science A250—C++ Programming Language 2 — 4 units

**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 units

**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 lecture. **Transfer Credit: CSU.**

### Computer Science A265—Theories of Computation — 1 unit

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. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Two hours lecture. **Transfer Credit: CSU; UC.**

### Computer Science A272—Java Programming 2 — 4 units

**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 lecture. **Transfer Credit: CSU.**

### Computer Science A280—Current Topics in Computing — 1-4 units

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, zero to three hours non-lecture. **Transfer Credit: CSU.**

## CONSTRUCTION TECHNOLOGY

### Construction Technology A114— Cabinet Making — 4 units

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 units**

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 A150—Electronics for Electricians — 4 units**

Introduction to basic DC and AC circuits and electronic devices. Covers history of electronics, basic electricity, math, circuit theory, circuit components, digital electronics, schematics, test equipment. Labs will cover practical applications of all covered topics. Three hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology A154—Residential Drywall & Taping — 1.5 units**

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. One hour lecture, one and one-half hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology A155—Structure Wiring Installation — 2 units**

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. One hour lecture, three hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology A156—National Electrical Code — 2 units**

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. Two hours lecture. **Transfer Credit: CSU.**

## **Construction Technology A157—Photovoltaic System Installation — 4 units**

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. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology A158—Photovoltaic System Installation II — 4 units**

Prerequisite: Construction Technology A157.

Continuation of Photovoltaic Systems principles. 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. Two and one-half hours lecture, eight hours non-lecture. **Transfer Credit: CSU.**

All courses numbered A100 or higher are transferable to the California State Universities (CSU).

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## **Construction Technology A161—Solar Water and Pool Heating Installation — 4 units**

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. Two hours lecture, four hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology A165—Construction Safety/CAL OSHA — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A170—Introduction to Construction — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A180—Building Construction — 5 units**

**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 units**

**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 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A195—Building Code and Law — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A199—Current Topics in Construction Technology — 1-4 units**

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, zero to three hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology A210—Concrete Construction — 5 units**

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 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A225—Land and Building Development — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A230—Construction Inspection — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A235—Contractor's Business Practice — 3 units**

Fundamentals of the construction industry; terminology and procedures; an overview of its trades, skills, and processes. Three hours lecture. **Transfer Credit: CSU.**

## **Construction Technology A240—Specialty Crafts — 5 units**

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 units**

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 lecture. **Transfer Credit: CSU.**

## **Construction Technology A252—Business Law for Contractors — 1.5 units**

Legal aspects of the formation, operation, regulatory requirements, financing, and contracts for successfully operating a construction contracting business in California. Three hours lecture. **Transfer Credit: CSU.**

## **Construction Technology A255—Construction Finance — 3 units**

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 — 5 units**

Covers masonry history, employment, tools, materials, construction and blueprint reading with estimating, construction of walls, paving, veneering, tile, arches, and concrete masonry block. Three hours lecture, six hours non-lecture. **Transfer Credit: CSU.**

## **Construction Technology A265—Plumbing 1 — 4 units**

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 units**

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 units**

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 units**

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 units**

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 units**

**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.**

## **Construction Technology A296—Solar Energy Internship — 1-4 units**

**Prerequisite:** Construction Technology A157, A161, A165, A170, A190, A193 and A197.

This course is designed as a supervised internship course for the Solar Installation student. Students will gain hands-on experience at the job site which will enhance his/her academic learning. PV Installation II may be taken concurrently with this course. May be either a paid or unpaid position. This course may be taken two times. Three to twelve hours arranged. **Transfer Credit: CSU.**

## COUNSELING

### **Counseling A100—Introduction to College — 1 unit**

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 lecture. **Transfer Credit: CSU.**

### **Counseling A101—New Horizons for Adults Returning to College — 1 unit**

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 lecture. **Transfer Credit: CSU.**

### **Counseling A104—Career & Life Planning: A Holistic Approach — 3 units**

In depth career and life planning: Designed primarily for students uncertain about educational-occupational plans. Standardized tests of interests, personality characteristics, and values are utilized to develop a systemic approach to career and life development. This course emphasizes the importance of taking personal responsibility for one's educational, career and personal decisions to achieve satisfaction through work and life balance. This course may also be offered online. Three hours lecture. **Transfer Credit: CSU.**

### **Counseling A105—Strategies for College Success — 3 units**

*Formerly Counseling A102*

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 lecture. **Transfer Credit: CSU; UC.**

## **Counseling A106—High School Early Entry Orientation — .5 units**

Designed to provide high school seniors with information and skills to facilitate their matriculation, registration and transition to Orange Coast College. Familiarize students with educational options, requirements and tools. Introduce students to the campus climate, services, policies and student success principles. Completion of this course grants credit for New Student Orientation requirements and continuing student status for registration in the subsequent term.

## **Counseling A109—Developing and Understanding Happiness — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Counseling A110—Applied Stress Management — 2 units**

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 lecture. **Transfer Credit: CSU.**

## **Counseling A120—Career Decision Making — Accelerated — 2 units**

An accelerated class designed for students who are returning to college and are uncertain about their educational-occupational plans. Career inventories 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 lecture. **Transfer Credit: CSU.**

## **Counseling A135—Principles of Effective Parenting — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Counseling A199—Topics in Counseling — .5-3 units**

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 lecture. **Transfer Credit: CSU.**

## CULINARY ARTS

### **Culinary Arts A100—Introduction to the Hospitality Industry — 3 units**

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 lecture. **Transfer Credit: CSU.**

**Culinary Arts A120—Culinary Principles 1 — 3 units**

**Prerequisite:** Food Service Management A160.

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 units**

**Prerequisite:** Culinary Arts A120 and Food Service Management A160.

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 units**

**Prerequisite:** Food Service Management A160.

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 units**

**Prerequisite:** Culinary Arts A124 and Food Service Management A160.

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 units**

**Prerequisite:** Food Service Management A160.

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.**

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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.

**Culinary Arts A199—Current Issues in Culinary Arts — .5-1.5 units**

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 lecture. **Transfer Credit: CSU.**

**Culinary Arts A200—Garde Manger 1 — 2 units**

**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 A210—Directed Practice for Culinary Arts 1 — 2 units**

**Prerequisite:** Culinary Arts A120, A124, and A149.

**Advisory:** Culinary Arts A122.

This is a directed practice opportunity for Culinary Arts which includes practical training in the OCC cafeteria operation. Students will rotate through the major areas in the kitchen in supervised settings. Students will be required to follow Culinary Department dress standards. TB clearance required. One 6-hour seminar, 6.7-8.3 weekly arranged laboratory. **Transfer Credit: CSU.**

**Culinary Arts A215—Directed Practice for Culinary Arts 2 — 2 units**

**Prerequisite:** Culinary Arts A122, A200, A210, and A245.

This course is primarily a directed-practice (work experience) in an off-site kitchen. Examples of work sites include restaurants, hotels, country clubs or other commercial facilities and are approved by the program coordinator. Students will practice proper interview techniques, develop a resume, career goals and action plan. 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.

One 6-hour seminar, 6.7-8.3 weekly arranged laboratory. **Transfer Credit: CSU.**

**Culinary Arts A226—Principles of Pastry Arts — 3 units**

**Prerequisite:** Culinary Arts A124 and A126.

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 units**

**Prerequisite:** Culinary Arts A124.

**Advisory:** Culinary Arts A126.

A directed opportunity for on-the-job baking and pastry training that includes practical training at OCC bakery in quantity bakery production. 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. 6.7 — 8.3 weekly hours arranged, plus one six-hour seminar. **Transfer Credit: CSU.**

**Culinary Arts A237—Directed Practice for Baking & Pastry 2 — 2 units**

**Prerequisite:** Culinary Arts 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. One 6-hour seminar, 6.7 — 8.3 weekly arranged field work. **Transfer Credit: CSU.**

**Culinary Arts A245—Culinary Principles 3 — 3 units**

**Prerequisite:** Culinary Arts A122, A124, A149, and Food Service Management A160.

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 units**

**Prerequisite:** Culinary Arts A200, and Food Service Management A160.

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 units**

**Prerequisite:** Culinary Arts A122, A124, A149, and Food Service Management A160.

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.**

## Culinary Arts A270—Ice Carving — 1 unit

**Prerequisite:** Culinary Arts A149.

**Corequisite:** Art A107 or A141.

Course on Ice Carving and Design Techniques: Emphasis is on carving the medium of ice for the Culinary Arts and Hospitality Field, Methods of Ice Carving, Fabrication of an Ice Block, Professional tools and chisels, safe ice carving techniques, art and design principles, display and lighting, and fusing techniques. Student will be required to follow hospitality department dress standards. TB clearance required. This course may be taken two times. One-half hour lecture, one hour lab. **Transfer Credit: CSU.**

## DANCE

### Dance A101—Modern Dance 1 — .5-2 units

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. One-quarter to one hour lecture, three-quarter to three hours activity. **Transfer Credit: CSU; UC.**

### Dance A102—Modern 2 — .5-2 units

**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 units

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. One quarter to one hour lecture, three-quarter to three hours activity. **Transfer Credit: CSU; UC.**

### Dance A107—Conditioning for Dance — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A108—Pilates Mat Work — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours activity. **Transfer Credit: CSU; UC.**

### Dance A110—Ballet 1 — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours activity. **Transfer Credit: CSU; UC.**

### Dance A111—Ballet 2 — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours lab. **Transfer Credit: CSU; UC.**

### Dance A115—Yoga for Dancers — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours activity. **Transfer Credit: CSU; UC.**

### Dance A116—Latin Dance Styles — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A117—American Social Dance Styles — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A118—Dance Workout for the Maturing Body — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A119—Kinesiology for Dance — 3 units

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 lecture. **Transfer Credit: CSU.**

### Dance A120—Jazz Dance 1 — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A121—Jazz Dance 2 — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A125—Tap 1 — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A126—Tap 2 — .5-2 units

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. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

### Dance A129—Pilates Methodology — 2 units

**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 units

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 units

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.**

## Dance A135—Flamenco Dance 1 — .5-2 units

A technique course in the study of various dance forms and rhythms in flamenco dance. Emphasizes 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 units

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 units

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 units

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 — .5-2 units

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 units

**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.**

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## Dance A144—Ballet 3-4 — .5-2 units

**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 units

**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 hours lecture, .75-3.0 hours activity. **Transfer Credit: CSU; UC.**

## Dance A146—Tap 3-4 — .5-2 units

**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 units

**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 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 units

**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 units

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 unit

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 unit

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 A152—Pilates Apparatus and Mat Work Level 1 — .5-2 units

A beginning level 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 three times. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

## Dance A153—Pilates Apparatus and Mat Work Level 2 — .5-2 units

An intermediate 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 three times. One quarter to one hour lecture, three-quarter to three hours non-lecture. **Transfer Credit: CSU; UC.**

## Dance A162—Dance Composition/Choreography — 3 units

**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 only. This course may be taken four times. Three hours lecture, one hour non-lecture. **Transfer Credit: CSU; UC.**

## Dance A170—Music for Dancers — 2 units

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 units

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 units

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 unit

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 units

**Prerequisite:** Eligibility based on successful audition.

**Corequisite:** Dance A130 or A135 or A138 or A147 or recommendation of the instructor.

**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 units

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—Pilates 3-4 — 1.5-3 units

**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. This course may be taken four times. Six hours lecture, six hours non-lecture. **Transfer Credit: CSU; UC.**

## Dance A210—Dance Methodology — 3 units

**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 units

**Corequisite:** Dance A137 or A143 or A144 or A145 or A146 or A147 or A148.

**Advisory:** Intermediate or advanced dance skills in modern, ballet, jazz, tap or world dance. This recommended preparation will be validated in class during the first week of the course.

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.**

## Dance A215—Internship — 1-2 units

**Prerequisite:** Successful audition. This prerequisite will be validated in class during the first week of the course. A supervised internship related to classroom-based learning at a dance or Pilates-related work site. For the Dance Instructor, students should have taken choreography and be in at least one advanced technique dance class; for World Dance, students should be in at least one advanced level technique classes; and for the Pilates/Dance Instructor, students should be in or have taken the Level 2 DANC A128 and DANC A108. **Recommendation:** Ideally, the first unit of internship should be taken at the same time as Dance A210 or Dance A124. This course may be taken twice. **Transfer Credit: CSU.**

## DENTAL ASSISTING

### Dental Assisting A100—Dental Anatomy — 2 units

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 units

**Corequisite:** Dental Assisting A120.

Four handed dentistry. History of the dental profession, Dental Practice Act, law and ethics. Charting, infection control protocols, 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 units

**Prerequisite:** Dental Assisting A110.

**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 units

**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 units

**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 unit

**Corequisite:** Dental Assisting A110.

Discussion of current concepts of preventive dentistry. Etiology of dental disease, nutrition, oral hygiene techniques, and home care are covered in detail. Applied psychology for the dental patient is presented. Includes community dental project. Two hours. **Transfer Credit: CSU.**

### Dental Assisting A140—Dental Radiography 1 — 3 units

**Corequisite:** Dental Assisting A110.

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, bisection, and paralleling techniques and practical application are presented. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

### Dental Assisting A145—Dental Radiography 2 — 2 units

**Prerequisite:** Dental Assisting A165.

**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—Specialized Practices — 2 units

**Prerequisite or concurrent enrollment:** 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 unit**

**Corequisite:** Dental Assisting A120, A130, and A140.

The first clinical experience in the practice of dental assisting. Each student will be assigned to UCLA School of Dentistry. Students are required to follow the dress code standards set up by the program, UCLA School of Dentistry and Cal-DOSH mandates. Eight hours weekly for eight weeks with one hour seminar weekly. Offered on a grade basis only. **Transfer Credit: CSU.**

**Dental Assisting A163—Clinical Experience 2 — 1 unit**

**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. Thirty-two hours clinical. **Transfer Credit: CSU.**

**Dental Assisting A165—Clinical Experience 3 — 2.5 units**

**Corequisite:** Dental Assisting A125, A115, A145, and A163.

The third in a series of opportunities for clinical practice of concepts in dental assisting. Each student will be assigned to a dental office for either general dentistry or a specialty practice. Students are required to follow the dress code standards set up by the program 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 unit**

**Corequisite:** 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. Twenty-four hours clinical. **Transfer Credit: CSU.**

**Dental Assisting A175—Principles of Business and Practice Management — 1.5 units**

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 units**

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.**

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**DIAGNOSTIC MEDICAL SONOGRAPHY**

**Diagnostic Medical Sonography A123—Sectional Anatomy for Medical Imaging — 4 units**

**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 units**

**Prerequisite:** Diagnostic Medical Sonography A123.

A cross-sectional anatomical and sonographic study of the female reproductive system including the nonpregnant 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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**Prerequisite:** Diagnostic Medical Sonography A271.

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.**

## DIGITAL MEDIA ARTS AND DESIGN

### Digital Media Arts and Design A115—Lettering and Digital Typography — 4 units

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 units

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 units

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, UC.**

### Digital Media Arts and Design A151—History of Graphic Design — 3 units

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 units

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 units

**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—Designing for Print — 4 units

**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 units

**Prerequisite:** 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 units

**Prerequisite:** 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 units

**Prerequisite:** 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—Web Design for Artists & Graphic Designers — 4 units

**Prerequisite:** Digital Media Arts & Design A181.

**Advisory:** Digital Media Arts & Design 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 A202—Internship — 2 units

A supervised internship related to classroom-based learning at a work site related to the student's certificate program. This course is open to students who have completed four courses in one of the digital media arts and design certificate programs. This course may be taken two times. Eight hours field; one half-hour lecture. **Transfer Credit: CSU.**

### Digital Media Arts and Design A262—Digital Video with Final Cut Pro — 4 units

**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 units

**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, multi-media 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 units

**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 units

**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.**

### Digital Media Arts and Design A289—Portfolio Development — 3 units

**Prerequisite:** Digital Media Arts & Design A181

Designed for intermediate and advanced level students wishing to pursue a career in digital media arts and design. Topics include selection of work, sequencing, presentation formats, and professional practices (proposals, billing, copyright, resumes etc.) May be repeated with different subject matter and presentation styles. Strongly recommended for digital media arts and design majors. Intermediate and advanced students develop a portfolio to pursue a career in digital media arts and design. Topics include selection of work, sequencing, presentation formats, and professional practices (proposals, billing, copyright, resumes etc.) May be repeated with different subject matter and presentation styles. Strongly recommended for digital media arts and design majors. **Transfer Credit: CSU.**

## DISPLAY AND VISUAL PRESENTATION

### Display and Visual Presentation A180—Introduction to Display and Visual Presentation — 3 units

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.**

**EARLY CHILDHOOD**

**Early Childhood A100—Parent/Infant Workshop — 1 unit**

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 unit**

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 units**

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 units**

This course is designed to introduce students to the field of early childhood education for children birth through age eight. Included are introduction to theory, basic child development, teacher's role, developmentally appropriate practices, and career opportunities, with a strong focus on teacher communication skills. Three hours lecture. **Transfer Credit: CSU.**

**Early Childhood A126—Cross-Cultural Perspectives on Child Development — 3 units**

**Prerequisite:** Human Development A180 or concurrent enrollment.

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 lecture. **Transfer Credit: CSU.**

**Early Childhood A127—Health, Safety, and Nutrition — 3 units**

**Prerequisite:** Human Development A180.

Introduction to the laws, regulations, standards, policies and procedures and early childhood curriculum related to child health, safety, and nutrition. The key components that ensure physical health, mental health and safety for both children and staff will be identified along with the importance of collaboration with families and health professionals. Focus on integrating the concepts into everyday planning and program development for all children. Three hours lecture. **Transfer Credit: CSU.**

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**Early Childhood A130—Language Arts for Children — 3 units**

**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 lecture. **Transfer Credit: CSU.**

**Early Childhood A131—Creativity for Children — 3 units**

**Prerequisite:** Human Development A180 or concurrent enrollment.

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 lecture. **Transfer Credit: CSU.**

**Early Childhood A132—Science & Math for Young Children — 3 units**

**Prerequisite:** Human Development A180 or concurrent enrollment.

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 lecture. **Transfer Credit: CSU.**

**Early Childhood A155—Principles & Practices of Teaching Young Children — 3 units**

**Prerequisite:** Human Development A180 or concurrent enrollment.

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 lecture. **Transfer Credit: CSU.**

**Early Childhood A156—Early Childhood Laboratory — 2 units**

**Prerequisite:** Early Childhood A155 or concurrent enrollment.

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 units**

**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 lecture. **Transfer Credit: CSU.**

**Early Childhood A165—Observing and Recording Child Behavior — 3 units**

**Prerequisite:** Early Childhood A155, and 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 units**

Practical approaches to building relationships with parents through effective communication techniques and supporting families of children with identified or suspected special needs. Three hours lecture. May be repeated four times. **Transfer Credit: CSU.**

**Early Childhood A199—Current Issues in Early Childhood — .5-2 units**

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 lecture. **Transfer Credit: CSU.**

**Early Childhood A200—Preschool Programs—The Curriculum — 1 unit**

**Prerequisite:** Early Childhood A155 or concurrent enrollment.

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. One hour lecture. **Transfer Credit: CSU.**

**Early Childhood A201—Early Childhood Field Experience — 3 units**

**Prerequisite:** Early Childhood A156.

**Prerequisite or concurrent enrollment:** Early Childhood A200.

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 units**

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 lecture. **Transfer Credit: CSU.**

**Early Childhood A218—Infant/Toddler Curriculum — 2 units**

**Prerequisite:** Early Childhood A220 or concurrent enrollment.

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 lecture. **Transfer Credit: CSU.**

## Early Childhood A220—Infant/Toddler Programs — 3 units

**Prerequisite:** Human Development A184 and Early Childhood A220 or concurrent enrollment.

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 units

**Prerequisite:** Human Development A184 and Early Childhood A220 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 units

**Prerequisite:** Human Development A182 or concurrent enrollment.

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 units

**Prerequisite:** Human Development A182 or concurrent enrollment.

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 units

**Prerequisite:** Early Childhood A229 or concurrent enrollment.

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 — 1 unit

**Prerequisite:** Human Development A210 or concurrent enrollment.

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, collaborating with specialists, and specific strategies for the classroom. One hour lecture. **Transfer Credit: CSU.**

## Early Childhood A241—Field Experience with Children with Special Needs — 3 units

**Prerequisite:** Early Childhood A240 or concurrent enrollment.

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 units

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 lecture. **Transfer Credit: CSU.**

## Early Childhood A262—Disaster Preparedness for Child Care — .5 units

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 lecture. **Transfer Credit: CSU.**

## Early Childhood A263—Child Abuse I.D. and Referral — .5 units

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 lecture. **Transfer Credit: CSU.**

## Early Childhood A275—Early Childhood Administration--Program — 3 units

**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 lecture. **Transfer Credit: CSU.**

## Early Childhood A276—Early Childhood Management — 3 units

**Prerequisite:** Early Childhood A200, or A220, or A229.

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 lecture. **Transfer Credit: CSU.**

## Early Childhood A277—Adult Supervision in Early Childhood Programs — 2 units

**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 lecture. **Transfer Credit: CSU.**

## ECOLOGY

### Ecology A100—Human Ecology — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Ecology A110—Island Ecology — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Ecology A121—Marine Intertidal Ecology — 1 unit

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 unit

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 lecture. **Transfer Credit: CSU.**

## ECONOMICS

### Economics A100—Economics: General Concepts — 3 units

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 lecture. **Transfer Credit: CSU; UC.**

### Economics A110—Consumer Economics — 3 units

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 lecture. **Transfer Credit: CSU.**

### Economics A170—Microeconomics — 3 units

*Formerly Economics A185*

**Prerequisite:** Mathematics A030.

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 lecture. **Transfer Credit: CSU; UC.**

### Economics A175—Macroeconomics — 3 units

*Formerly Economics A180*

**Prerequisite:** Mathematics A030.

**Advisory:** Economics A170.

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 lecture. **Transfer Credit: CSU; UC.**

### Economics A199—Current Topics in Economics — 5-3 units

**Advisory:** Economics A170 and Economics A175.

This course provides a study and discussion of topics and issues of current issues in economics. Units vary according to topic selected, semester offered, and number or meetings scheduled. This course may be taken four times, but never with all the same topics covered. Three hours lecture. **Transfer Credit: CSU.**

**EDUCATION**

**Education A102—Teaching in a Diverse Contemporary Classrooms — 1 unit**

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 units**

**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.**

**ELECTRONICS TECHNOLOGY**

**Electronics Technology A047—Electronic Problem Solving — 3 units**

Topics from basic algebra and trigonometry will be applied toward the solution of both DC and AC passive circuitry problems. Three hours lecture.

**Electronics Technology A101—Robotics 1 Mechanics & Design — 4 units**

**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 lecture. **Transfer Credit: CSU.**

**Electronics Technology A135—Introduction to Digital Logic — 3.5 units**

**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 units**

**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.**

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.

**Electronics Technology A146—Introduction to Basic Computer Installation — 3 units**

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 units**

**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 units**

**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 unit**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units

**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 units

**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 SERVICES

*Formerly Emergency Medical Technology*

## Emergency Medical Services A100— Emergency Medical Responder — 4 units

Emergency Medical responder (advanced first aid and cardiopulmonary resuscitation). Students will receive an American Heart Association Healthcare Provider Card and a Course Completion certificate upon successful completion of the class. Four hours. **Transfer Credit: CSU.**

## Emergency Medical Services A150— Emergency Medical Services — 10 units

**Prerequisite:** American Heart Association Healthcare Provider CPR card. This prerequisite will be validated in class during the first week of the course.

**Corequisite:** Emergency Medical Services A151, A150L.

**Advisory:** Emergency Medical Services A100, English A099 or English as a Second Language A099 or higher.

An overview of the EMS's 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. Successful completion of all corequisite courses qualifies the graduating student to take the National Registry EMT certifying exam. Ten hours lecture **Transfer Credit: CSU.**

## Emergency Medical Services A150L— Emergency Medical Services Lab — 1 unit

**Prerequisite:** American Heart Association Healthcare Provider CPR card. This prerequisite will be validated in class during the first week of the course.

## Emergency Medical Services A151— EMT Clinical Internship — 1 unit

**Corequisite:** Emergency Medical Services A150.

Application and integration of skills and knowledge gained from EMT A150 in the emergency department of an acute hospital or other arranged clinical setting in accordance with California State Title 22, Section 9 regulations, 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 A145— Emergency Medical Care for Children — 1 unit

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 A160— EMT-1 Recertification — 1 unit

**Prerequisite:** Current EMS 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 EMS's scope of practice within Orange County, the State and Federal guidelines, and review of the required EMS 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.**

## ENGINEERING

### Engineering A180—Engineering Graphics — 3 units

**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 units

**Prerequisite:** Mathematics A185 or A182H or A185H and Physics A185.

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 units

**Prerequisite:** Mathematics A185 or A182H 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 units

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 units

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 units

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 units

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 units

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—Basic English Skills — 4 units

**Prerequisite:** Appropriate English placement score.

Study skills, reading, vocabulary, grammar, elemental principles of sentence structure, paragraph development, organization of ideas, punctuation and spelling. A minimum of five arranged hours of supplemental learning in the Success Center is required. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours lecture. Not applicable to AA or AS degree.

### English A099—Fundamentals of Composition — 3 units

**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. A minimum of five arranged hours of supplemental learning in the Success Center is required. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Four hours lecture.

### English A100—Freshman Composition — 3 units

**Prerequisite:** English A099 or English as a Second Language A099 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 lecture. **Transfer Credit: CSU; UC.**

**English A101—Critical Thinking, Reading, and Writing Through Literature — 3 units**

**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—Critical Thinking, Reading, and Writing Through Literature Honors — 3 units**

**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 units**

**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—Critical Reasoning, Reading, and Writing Through Nonfiction Honors — 3 units**

**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 units**

**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 units**

**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 units**

**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.**

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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.

**Creative Writing**

**English A119—Introduction to Creative Writing — 3 units**

**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 units**

**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 units**

**Prerequisite:** English A099 or English as a Second Language A099 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 units**

**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 units**

**Prerequisite:** English A099 or English as a Second Language A099 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 units**

**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 units**

**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—The Bible As Literature Honors — 3 units**

**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 — 3 units**

**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—Children's Literature Honors — 3 units**

**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 units

**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—Introduction to Science Fiction Honors — 3 units

**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 units

**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—Film As Literature Honors — 3 units

**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 A150—American Literature Before the 20th Century — 3 units

**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—American Literature Before the 20th Century Honors — 3 units

**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 units

**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—American Literature in the 20th Century Honors — 3 units

**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 units

**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—American Ethnic Literature Honors — 3 units

**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 units

**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—California Literature Honors — 3 units

**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—Masterpieces of World Literature Through Renaissance — 3 units

**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—Masterpieces of World Literature Through Renaissance Honors — 3 units

**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 units

**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—World Literature Since Renaissance Honors — 3 units

**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 A165—Introduction to Irish Literature — 3 units

Read, analyze, and write on important texts of Irish literature from the earliest periods to the present. Examine the philosophical, cultural, mythic, religious, and/or historical elements related to these texts. Appreciate the literary devices and styles evident in individual works and the commentary made by these works on moral, social, and aesthetic issues. Typical writers include anonymous writers of Irish myths, legends, and folklore, early poets, O'Casey, Lady Gregory, Joyce, Shaw, Synge, Wilde, Yeats. Three hours. **Transfer Credit:** CSU, UC.

## English A170—Modern and Post-Modern Literature — 3 units

**Advisory:** English A100.

Read, analyze, and write on important modern and postmodern 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—Modern and Post-Modern Literature Honors — 3 units

**Advisory:** English A100.

Read, analyze, and write on important modern and postmodern 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 units

**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 units

**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—Women Writers Honors — 3 units

**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 A176—World Mythology — 3 units

**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—World Mythology Honors — 3 units

**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 units

**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 A181—Shakespeare — 3 units

*Formerly English A175*

**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 A181H—Shakespeare Honors — 3 units

*Formerly English A175H*

**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 A187—Introduction to Literary Theory — 3 units

**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.**

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 A187H—Introduction to Literary Theory Honors — 3 units

**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 A270—British Literature Before 1800 — 3 units

*Formerly English A280*

**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 A270H—British Literature Before 1800 Honors — 3 units

*Formerly English A280H*

**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 A275—British Literature After 1800 — 3 units

*Formerly English A285*

**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 A275H—British Literature After 1800 Honors — 3 units

*Formerly English A285H*

**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.**

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 AS A SECOND LANGUAGE

### English as a Second Language A011—Beginning Listening and Speaking — 4 units

**Prerequisite:** Qualifying score on the English as a Second Language placement test administered through the OCC Assessment Center or approval of the English as a Second Language 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 units

**Prerequisite:** Qualifying score on the English as a Second Language placement test administered through the OCC Assessment Center or approval of the English as a Second Language Advisor. Also, qualifying score on the OCC English as a Second Language placement test for English as a Second Language A021 level or higher or concurrent enrollment in English as a Second Language A011.

Intensive 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 A021—Listening and Speaking Skills 1 — 3 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language 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. Not applicable to AA or AS degree.

## English as a Second Language A026— Grammar, Reading and Writing 2 — 6 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language A015. Also, qualifying score on the OCC English as a Second Language placement test for English as a Second Language A021 or higher or completion of English as a Second Language 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. Not applicable to AA or AS degree.

## English as a Second Language A031— Listening and Speaking Skills 2 — 3 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language A021.

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. Not applicable to AA or AS degree.

## English as a Second Language A035— Grammar, Reading and Writing 3 — 7 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language A025. Also, qualifying score on the OCC English as a Second Language placement test for English as a Second Language A031 or higher or completion of English as a Second Language A021.

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. Not applicable to AA or AS degree.

## English as a Second Language A051— Listening and Speaking Skills 3 — 3 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language A031.

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. Not applicable to AA or AS degree.

## English as a Second Language A053—Communication Skills for International Students — 3 units

**Prerequisite:** English as a Second Language placement test administered through the OCC Assessment Center, or recommendation of English as a Second Language A031 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. Not applicable to AA or AS degree.

## English as a Second Language A055— Grammar, Reading and Writing 4 — 6 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language A035. Also, qualifying score on the OCC English as a Second Language placement test for English as a Second Language A051 or completion of English as a Second Language A031.

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. Not applicable to AA or AS degree.

## English as a Second Language A060— Composition and Reading 1 — 3 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language A055. Also, qualifying score on the OCC English as a Second Language placement test for English as a Second Language A051 or completion of English as a Second Language A031.

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 English as a Second Language 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. Not applicable to AA or AS degree

## English as a Second Language A065—Advanced Sentence Analysis and Construction — 3 units

**Prerequisite:** Qualifying score on the OCC English as a Second Language placement test or completion of English as a Second Language A055. Also, qualifying score on the OCC English as a Second Language placement test for English as a Second Language A051 or completion of English as a Second Language A031

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. . Not applicable to AA or AS degree.

## English as a Second Language A090— Intensive Grammar 1 — 1.5 units

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 units

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 A099— Composition and Reading 2 — 3 units

**Prerequisite:** English as a Second Language A060 or A065. Also, qualifying score on the OCC English as a Second Language placement test for English as a Second Language A051 or completion of English as a Second Language A031.

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. Not applicable to AA or AS degree.

## ETHNIC STUDIES

### Ethnic Studies A100—Contemporary Ethnic America — 3 units

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 units

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 units

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 units

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 units

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 units**

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 units**

**Prerequisite:** Fashion A100 or A180.

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 units**

**Prerequisite:** Fashion A100 or A180.

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 units**

**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 units**

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 units**

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 units**

**Prerequisite:** Fashion A110 or concurrent enrollment.

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 units**

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 units**

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.**

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## **Fashion A130—Tailoring — 1.5 units**

**Prerequisite:** Fashion A101 or A180.

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 units**

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 units**

**Prerequisite or concurrent enrollment:** Fashion A100 or A180.

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 units**

**Prerequisite:** Fashion A100 or A180.

Interpretation of clothing design through the use of flat pattern techniques. Basic principles involved in designing and manipulating patterns. Two hours lecture, three hours laboratory. **Transfer Credit: CSU.**

## **Fashion A155—Pattern Tech — 2.5 units**

**Prerequisite:** Fashion A100, A150, and A180.

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 units**

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 units**

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 units**

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 units**

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 units**

**Prerequisite:** At least two fashion CORE courses must be taken or the equivalent.

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 units**

**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 units**

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 units**

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 units**

**Prerequisite:** Fashion A101 or A180.

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 units**

**Prerequisite:** Fashion A101 or A180.

Corequisite: Fashion A110.

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 1 — 3 units**

Presentation or promotion of fashion and garment design through elementary trade sketching use of the 'croqui', and current computer design software, as used in the fashion industry. May be taken for grade option only. Two hours lecture, four hours laboratory. This course may be taken two times. **Transfer Credit: CSU.**

## **Fashion A256—Fashion Illustrating Techniques 2 — 3 units**

**Prerequisite:** Fashion A255.

Use current computer software to design and refine fashion garment proportions, textile textures and shapes, and garment construction elements to gain a clear understanding of design standards in the fashion industry. This course may be taken twice. Two hours lecture, four hours non-lecture. This course may be taken two times. **Transfer Credit: CSU.**

## **Fashion A260—Fashion Design/Production Concepts and Applications — 3 units**

**Prerequisite:** Fashion A100 or A180 and A150.

**Advisory:** Fashion A110 and A255.

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 units**

**Advisory:** Fashion A150.

An introductory course on the operation of the current computer-assisted pattern-making software package, including the 3D format. 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 & Appreciation of Cinema — 3 units**

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.**

### **Film/Video A102—The Business of Film & Television — 2 units**

An introduction to the business aspects of the film and television industry which will provide students with a comprehensive, authoritative, and practical look at every aspect of the film and television industry, including the related businesses of program distribution, programming, marketing, and production for film and television. This class will also address career strategies for advancement within the film and television industry. Two hours lecture. **Transfer Credit: CSU.**

### **Film/Video A104—The Great Directors of Cinema — 3 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

**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—Story Development & Production — 3 units**

**Prerequisite:** Film/Video A110.

There will be extensive development of fictional storytelling structure and pre-production materials. Production techniques including writing, producing, directing, camera operation, sound and editing will be emphasized. Production of a short music video, animation or drama. Three hours lecture, one hour laboratory. **Transfer Credit: CSU; UC.**

### **Film/Video A255—Television Production 2 — 3 units**

**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 two times. Two hours lecture, four hours laboratory. **Transfer Credit: CSU.**

### **Film/Video A260—Special Projects — 2 units**

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 units**

**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 two times. One hour lecture, three hours laboratory. **Transfer Credit: CSU.**

### **Film/Video A262—Cinematography — 3 units**

This course is an exploration of cinematography through a synergetic approach. The intent is to assist students in developing their moviemaking abilities generated by the current practice of the medium through advanced lighting techniques. Students will do individual and group projects using various camera, lighting and production equipment. Three hours. **Transfer Credit: CSU, UC.**

### **Film/Video A264—Digital Film and Video Editing 2 — 3 units**

**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 units**

**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 two times. Three hours lecture, five hours non-lecture. **Transfer Credit: CSU.**

### **Film/Video A270—Digital Cinema — 4 units**

**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 unit**

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 unit

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 unit

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 units

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 units

Practical approach to nutrition with laboratory activities: 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. One and-a-half hour lecture, one and-a-half hour lab. **Transfer Credit: CSU.**

## Food and Nutrition A144—Life Cycle Nutrition: Mother and Infant — 1 unit

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 unit

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 unit

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 units

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.**

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.

## Food and Nutrition A171—Applied Nutrition — 2 units

**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 unit

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 units

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 units

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 units

**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 units

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 and Nutrition A286—Directed Practice for Culinary®/Food Science — 2 units

**Prerequisite:** Food Service Management A160 and Food and Nutrition A195.

On the job training at approved institutional or commercial facilities working with a food scientist or culinologist in the development of new products or quality assurance. Students will be required to follow dress standards and company policies of conduct, set by the facility in which they are working. May be taken two times. Ten hours paid, eight hours unpaid, 6 hour seminar. **Transfer Credit: CSU.**

## FOOD SERVICE MANAGEMENT

### Food Service Management A100—Introduction to the Hospitality Industry — 3 units

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 units

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 A150—Principles of Quantity Food Preparation — 4 units

**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.**

## **Food Service Management A151—Food Production Management — 2 units**

**Prerequisite:** Culinary Arts A150 or any two of the following: Culinary Arts A120, A122, A124, A149, and Food Service Management A160.

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 units**

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 units**

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 units**

**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 units**

**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 units**

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.**

## **Food Service Management A250—Menu Planning and Purchasing — 3 units**

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 units**

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 A275—Bar Management — 2 units**

How to manage a successful beverage operation. Entry level skills of preparing and serving beer, wine and spirits. Manage the bar for profitability to include cost controls, staffing, marketing, and regulations that affect operations. Two and one-half hours lecture, one-half hour lab. **Transfer Credit: CSU.**

## **Food Service Management A284—Catering — 3 units**

**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 arranged. **Transfer Credit: CSU.**

## **Food Service Management A285—Restaurant Management — 3 units**

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 units**

**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 1 — 5 units**

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 2 — 5 units**

**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 units**

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 units**

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 1 — 4 units**

**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 2 — 4 units**

**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 units**

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 units**

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 units**

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 Communication Studies A165. Students completing Gender Studies A165 may not receive credit for Communication Studies A165. Three hours. **Transfer Credit: CSU.**

## Gender Studies A187—Women in History — 3 units

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 units

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 units

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 A130—Introduction to Weather & Climate — 3 units

**Advisory:** Geography A180

Introduction to the earth's atmosphere and processes. Topics include: atmospheric structure and composition, solar radiation, energy budget, temperature, seasonal changes, atmospheric moisture, clouds and fog, precipitation, circulation systems, air masses and fronts, weather forecasting, climate and climate change. Three hours lecture. **Transfer Credit: CSU, UC.**

### Geography A150—California Geography — 3 units

A survey of California's physical and cultural environment and patterns. Topics will include physiography, vegetation, climate, resources, population, migration, ethnic diversity, economics, urbanization and current issues related to geographic factors. Field trips may be required. Three hours lecture. **Transfer Credit: CSU, UC.**

### Geography A180—Physical Geography — 3 units

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 units

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 unit

**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 Geography — 3 units

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 lecture. **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.

### Geography A190—Introduction to Geographic Information Systems — 2 units

**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.**

### Geography A198—Regional Field Studies — 1-4 units

Field studies of the geography of selected regions. Physical and cultural processes, characteristics and landscapes will be observed and analyzed. Specific content will vary by geographic region. May be taken four times with different content. **Transfer Credit: CSU.**

## GEOLOGY

### Geology A101—Age of the Dinosaurs — 4 units

The course focuses on the origin, evolution and extinction of dinosaurs with emphasis on paleobiology and paleoecology. Covers fundamentals of dinosaur anatomy and behavior, hot/cold-blooded debate, relationships to birds, diversity and exploits of dinosaur hunters. Extended field trip required. Intended for science and non-science majors. Three hours lecture, three hours lab. **Transfer Credit: CSU; UC.**

### Geology A105—General Geology — 3 units

*Formerly Geology A100*

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 A105H—Honors General Geology — 3 units

*Formerly Geology A100H*

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 A105L—General Geology Laboratory — 1 unit

*Formerly Geology A100L*

**Prerequisite:** Geology A105 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 A105M—Honors General Geology Lab — 1 unit

*Formerly Geology A100M*

**Prerequisite:** Geology A105 or A105H 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 units

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 A110—Physical Geology — 4 units

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 A115—California Geology — 3 units

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 units

**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 A185—Evolution of the Earth — 3 units

**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 unit

**Prerequisite:** Geology A185 or concurrent enrollment.

Laboratory and field exercises to learn how the geologic history of the earth may be determined. Extended weekend field trip required. May be taken for grades or on a pass-no pass basis. Three hours laboratory. **Transfer Credit: CSU; UC.**

**GERMAN**

**German A180—Elementary German 1 — 5 units**

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 2 — 5 units**

**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 1 — 4 units**

**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 2 — 4 units**

**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—Personal Health — 3 units**

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.**

**Health Education A111—Cardiopulmonary Resuscitation — .5 units**

Techniques and theory of cardiopulmonary resuscitation. Completion qualifies student for American Red Cross Professional Rescuer CPR/AED 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 units**

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 units**

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 units**

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 A136—Nutrition, Fitness and Performance — 3 units**

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 A199—Current Health Issues — .5-3 units**

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.**

**Health Education A220—Concepts in Public Health — 3 units**

Principles of population based health and the determinants of health and disease will be explored from an evidence based perspective. Topics will include history, resources, health services administration, environmental health, health promotion, legal and ethical issues. Three hours. **Transfer Credit: CSU.**

**Health Education A270—Fitness and Health — 3 units**

*Formerly Health Education A134*

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 Kinesiology A134. Students completing Health Education A134 may not receive credit for Kinesiology A134. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

**Health Education A271—Drugs and Sports — 2 units**

*Formerly Health Education A138*

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 Kinesiology A138. Students completing Health Education A138 may not receive credit for Kinesiology A138. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

**HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION**

**Heating, Ventilation, Air Conditioning & Refrigeration A100—Air Conditioning & Refrigeration Principles — 3 units**

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, Ventilation, Air Conditioning & Refrigeration A101—Basic Electrical for HVACR — 3 units**

**Advisory:** Heating, Ventilation, Air Conditioning & Refrigeration 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, Ventilation, Air Conditioning & Refrigeration A102—Refrigeration Service — 3 units**

**Prerequisite:** Heating, Ventilation, Air Conditioning & Refrigeration 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, Ventilation, Air Conditioning & Refrigeration A103—Air Conditioning Service — 3 units**

**Prerequisite:** Heating, Ventilation, Air Conditioning & Refrigeration A100 and A101.

**Advisory:** Heating, Ventilation, Air Conditioning & Refrigeration 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.**

**Heating, Ventilation, Air Conditioning & Refrigeration A104—Air Balance — 3 units**

**Prerequisite:** Heating and A/C A100 and A101.

**Advisory:** Heating, Ventilation, Air Conditioning & Refrigeration 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, Ventilation, Air Conditioning & Refrigeration A105—Air Conditioning & Refrigeration Controls — 3 units**

**Prerequisite:** Heating, Ventilation, Air Conditioning & Refrigeration A100 and A101.

Controls used in the Heating, Ventilation, Air Conditioning & Refrigeration that include temperature, pressure, overload and safety controls. This course may be taken two times. Three hours. **Transfer Credit: CSU.**

## Heating, Ventilation, Air Conditioning & Refrigeration A106—Non-Residential Applications for HVAC — 3 units

**Prerequisite:** Heating, Ventilation, Air Conditioning & Refrigeration 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, Ventilation, Air Conditioning & Refrigeration A110—Pneumatic Controls I — 3 units

**Prerequisite:** Heating, Ventilation, Air Conditioning & Refrigeration 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, Ventilation, Air Conditioning & Refrigeration A140—Building Automation — 3 units

**Prerequisite:** Heating, Ventilation, Air Conditioning & Refrigeration 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 units

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 units

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 A105—Family History and Genealogy — 3 units

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 A140—The California Experience — 3 units

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.**

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.

### History A145—History of Mexico — 3 units

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 units

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 A161—World History 1 — 3 units

*Formerly History A102*

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 A161H—World History 1 Honors — 3 units

*Formerly History A102H*

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 A162—World History 2 — 3 units

*Formerly History A103*

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 A162H—World History 2 Honors — 3 units

*Formerly History A103H*

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 A170—History of the United States to 1876 — 3 units

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 units

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 units

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 units

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 units

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 units

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—Western Civilization 1 — 3 units

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—Western Civilization Honors 1 — 3 units

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—Western Civilization 2 — 3 units

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—Western Civilization 2 Honors — 3 units

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 units

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 A195—History of England and Greater Britain — 3 units

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 units

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 units

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.**

## HOSPITALITY, TRAVEL & TOURISM

### Hospitality, Travel & Tourism A100—Introduction to the Hospitality Industry — 3 units

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.**

### Hospitality, Travel & Tourism A105—Event Staffing & Coordination — 3 units

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. Two hours lecture, 3.75 hours arranged. This course may be taken three times. **Transfer Credit: CSU.**

### Hospitality, Travel & Tourism A114—Communication Connection — 1.5 units

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 units

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 units

An internship opportunity for students enrolled in Airline Travel, Hotel, Meeting Event, Spa Management, or Travel and Tourism programs at Orange Coast College. This course is recommended after one semester of successful academic preparation in an area of specialization. The instructor has the authority to limit access based on academic preparation. 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 units

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. **Transfer Credit: CSU.**

### Hospitality, Travel & Tourism A120—Housekeeping and Property Operations — 3 units

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. **Transfer Credit: CSU.**

### Hospitality, Travel & Tourism A125—Destination the Americas — 3 units

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. Three hours. This course may also be offered online.

### Hospitality, Travel & Tourism A127—Destination Europe — 3 units

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 Africa/Pacific — 3 units

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. Three hours. **Transfer Credit: CSU.**

### Hospitality, Travel & Tourism A129—Computer Reservation Systems — APOLLO — 2.5 units

**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 units

**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 units

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 units

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 units

Travel industry computer systems using various industry applications such as: reservations, operations management, ticketing, training, home based communication and crew scheduling. Three hours lecture. **Transfer Credit: CSU.**

### Hospitality, Travel & Tourism A135—Homeland Security — 2 units

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—Revenue Management — 2 units

**Advisory:** Hotel Management A110 or Hospitality, Travel & Tourism A150 or concurrent enrollment.

This course provides a model for understanding the revenue management process and reveals four basic building blocks to revenue management success. 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. Three hours lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A150— Taking Off in Travel — 1.5 units**

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 lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A152— Corporate Travel — 1.5 units**

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. This course may also be offered online. One and one-half hours. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A153—Selling Vacation Packages and Tours — 1.5 units**

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. This course may also be offered online. One and one-half hours lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A154— Cruise Industry — 1.5 units**

**Advisory:** Hospitality, Travel & Tourism A150.

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. This course may also be offered online. One hour lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A155—Tour Escorting and Management — 1.5 units**

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. This course may also be offered online. One and one-half hours lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A160—Introduction to Spa and Hospitality Operations — 1.5 units**

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. This course may also be offered online. One and one-half hours lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A165—Spa Industry Services and Treatments — 1.5 units**

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. This course may also be offered online. One and one-half hours lecture. **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.

## **Hospitality, Travel & Tourism A170—Spa Industry Finance — 1.5 units**

This course provides spa supervisors and operation managers techniques toward successful financial management. This course may also be offered online. One and one-half hours. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A175—Spa Marketing and Retail Management — 1.5 units**

In this course the student will learn to develop effective marketing and retailing to increase sales, and promote branding opportunities for a spa. This course may also be offered online. One and one-half hours lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A180— Enhancing Guest Service — 3 units**

**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. This course may also be offered online. Three hours lecture. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A199—Current Issues in Hospitality, Travel & Tourism — .5-1.5 units**

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 units**

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. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A265—Principles of Event and Meeting Management — 1.5 units**

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 units**

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 — 1.5 units**

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 unit**

**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) makes these programs popular. This course may also be offered online. One hour. **Transfer Credit: CSU.**

## **Hospitality, Travel & Tourism A269— Destination Management — 1 unit**

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 — 1.5 units**

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 unit**

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 unit**

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 unit**

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 unit**

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 unit

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 unit

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 unit

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 — 1.5 units

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 units

**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 each 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, 7.5 hours unpaid, or ten hours paid arranged. **Transfer Credit: CSU.**

## Hospitality, Travel & Tourism A281—Leadership Development — 2 units

**Prerequisite:** 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 units

**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 units

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 units

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 units

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. **Transfer Credit: CSU.**

## Hospitality, Travel & Tourism A290—California Labor Law — 3 units

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 units

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. This course may also be offered online. **Transfer Credit: CSU.**

### Hotel Management A130—Guest Services — 1.5 units

**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. Three hours lecture. **Transfer Credit: CSU.**

### Hotel Management A260—Supervision and Training Techniques — 3 units

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 Growth & Development — 3 units

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 units

Growth and development of the child from 5 to 12 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 units

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 units

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 units

**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 units

**Prerequisite:** Human Development A180 or A182 or concurrent enrollment.

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 units

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 A101H—Honors Themes in Humanities — 3 units

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 units

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 units

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 — 3 units

**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.** Two hours lecture, three hours lab. **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 units

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 A130—CAD 2D for Interior Design — 2 units

This course introduces Computer Aided Drafting (CAD) as used to produce 2-dimensional design drawings. PCs with Autodesk Architecture or other Industry standard software will be used and instruction will focus on computer drawing a simple project to include the following drawing types: floor plan, site plan, elevations, and enlarged section/details. Students should have basic knowledge of computer operation and file management. This course may be taken three times. Two hours lecture, two hours lab. **Transfer Credit: CSU.**

### Interior Design A150—Interior Materials and Products — 3 units

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 units

**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 units

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 units

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 units

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 units

**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 units

**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 units

**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. Two hours lecture, three hours lab. **Transfer Credit: CSU.**

### Interior Design A220—Interior Design Construction Documents — 3 units

**Corequisite:** Architectural Design A105 or 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 units

**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 units

**Corequisite:** Interior Design A210 and A215.

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 — 3 units

**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. Three hours lecture. **Transfer Credit: CSU.**

## Interior Design A260—Digital Visualization Methods — 3 units

**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. Students should have basic knowledge of computer operation CAD and file management. This course may be taken four times. Two hours lecture, three hours non-lecture. **Transfer Credit: CSU.**

## Interior Design A265—Studio Project Specialization — 3 units

**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. May be taken three times. Two hours lecture, three hours studio. **Transfer Credit: CSU.**

## Interior Design A275—Interior Design Studio 4 — 3 units

**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.**

## Interior Design A280—Interior Design Studio-Bath Design — 2 units

**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 items, fixtures, and equipment unique to the bath space. Design solutions for residential bathrooms will be developed in the studio. One hour lecture, three hours studio. **Transfer Credit: CSU.**

## Interior Design A285—Interior Design Studio-Kitchen Design — 2 units

**Prerequisite:** Interior Design A210 and A215.

**Advisory:** Interior Design A260.

Analysis and application of the design process to the space planning, materials and finish choices, codes application, and selection of specialized items, fixtures, and equipment unique to the kitchen space. Design solutions for residential kitchen will be developed in the studio. One hour lecture, three hours studio. **Transfer Credit: CSU.**

## INTERNSHIP ACADEMY

### Internship A392—Internship Academy-Level 2 — 1-4 units

**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 units

**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 1 — 5 units

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 2 — 5 units

**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 units

**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 1 — 4 units

**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 2 — 4 units

**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 1 — 5 units

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 2 — 5 units

**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 1 — 5 units

**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 2 — 5 units

**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 units

**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 unit

**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 units

**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 units

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 units

**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 units

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 units

**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 unit

**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.**

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## KINESIOLOGY

*Formerly Physical Education*

*Also see Athletics*

## FITNESS/CONDITIONING

### Kinesiology A105—Cardiovascular Fitness — 5-2.5 units

*Formerly Physical Education A110*

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.**

### Kinesiology A106—Weight Training — 5-1.5 units

*Formerly Physical Education A111*

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.**

### Kinesiology A107—Fitness Programs I — 5-3 units

*Formerly Physical Education A107*

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.**

### Kinesiology A108—Strength and Conditioning — 5-3 units

*Formerly Physical Education A108*

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.**

## Kinesiology A110—Aerobic Exercise — 5-1.5 units

*Formerly Physical Education A114*

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.**

## Kinesiology A111—Step Aerobics — 5-1.5 units

*Formerly Physical Education A112*

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.**

## Kinesiology A112—Body Sculpting — 5-1.5 units

*Formerly Physical Education A125*

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.**

## Kinesiology A113—Stretch and Flex — 5-1.5 units

*Formerly Physical Education A102*

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.**

## Kinesiology A115—Cross Training — 5-1.5 units

*Formerly Physical Education A115*

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.**

## Kinesiology A116—Triathlon Techniques — 2.5 units

*Formerly Physical Education A106*

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.**

## Kinesiology A207—Fitness Programs II — .5-3 units

*Formerly Physical Education A187*

This is an advanced course of Kinesiology A107. Allows a student to use the OCC Cardio Labs and attend other day-time activity classes with instructor permission. Students are required to attend a general fitness evaluation at beginning of the semester. Students are required to attend a one-hour orientation. Offered on a pass-no basis only. This course may be taken four times. .25-1.50 hours lecture, .75-4.50 non-lecture. **Transfer Credit: CSU.**

## Kinesiology A208—Strength and Conditioning II — .5-3 units

*Formerly Physical Education A128*

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 basis only. This course may be taken four times. .25-1.50 hours lecture, .75-4.50 hours non-lecture. **Transfer Credit: CSU.**

## EASTERN MOVEMENT FORMS

### Kinesiology A126—Aikido — .5-1.5 units

*Formerly Physical Education A120*

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.**

### Kinesiology A127—Karate — .5-1.5 units

*Formerly Physical Education A122*

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.**

### Kinesiology A128—Hatha Yoga — Level I — .5-1.5 units

*Formerly Physical Education A104*

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.**

### Kinesiology A129—T'ai Chi Chih — .5-2 units

*Formerly Physical Education A105*

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-1 hour lecture, .75-three hours non-lecture. **Transfer Credit: CSU; UC.**

## Kinesiology A228—Hatha Yoga — Level II — .5-1.5 units

*Formerly Physical Education A204*

**Advisory:** Kinesiology A128 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; UC.**

## AQUATIC SKILLS

### Kinesiology A130—Aqua Fitness — .5-1.5 units

*Formerly Physical Education A140*

**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.**

### Kinesiology A131—Swimming for Fitness — .5-2.5 units

*Formerly Physical Education A146*

**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.**

### Kinesiology A132—Swimming — .5-1.5 units

*Formerly Physical Education A143*

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.**

### Kinesiology A136—Introduction to Sailing 1 unit

*Formerly Physical Education A147*

**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 A136. Students completing Kinesiology A136 may not receive credit for Marine Activities A136. 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.**

## Kinesiology A137—Introduction to Keel Boats — 1 unit

*Formerly Physical Education A148*

**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 A137. Students completing Kinesiology A137 may not receive credit for Marine Activities A137. 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.**

## Kinesiology A138—Introduction to Ocean Sailing — 1 unit

*Formerly Physical Education A149*

**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 A138. Students completing Kinesiology A138 may not receive credit for Marine Activities A138. 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.**

## Kinesiology A139—Kayaking — .5-1.5 units

*Formerly Physical Education A160*

**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 A139. Students completing Kinesiology A139 may not receive credit for Marine Activities A139. 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.**

## Kinesiology A140—Outrigger Canoeing — .5-1.5 units

*Formerly Physical Education A159*

**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. There will be a fee for use of equipment and use of the off-campus facility. Same as Marine Activities A140. Students completing Kinesiology A140 may not receive credit for Marine Activities A140. 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.**

## **Kinesiology A141—Surfing and Ocean Safety — 2 units**

*Formerly Physical Education A161*

**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, currents, surfing etiquette, and ocean safety 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.**

## **RACQUET**

### **Kinesiology A145—Badminton -.5-1.0 units**

*Formerly Physical Education A150*

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.**

### **Kinesiology A146—Tennis — .5-1.5 units**

*Formerly Physical Education A155*

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.**

### **Kinesiology A147—Table Tennis — .5-1 units**

*Formerly Physical Education A154*

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.**

## **INDIVIDUAL & TEAM**

### **Kinesiology A150—Basketball — .5-1.5 units**

*Formerly Physical Education A173*

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.**

### **Kinesiology A151—Futsal/ Indoor Soccer -.5-2 units**

*Formerly Physical Education A156*

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, /,75-3.0 hours activity. **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.

### **Kinesiology A152—Soccer -.5-2 units**

*Formerly Physical Education A177*

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.**

### **Kinesiology A153—Golf — .5-1.5 units**

*Formerly Physical Education A179*

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.**

### **Kinesiology A154—Volleyball — .5-1.5 units**

*Formerly Physical Education A178*

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.**

### **Kinesiology A155—Bowling — .5-1.5 units**

*Formerly Physical Education A174*

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.**

### **Kinesiology A156—Rock Climbing -.5-2 units**

*Formerly Physical Education A167*

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.**

## **ADAPTED**

### **Kinesiology A170—Adapted Strength Training — .5-1.5 units**

*Formerly Physical Education A191*

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.**

### **Kinesiology A171—Adapted Individual Sports — .5-1.5 units**

*Formerly Physical Education A192*

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.**

### **Kinesiology A172—Adapted Aquatics — .5-1.5 units**

*Formerly Physical Education A194*

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.**

### **Kinesiology A173—Adapted Strength and Balance — .5-1.5 units**

*Formerly Physical Education A185*

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; UC.**

### **Kinesiology A174—Adapted Cardiovascular Fitness — .5-1.5 units**

*Formerly Physical Education A196*

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.**

### **Kinesiology A175—Adapted Aerobic Exercise — .5-1.5 units**

*Formerly Physical Education A197*

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.**

## **Kinesiology A176—Adapted Stretching — .5-1.5 units**

*Formerly Physical Education A198*

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.**

## **KINESIOLOGY STUDIES**

**Professional Kinesiology courses are intended for Kinesiology majors. Students should consult the Transfer Information section or their counselor for specific requirements.**

## **Kinesiology A199—Current Issues in Physical Education — .5-3 units**

*Formerly Physical Education A199*

The study and discussion of current topics and issues in the field of Kinesiology, exercise science and fitness training. Units vary according to topic selected, semester selected, and number of meetings scheduled. Of interest to students majoring in Kinesiology, 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.**

## **Kinesiology A201—Introduction to Adapted Kinesiology — 2.5 units**

*Formerly Physical Education A268*

Introduction to adapted Kinesiology designed for majors in fitness specialist, Kinesiology, 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; UC.**

## **Kinesiology A202—Introduction to Kinesiology — 3 units**

*Formerly Physical Education A202*

Introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of the sub disciplines in Kinesiology will be discussed. Exploration of career opportunities in areas related to sport, movement, exercise and fitness, including teaching, coaching, and fitness professions. **Transfer Credit: CSU, UC.**

## **Kinesiology A270—Fitness and Health — 3 units**

*Formerly Physical Education A134*

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 A270. Students completing Kinesiology A270 may not receive credit for Health Education A270. May be taken for grades or on a pass-no pass basis. Three hours. **Transfer Credit: CSU; UC.**

## **Kinesiology A271—Drugs and Sports — 3 units**

*Formerly Physical Education A138*

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, nutrition and positive alternatives. Same as Health Education A271. Students completing Kinesiology A271 may not receive credit for Health Education A271. May be taken for grades or on a pass-no pass basis. Four hours. **Transfer Credit: CSU.**

## **Kinesiology A272—Movement Analysis 3 units**

*Formerly Physical Education A274*

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.**

## **Kinesiology A273—Sports Medicine — 3 units**

*Formerly Physical Education A281*

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.**

## **Kinesiology A274—Athletic Taping and Modalities — 3 units**

*Formerly Physical Education A285*

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.**

## **Kinesiology A275—Sports Medicine Practicum — 2-4 units**

*Formerly Physical Education A287*

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.**

## **Kinesiology A279—Sports Management — 3 units**

*Formerly Physical Education A278*

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.**

## **Kinesiology A280—Strength and Conditioning Theory -3 units**

*Formerly Physical Education A289*

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.**

## **Kinesiology A281—Fitness and Exercise Testing – 3 units**

*Formerly Physical Education A284*

Theory and techniques of physical fitness evaluation, exercise testing and exercise prescription. Three hours. **Transfer Credit: CSU.**

## **Kinesiology A282—Exercise Physiology — 3 units**

*Formerly Physical Education A296*

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; UC.**

## **Kinesiology A298—Fitness Specialist Internship — 2-3 units**

*Formerly Physical Education A298*

**Prerequisite:** At least two of the following courses must be completed or the equivalent: Kinesiology A270, A272, A279, A280, A281, or A282.

A supervised internship related to classroom-based learning at an appropriate Fitness Specialist work site. This course may be taken four times. One hour lecture; 60-120 hours arranged. **Transfer Credit: CSU.**

## **LEADERSHIP STUDIES**

### **Leadership Studies A180—Personal Leadership — 3 units**

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 units**

Learn to provide leadership to business, community, and governance organizations. Three hours. **Transfer Credit: CSU.**

## **LEARNING SKILLS**

### **Learning Skills A001—Basic Skills Remediation — 1-3 units**

**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 — 2 units**

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. Grade Option only. **Transfer Credit: CSU; UC.**

## **MANUFACTURING TECHNOLOGY**

*(Formerly Machine Technology)*

## Machine Technology A100—Introduction to Machine Shop — 3 units

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 units

**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 units

**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 — 3 units

**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—Blueprint Reading for Manufacturing — 3 units

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 units

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 units

**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 units

**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.**

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.

## Machine Technology A130—Introduction to Computerized Numerical Control and Manual Programming — 3 units

**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. Three hours. **Transfer Credit: CSU.**

## Machine Technology A133—CNC Programming-Mastercam 1 — 3 units

**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 units

**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 units

**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 units

**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 units

**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 units

**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 units

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 units

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 A199—Current Topics in Machine Technology — 1-4 units

Current issues in the field of Manufacturing Technology, rotating through a variety of topics, such as inspection, quality control, lean manufacturing, rapid prototype, materials, and other topics related to manufacturing. This course may be taken four times. One half hour lecture to four hour lecture, three hour non-lecture. **Transfer Credit: CSU.**

## Machine Technology A200—Tooling — 2.5 units

**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 units

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 units

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 units

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 A136—Introduction to Sailing — 1 unit

*Formerly Marine Activities A147*

**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 Kinesiology A136. Students completing Marine Activities A136 may not receive credit for Kinesiology A136. 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.**

### Marine Activities A137—Introduction to Keel Boats — 1 unit

*Formerly Marine Activities A148*

**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 Kinesiology A137. Students completing Marine Activities A137 may not receive credit for Kinesiology A137. 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 A138—Introduction to Ocean Sailing — 1 unit

*Formerly Marine Activities A149*

**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 Kinesiology A138. Students completing Marine Activities A138 may not receive credit for Kinesiology A138. 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 A139—Kayaking — .5-1.5 units

*Formerly Marine Activities A160*

**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 Kinesiology A139. Students completing Marine Activities A139 may not receive credit for Kinesiology A139. 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 A140—Outrigger Canoeing — .5-1.5 units

*Formerly Marine Activities A159*

**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 Kinesiology A140. Students completing Marine Activities A140 may not receive credit for Kinesiology A140. 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 A150—Coastal Navigation — 3 units

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 units

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 units

**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. Prerequisites will be validated in class during the first week of the course. A facility fee will be charged. This course may be taken two times. **Transfer Credit: CSU.**

### Marine Activities A153—Marine Basic Safety Training — 4 units

**Prerequisite:** Marine Activities A151 or concurrent enrollment.

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 for 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 units

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 units

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 units

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.**

### Marine Activities A157—Radar Observer — 2 units

**Prerequisite:** Professional Mariner Level 1 Certificate of Achievement or higher.

Students will learn fundamentals of marine Radar, its uses, limitations, and how to interpret data from a radar system. Primary focuses will be on Radar Navigation and Collision avoidance. Students with satisfactory level of completion will be qualified for a Certificate of Completion for U.S. Coast Guard Radar Observer license endorsement, establishing competency in the operation and utilization of marine radar equipment. This endorsement may be added to any U.S. Coast Guard Deck Officer License. This course may be taken two times. **Transfer Credit: CSU.**

**MARINE SCIENCE**

**Marine Science A100—Oceanography — 3 units**

**Advisory:** English A098 or English as a Second Language A099.

An orientation to the marine sciences including considerations of physical and chemical properties of the sea, the sea-air interface, the biology of the sea, the geology of the ocean basins, the sea as a physical, chemical, biological and recreational resource, and the obligation of mankind to control further contamination of the environment. This course may also be offered online. Three hours. **Transfer Credit: CSU; UC.**

**Marine Science A100H—Honors Oceanography — 3 units**

**Advisory:** English A098 or English as a Second Language A099.

An orientation to the marine sciences, including considerations of physical and chemical properties of the sea, the sea-air interface, the biology of the sea, the geology of the ocean basins, the sea as a physical, chemical, biological and recreational resource, and the obligations of mankind to control further contamination of the environment. Three hours. **Transfer Credit: CSU; UC.**

**Marine Science A100L—Oceanography Laboratory — 1 unit**

**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 English as a Second Language A099.

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 unit**

**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 English as a Second Language A099.

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.**

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.

**Marine Science A120—Marine Aquarium Science — 1 unit**

**Prerequisite:** Marine Science A100 or concurrent enrollment.

**Advisory:** English A098 or English as a Second Language A099.

Introduces students to the science of Aquariumology 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.**

**Marine Science A180—Marine Biology — 3 units**

**Prerequisite:** Marine Science A100.

**Advisory:** English A098 or English as a Second Language A099.

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.**

**Marine Science A180L—Marine Biology Lab — 1 unit**

**Prerequisite:** Marine Science A180, or concurrent enrollment.

**Advisory:** English A098 or English as a Second Language A099.

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 units**

**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 unit**

**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 units**

**Prerequisite:** Marine Science A100.

**Advisory:** Marine Science A180 and A185 and English A098 or English as a Second Language A099.

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units

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 units

**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.**

## 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 units

**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 units

**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 units

**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. Not applicable to AA or AS degree.

### \*Mathematics A020—Plane Geometry — 3 units

**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. Not applicable to AA or AS degree.

### \*Mathematics A030—Intermediate Algebra — 4 units

**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 units

**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 units

**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—Statistics for Elementary Teachers — 3 units

**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.**

### Mathematics A104—Mathematics for Elementary Teachers — 3 units

**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—Geometry for Elementary Teachers — 3 units

**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 units

**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 A115—College Algebra — 4 units

*Formerly Mathematics A130*

**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 A140 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 A140—Business Calculus — 4 units

*Formerly Mathematics A157*

**Prerequisite:** Math A115 or A155 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 A155—Finite Mathematics with Applications — 4 units

*Formerly Mathematics A154*

**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 A160—Introduction to Statistics — 3 units

**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 units

**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 — 4 units

**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 units

**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. C-ID MATH 210**

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.

## Mathematics A180H—Honors Calculus 1 — 4 units

**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 units

**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 units

**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. C-ID MATH 220**

## Mathematics A185H—Honors Calculus 2 — 4 units

**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 units

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—Introduction to Discrete Mathematics — 5 units

**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 units

**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. C-ID MATH 250**

## Mathematics A260—Probability — 3 units

**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 units

**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 units

**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 units

**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 units

**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  $R^3$  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 units

**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 A150—Medical Assisting Core — 3 units

**Prerequisite:** Allied Health A111, Biology A221.

**Corequisite:** Allied Health A115.

Introduction to Medical Assisting, Student Success, Safety in the Health Care Workplace, Intro to Computers and Electronic Health Records, Medical Office Emergencies, Ethics and Law, Psychology for the Medical Assistant, Basics of Patient Education, Communication/Multiculturalism in Healthcare, and Nutrition Basics for the Medical Assistant. Three hours lecture. **Transfer Credit: CSU.**

### Medical Assisting A175—Administrative Medical Assisting Procedures — 3 units

**Prerequisite:** Allied Health A010 and A111.

Introduction to the role of the administrative medical assistant in health care delivery. Three hours. **Transfer Credit: CSU.**

### Medical Assisting A181—Clinical Medical Assisting1 — 5 units

**Prerequisite:** Allied Health A111, and Biology A221.

Theory and techniques in basic microbiology; performing blood and urine collection; CLIA waived lab test performance; sterilization principals and assisting with minor surgery; medication preparation and administration, including parenteral medications; assisting with general and specialty physical examinations in an outpatient setting. Four hours lecture, three hours lab. **Transfer Credit: CSU.**

### Medical Assisting A205—Administrating Medical Assisting 2 — 5 units

**Prerequisite:** Medical Assisting A175.

Introduction to the skills required to perform medical office bookkeeping, accounting (accounts receivable and payable), payroll, and banking procedures. Insurance coding and claims preparation used in the medical office setting and facility management skills to facilitate the ability to engage in marketing and community service. Five hours lecture. **Transfer Credit: CSU.**

### Medical Assisting A281—Medical Assisting Clinical Experience — 3.5 units

**Prerequisite:** Allied Health A115 and Medical Assisting A180.

**Corequisite:** Medical Assisting A205.

Supervised clinical medical assisting experience in a medical office, clinic, or related outpatient facility. One-third hour lecture, 10.6 hours clinical. **Transfer Credit: CSU.**

### Medical Assisting A289—Clinical Medical Assisting 2 Specialty Procedures — .5 units

**Prerequisite:** Allied Health A111 and Medical Assisting A180.

Basic concepts of preparing patients for special diagnostic tests and techniques in the medical office including pulmonary function, and electrocardiography. One hour lecture, two hours non-lecture. **Transfer Credit: CSU.**

## MUSIC

### Music A100—History and Appreciation of Music — 3 units

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 units

**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 units

Designed to introduce the layman or computer professional to the rapidly evolving use of computers and 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 units

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 A115—Fundamentals of Music — 3 units

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 units

**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 unit

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 units

**Prerequisite:** Successful audition; this prerequisite will be validated in class during the first week of the course.

A select vocal ensemble which performs suitable music from all historical periods. Extensive participation in concerts on and off campus. Occasional brief section rehearsals. Schedule of performances announced at the beginning of each semester. 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 unit

**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 unit

**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 unit

**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 unit

**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 A139—History of Rock Music — 3 units

### Formerly Music A109

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 A140—Beginning Instruments — 2 units

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 unit

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 unit

**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 A143—History of Jazz — 3 units

### Formerly Music A173

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 A144—Popular Vocal Techniques — 1.5 units

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 unit

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.

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.

## Music A146—Voice 2 — 1 unit

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 units

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 units

**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 units

**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 units

**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 units

**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 A180—Theory and Ear Training 1 — 5 units

**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 units

**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 unit

**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 unit

**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 unit

**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 units

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 units**

**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 units**

**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 units**

**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 unit**

This course is the third and fourth semester's 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 units**

**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.**

**Music A249—Classical Guitar 4 — 2 units**

**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 units**

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 units**

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 units**

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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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.**

**NEURODIAGNOSTIC TECHNOLOGY**

**Neurodiagnostic Technology A110—Basic Electroencephalography — 4 units**

**Prerequisite:** Allied Health A010.

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 units**

**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 units**

**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 record keeping, 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 units**

**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 units**

**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 unit**

**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 units**

**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 units**

**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 unit**

**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 unit**

**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 units**

**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 units**

**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 units**

**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.**

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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.

**Neurodiagnostic Technology A289—  
Clinical Experience 4 — 2 units**

**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 units**

**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 units**

**Prerequisite:** Neurodiagnostic Technology A115. Advisory: Computer Information Systems A100.

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 unit**

**Prerequisite:** Neurodiagnostic Technology A289.

Specialized neurodiagnostic clinical internship at an affiliate hospital site. Specialized areas may include intraoperative 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 unit**

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 units**

**Prerequisite:** Food Service Management 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 units**

**Prerequisite:** Food and Nutrition A136, or A170, or Health Education A136.

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. One and one-half hours lecture, eight hours non-lecture. **Transfer Credit: CSU.**

**Nutrition Care A280—Intermediate  
Nutrition Care — 2 units**

**Prerequisite:** Nutrition Care A180 or Food and Nutrition A140 or A170.

**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 units**

**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.**

**Nutrition Care A285—Advanced  
Nutrition Care — 2 units**

**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 units**

**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 units**

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 units**

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 units**

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 units**

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 units**

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 unit**

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 units**

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 units**

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 unit**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

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 units**

**Prerequisite:** Ornamental Horticulture A111, 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 units**

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 units**

**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 units**

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 unit**

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 units**

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 Religions — 3 units**

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 units**

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 units**

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 units**

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 units**

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—Critical Reasoning  
& Writing — 3 units**

**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 units**

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 units**

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.**

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.

**Philosophy A220—Introduction to  
Symbolic Logic — 3 units**

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—Get To Know  
Your Digital Camera — 2 units**

Designed to help the photo enthusiast take better pictures. Emphasis will be placed on practical experience in the use of digital pocket cameras including exposure, lighting, composition, color, and modes of display. This course may be taken four times. One hour lecture, two hours lab. **Transfer Credit: CSU.**

**Photography A101—Photography  
and Society — 3 units**

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 A102—Careers in  
Photography — 1 unit**

Introduction to careers in photography and the Photography program at Orange Coast College. Recommended to anyone interested in pursuing photography as a career goal. **Transfer Credit: CSU.**

**Photography A120—Introduction  
to Photography — 3 units**

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 A120H—Introduction to  
Photography Honors — 3 units**

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 units**  
**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 units**

**Prerequisite:** 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, three hours laboratory, one hour arranged. **Transfer Credit: CSU.**

**Photography A123—Introduction to  
Digital Photography — 3 units**

Discussion and demonstration of digital SLR photography. Instruction in the theory and technique of digital camera use, working with digital files, and making prints. Emphasis on photography as a means of communication, personal expression and critical evaluation of student work in terms of those goals. This course may not be substituted for the Photo A120 requirement in the Photography Certificate of Achievement. Counts towards "100" level optional course requirement for Photography Certificate of Achievement. This course may be taken three times. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU; UC.**

**Photography A125—Imaging with  
Photoshop 1 — 3 units**

**Prerequisite:** Photography A120, or A123, or concurrent enrollment.

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, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

**Photography A130—History and Aesthetics  
of Still Photography — 3 units**

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 units

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 units

**Prerequisite:** 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 units

**Prerequisite:** 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 units

**Prerequisite:** Photography A125 or concurrent enrollment.

Instruction in the basic professional techniques and the use of professional cameras and lighting stressing technical excellence in all phases. Required for photography majors entering the program. Three hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A187—Laboratory Practices — 3 units

**Prerequisite:** 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. Counts towards "100" level optional course requirement for Photography Certificate of Achievement. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A188—Commercial Photography — 5 units

**Prerequisite:** Photography A180.

Overview of the profession of photography. Study and application of the techniques of commercial photography with emphasis on tungsten, strobe and available lighting; small and large products, advertising illustration, special effects image techniques, and basic business practices. Five hours lecture, three hours laboratory. **Transfer Credit: CSU.**

## Photography A196—Photo Bookworks — 3 units

**Prerequisite:** 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. Counts towards "100" level optional course requirement for Photography Certificate of Achievement. May be taken for grades or on a pass-no pass basis. This course may be taken two times. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A200—Documentary Photography — 3 units

**Prerequisite:** Photography A125.

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. Counts towards "200" level elective course requirement for Photography Certificate of Achievement. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A205—Professional Digital Capture — 3 units

**Prerequisite:** Photography A180.

Digital photography for the advanced student. Lectures and demonstrations in current techniques of professional level image capture using small and large format camera systems. This course may be taken two times. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A220—Fashion Photography — 3 units

**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 units

**Prerequisite:** 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, three hours laboratory, one hour arranged. **Transfer Credit: CSU.**

## Photography A230—Photography Since 1945 — 3 units

**Prerequisite:** 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. Counts towards "200" level 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; UC.**

## Photography A241—Business Practices for Photographers — 3 units

**Prerequisite:** Photography A180

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 — 1 unit

**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. Four hours arranged. **Transfer Credit: CSU.**

## Photography A261—Non-Lab Special Projects — 1 unit

**Prerequisite:** Photography A120 or A123.

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. Four hours arranged. **Transfer Credit: CSU.**

## Photography A280—Professional Digital Techniques — 3 units

**Prerequisite:** Photography A125.

A course on professional digital techniques for emerging digital photographers. A strong technical basis will be introduced, but primary orientation will be toward solving practical problems in professional digital photography. Areas covered will include advanced post-production practices, simulating professional working situations, digital zone system and digital methodologies. Class may be taken two times. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A282—Professional Portraiture — 3 units

**Prerequisite:** Photography 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 units

**Prerequisite:** Photography A125.

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, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A287—Alternative Methods — 3 units

**Prerequisite:** Photography A180.

An intermediate to advanced course covering modern photographic techniques involved with alternative photographic process. Technical and creative experimentation will be emphasized. Counts towards "200" level elective course requirement for Photography Certificate of Achievement. This course may be taken four times. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A288—Editorial and Advertising People Photography — 3 units

**Prerequisite:** 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. Counts towards "200" level elective course requirement for Photography Certificate of Achievement. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A289—Architectural Photography — 3 units

**Prerequisite:** Photography A180.

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. Counts towards "200" level elective course requirement for Photography Certificate of Achievement. Two hours lecture, two hours laboratory, two hours arranged. **Transfer Credit: CSU.**

## Photography A290—Advertising Illustration Photography — 3 units

**Prerequisite:** Photography A188.

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.**

## PHYSICS

### Physics A110—Conceptual Physics — 3 units

**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.**

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.

### Physics A111—Introductory Physics Laboratory — 1 unit

**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—Algebra-Based Physics: Mechanics — 4 units

**Prerequisite:** Math A120 or A170 or A180 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, two hours laboratory. **Transfer Credit: CSU; UC. C-ID PHYS 105**

### Physics A125—Algebra-Based Physics: Electricity, Magnetism — 4 units

**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, two hours laboratory. **Transfer Credit: CSU; UC.C-ID PHYS 110**

### Physics A130—University Physics 1 (non-major) — 4 units

**Prerequisite:** Math A180 or A182H or concurrent enrollment.

**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, three hours laboratory. **Transfer Credit: CSU; UC.**

### Physics A135—University Physics 2 (non-major) — 4 units

**Prerequisite:** Physics A130 and Math A180 and A185 or Math A182H or concurrent enrollment.

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, three hours laboratory. **Transfer Credit: CSU; UC.**

### Physics A185—Calculus-Based Physics: Mechanics — 4 units

**Prerequisite:** Math A180 or A182H or concurrent enrollment.

**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.C-ID PHYS 205**

### Physics A280—Calculus-Based Physics: Electricity and Magnetism — 4 units

**Prerequisite:** Physics A185 and Math A180 and A185 or Math A182H.

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.C-ID PHYS 210**

### Physics A285—Calculus-Based Physics: Modern — 4 units

**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.C-ID PHYS 215**

## POLITICAL SCIENCE

### Political Science A101—Survey of Current Issues — 3 units

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—International Relations — 3 units

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—American Government — 3 units**

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—American Government Honors — 3 units**

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—Comparative Politics — 3 units**

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 units**

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 units**

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.**

**Political Science A200—Introduction to Political Science — 3 units**

An introduction to the study of politics. Explores the approaches, theories, methods, and models of the discipline and its subfields to prepare students for a systematic examination of the political world and its many faces around the globe. Three hours lecture. **Transfer Credit: CSU.**

**Political Science A201— Introduction to Political Science Research Methods- 3 units**

**Prerequisite: Political Science A180 or A180H**

Introduction to the techniques used for research in the study of politics, including framing and clarifying research questions, systematic thinking about research design, the relationship between data and theory, using and assessing qualitative and quantitative methods, and learning the toolbox of methods of the discipline. Three hours lecture. **Transfer Credit: CSU.**

**POLYSOMNOGRAPHIC TECHNOLOGY**

**Polysomnography A100— Polysomnography Basics — 1 unit**

**Prerequisite:** Allied Health A130.

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 units**

**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 — .5 units**

**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 units**

**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 unit**

**Corequisite:** Allied Health A115 and Polysomnography A150, A160, and A170. 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 — .5 units**

**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 unit**

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 units**

**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 units**

**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 units**

**Prerequisite:** Polysomnography A175 or concurrent enrollment.

**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 unit**

**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 units**

**Prerequisite:** Polysomnography A265 or concurrent enrollment.

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 units**

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 lecture. **Transfer Credit: CSU; UC.C-ID PSY 110**

**Psychology A100H—Honors Introduction to Psychology — 3 units**

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 lecture. **Transfer Credit: CSU; UC.C-ID PSY 110.**

## **Psychology A105—Psychology of Women — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

## **Psychology A110—Psychology of Adjustment — 3 units**

The study of concepts and principles of personal and social adjustment. Theories (e.g., biological, psychodynamic, behavioral, cognitive, humanistic) of healthy adjustment 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 lecture. **Transfer Credit: CSU; UC.**

## **Psychology A125—Introduction to Counseling Psychology — 4 units**

Designed for students who seek to acquire a basic understanding of counseling psychology and helping roles in the mental health profession. Theoretical and practical approaches to treating emotionally, intellectually, 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 lecture. **Transfer Credit: CSU.**

## **Psychology A130—Life Span Developmental Psychology — 3 units**

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 lecture. **Transfer Credit: CSU, UC.**

## **Psychology A140—Psychology of Adult Development — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

## **Psychology A150—Developmental Psychopathology — 3 units**

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.**

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.

## **Psychology A160—Statistics for the Behavioral Sciences — 3 units**

**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 lecture. **Transfer Credit: CSU; UC.**

## **Psychology A165—Principles of Human Sexuality 1 — 3 units**

Scientific analysis of human sexual behavior from the psychological, sociological, and physiological points of view. Designed to provide the academic and theoretical basis for the entire field of human sexuality. May be taken for grades or on a pass-no pass basis. Three hours lecture. **Transfer Credit: CSU; UC.**

## **Psychology A175—Human Sexuality 2 — 3 units**

**Prerequisite:** Psychology 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. May be taken for grades or on a pass-no pass basis. Three hours lecture. **Transfer Credit: CSU; UC.**

## **Psychology A185—Principles of Psychology — 3 units**

**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 lecture. **Transfer Credit: CSU; UC.**

## **Psychology A199—Current Topics in Psychology — .5-3 units**

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 three times. One half hour to three hours lecture. **Transfer Credit: CSU.**

## **Psychology A200—Positive Psychology — 3 units**

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 lecture. **Transfer Credit: CSU.**

## **Psychology A215—Psychology of Behavior Modification and Assertion — 2 units**

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 lecture. **Transfer Credit: CSU.**

## **Psychology A220—Psychology of Personality — 3 units**

**Prerequisite:** Psychology A100.

A survey of classical and contemporary personality theory, research and application. This course may also be offered online. May be taken for grades or on a pass-no pass basis. Three hours lecture. **Transfer Credit: CSU; UC.**

## **Psychology A235—Psychosocial Rehabilitation and Recovery — 3 units**

**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 units**

**Prerequisite:** Psychology A100, A125, A235, and A255 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.**

## **Psychology A250—Psychobiology — 3 units**

**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 lecture. **Transfer Credit: CSU; UC.**

## **Psychology A255—Abnormal Psychology — 3 units**

*Formerly Psychology A158*

**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 lecture. **Transfer Credit: CSU; UC.**

**Psychology A260—Social Psychology — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

**Psychology A270—Psychology of Learning — 3 units**

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 lecture. **Transfer Credit: CSU; UC.**

**Psychology A280—Introduction to Experimental Methods — 4 units**

**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 units**

**Prerequisite:** Biology A221.

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 units**

**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 units**

**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 unit**

**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 unit**

**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 units**

**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 units**

**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 units**

**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 units**

**Prerequisite:** Radiologic Technology A110 or concurrent enrollment.

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 unit**

**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 units**

**Prerequisite:** Allied Health A115.

Multi-skill preparation for the allied health professional including management communication skills and business management concepts, and contrast media administration limited to the upper extremity. Three hours lecture, three hours laboratory. **Transfer Credit: CSU.**

**Radiologic Technology A265—Principles of Digital Imaging and Computer Applications — 2 units**

**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 lecture. **Transfer Credit: CSU.**

**Radiologic Technology A270—Radiographic Positioning and Critique 3 — 3 units**

**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 units**

**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 units**

**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 unit**

**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 — 6 units**

**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. Twenty-four hours clinical. **Transfer Credit: CSU.**

**Radiologic Technology A285—ARRT Board Preparation — 1 unit**

**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 units

**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 units

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 units

**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 units

**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 units

**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 units

**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 units

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.

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## RELIGIOUS STUDIES

### Religious Studies A100—Introduction to Religious Studies — 3 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

**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 units

**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 units**

**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 units**

**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 unit**

**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 unit**

**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 unit**

**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 units**

**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 units**

**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 units**

**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 units**

**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 units**

**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 unit**

**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 units**

**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 unit**

**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 units**

**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 units**

**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 units**

**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 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 units**

**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 unit**

**Corequisite:** 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 units**

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 A100—Introduction to Sociology — 3 units**

*Formerly Sociology A180*

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. C-ID SOCI 110**

**Sociology A100H—Introduction to Sociology Honors — 3 units**

*Formerly Sociology A180H*

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 A105—Sociology of Nonverbal Behavior — 3 units**

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 units**

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. C-ID SOCI 130**

**Sociology A150—Multicultural Behavior — 3 units**

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 A185—Analysis of Social Problems — 3 units**

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. C-ID SOCI 115**

**Sociology A185H—Honors Analysis of Social Problems — 3 units**

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 units**

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.**

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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.

**Sociology A200—Introduction to Research Methods — 3 units**

**Prerequisite:** Sociology A100 or Sociology A100H

**Advisory:** Math A160 or A160H, Psychology A160.

Introduces basic steps in the research process and/or basic steps in critically evaluating discussions on social issues using a variety of research methodologies. Emphasizes the scientific investigation of social subject matter. Three hours. **Transfer Credit: CSU, UC. C-ID SOCI 120**

**SPANISH**

**Spanish A160—Spanish for Spanish Speakers — 5 units**

*Formerly Spanish A260*

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 A180—Elementary Spanish 1 — 5 units**

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—Elementary Spanish 1 Honors — 5 units**

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 2 — 5 units**

**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—Elementary Spanish 2 Honors — 5 units**

**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 units**

**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 units**

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 A280—Intermediate Spanish 1 — 5 units**

**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—Intermediate Spanish 1 Honors — 5 units**

**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 2 — 5 units**

**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-LANGUAGE PATHOLOGY ASSISTANT**

**Speech-Language Pathology Assistant A100—Introduction to Speech-Language Pathology Assistant — 2 units**

**Prerequisite:** Allied Health A010.

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 units

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 units

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 units

**Prerequisite:** Speech Language Pathology A100.

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.**

## Speech-Language Pathology Assistant A150—Introduction to Phonetics — 3 units

**Prerequisite:** Speech-Language Pathology Assistant A100.

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 A180—Screening and Therapeutic Processes — 3 units

**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 1 — 2 units

**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 units

**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 2 — 4 units

**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.**

## TECHNOLOGY

### Technology A040—Technical Math — 3 units

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 units

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 units

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 units

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 units

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 units

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 — 3 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 unit

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 unit

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 units

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 units

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 units

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 units

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.**

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## Theatre Arts A175—Stage Scenery — 3 units

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 units

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 units

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—Stage Costuming — 3 units

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 A181—Arts Internship — 1-2 units

Advisory: Internship course must be taken during the last year prior to completion of certificate program.

A supervised internship related to classroom-based learning at a work site related to the student's certificate program. Four to eight hours arranged. This course may be taken four times. **Transfer Credit: CSU.**

## Theatre Arts A188—Body Movement for the Actor — 3 units

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 units

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 units

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 — 3 units

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 — 3 units

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 units

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. This course may be taken four times. One hour lecture, three hours studio. **Transfer Credit: CSU; UC.**

## Theatre Arts A271—Elements of Stage Design — 3 units

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 — 3 units

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 units

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.**

## TUTORING

### Tutoring A050—Supervised Tutoring — 0 units

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 Learning — 0 units

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 unit

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. **Transfer Credit: CSU.**

## VIETNAMESE

### Vietnamese A180—Elementary Vietnamese 1 — 5 units

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 2 — 5 units

**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 1 — 5 units

**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 2 — 5 units

**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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

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 units

**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 — 4 units

**Advisory:** Technology A040.

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 units

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 units

**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 units

**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 units

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 units**

**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 units**

**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 units**

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 unit**

**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 units**

**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 units**

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 units**

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 units**

**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 units**

**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.**

# Faculty

**ABERNATHY, DEAN (2008)**

Instructor, Architecture  
*B.A., California Polytechnic State University, San Luis Obispo*  
*M. Arch., Ph.D., University of California, Los Angeles*

**ADAN, AMINA (1992)**

Professor, History/Geography  
*B.A., Arizona State University*  
*M.A., University of California, Los Angeles*

**ALABI, JESSICA (2007)**

Assistant Professor, Sociology  
*A.A., Santa Ana College*  
*B.A., Chapman University*  
*M.A., Ph.D., University of California, Irvine*

**ALTOBELLI, JOHN E. (1993)**

Assistant Professor, Kinesiology and Athletics;  
 Head Coach, Baseball  
*B.S., University of Houston*  
*M.A., Azusa Pacific*

**ALVES, MITCHELL A. (2001)**

Assistant Professor, Mathematics  
*B.S., University of California, Irvine*  
*M.A., California State University, Fullerton*

**AMARAL, CHRISTINA L. (1985)**

----Professor, Fashion  
*A.A., Orange Coast College*  
*B.A., California Polytechnic State University, San Luis Obispo*  
*M.A., California State University, Long Beach*

**ANDERSON, COURTNEY (2006)**

Assistant Professor, Speech  
*B.A., George Mason University*  
*M.A., California State University, Long Beach*

**APPEL, MATTHEW (2005)**

Assistant Professor, Chemistry  
*B.S., California Polytechnic State University, San Luis Obispo*  
*M.S., Ph.D., University of California, Irvine*

**ARISMENDI-PARDI, EDUARDO (1991)**

Professor, Mathematics  
*A.A., Cerritos College*  
*B.A., California State University, Long Beach*  
*M.S., West Coast University*  
*Ed.D., Nova Southeastern University*

**ARNOLD, HERRICK F. (1969)**

Professor, Political Science/History  
*A.B., M.A., J.D., University of California, Los Angeles*

**AVETISIAN, SONIA (2000)**

Professor, Mathematics  
*A.A., Rio Hondo College*  
*B.A., M.S., California State University, Los Angeles*

**BAGATOURIAN, LINDA (2002)**

Assistant Professor, Counseling Services  
*B.S., University of California, Irvine*  
*M.A., Chapman University*

**BAKER, CHERRY L. (2001)**

Associate Professor, Biology  
*B.A., M.A., California State University, Fullerton*

**BAKER, KAREN (2008)**

Instructor, Marine Science  
*B.S., University of California, Irvine*  
*M.S., San Diego State University*

**BANOCZI, WALTER R. (1996)**

Professor, Neurodiagnostic Technology  
*A.A., Orange Coast College*  
*B.V.E., California State University, Long Beach*

**BARBER, WILLIAM B. (1990)**

Professor, Culinary Arts  
*A.O.S., Culinary Institute of America (New York)*

**BARNARD, DONNA (1995)**

Professor, English  
*B.A., M.A., California State University, Long Beach*

**BARNES, CAROL E. (1985)**

Professor, Counseling Services  
*A.A. Coastline Community College*  
*B.B.A., University of Wisconsin*  
*M.A., Ph.D., Michigan State University*

**BARTON, LAURIE (1999)**

Professor, English as a Second Language  
*B.A., Mills College*  
*M.S., California State University, Fullerton*  
*M.F.A., Antioch University*

**BARVARZ, PARNIAN (1999)**

Professor, Computer Information Systems  
*B.A., M.S., California State University, Fullerton*

**BEARD, DANIEL R. (1975)**

Professor, Food Service Management/Business Education  
*B.A., Washington State University*  
*M.B.A., California State University, Fullerton*

**BEAU, LESLIE (2006)**

Assistant Professor, Business  
*B.A., California State University, Fullerton*  
*M.B.A., Pepperdine University*

**BEHR, LAURA (2005)**

Associate Professor, Women's Crew Coach  
*B.A., Purdue University*  
*M.S., University of Wisconsin*

**BELLAH, GEOFFREY (1991)**

Professor, English  
*B.A., Tulane University*  
*M.A., University of South Carolina*

**BENDER, EDWARD ERIK (1995)**

Professor, Geology  
*B.S., Rider University (New Jersey)*  
*M.S., Vanderbilt (Tennessee)*  
*Ph.D., University of Southern California*

**BERTA, MELISSA (2005)**

Professor, Mathematics  
*A.S., College of the Canyons*  
*B.A., California State University, Northridge*  
*M.S., University of Nebraska-Lincoln*  
*Ed.D. Argosy University*

**BIALECKI, MICHAEL (2006)**

Assistant Professor, Biology  
*B.S., University of Michigan*  
*Ph.D., University of Utah*

**BLAIR, JAMIE M. (1987)**

Professor, Mathematics  
*B.A., M.A., California State University, Long Beach*

**BLOOMFIELD, LISA (1999)**

Professor, Digital Media Arts and Design  
*B.A., University of California, Berkeley*  
*M.F.A., California Institute of the Arts*

**BOSICH, JILL (2008)**

Instructor, Culinary Arts  
*B.A., California Polytechnic State University, Pomona*

**BOYER, DEREK (2007)**

Assistant Professor, Microbiology  
*B.S., M.S., California State University, Long Beach*

**BREECE, WILLIAM H. (1991)**

Professor, Anthropology  
*B.A., California State University, Long Beach*  
*M.A., Ph.D., University of California, Los Angeles*

**BROOKS, JONATHAN (2005)**

Instructor, Sociology and Cultural Anthropology  
*B.A., California State University, San Bernardino*  
*M.A., Ph.D., University of California, Riverside*

**BROWN, JEFFERY (2006)**

Assistant Professor, Spanish  
*B.S., University of California, Berkeley*  
*M.A., St. Louis University*

**CABANEL-BLEUER, DENISE A. (1999)**

Professor, Spanish  
*B.A., M.A., University of California, Davis*

**CABRAL, MARTA R. (2001)**

Professor, Counseling Services  
*B.A., M.A., St. John's University, New York*

**CAMPBELL, LAURIE A. (1997)**

Associate Professor, Early Childhood Education  
*M.A., California State University, Long Beach*  
*B.S., California State University, Fullerton*

**CARLSON, N. RAVIN (1999)**

Associate Professor, Construction Technology  
*A.A., Rancho Santiago College*  
*A.A., A.S., Saddleback College*

**CARROLL, KATHLEEN "KAT" (1985)**

Professor, Speech  
*A.A., Long Beach City College*  
*B.A., M.A., California State University, Long Beach*

**CASSIDY, LORI (2008)**

Instructor, Librarian  
*B.I.S., Shawnee State University*  
*M.S., National University*  
*M.L.S., San Jose State University*

**CASTANO, ROBERT R. (1991)**

Professor, Electronics Technology  
*B.A., California State Polytechnic University, Pomona*

**CHAIYAKAL, JENNIFER (2006)**

Assistant Professor, Early Childhood  
*A.A., Orange Coast College*  
*B.S., California State University, Fullerton*  
*M.A., California State University, Long Beach*

**CLARK, GREGORY D. (1998)**

Professor, Leadership Studies/Management  
*M.A., Chapman University*  
*B.A., University of California, Davis*  
*Ed.D., University of Southern California*

**COATY, PATRICK (1999)**

Professor, Political Science/History  
*B.S., University of Wisconsin-Madison*  
*M.A., Ph.D., Claremont Graduate School*

**COCO, FELICIA J. (2001)**

Professor, Speech  
*B.A., M.A., California State University, Long Beach*

**COLVIN, DIANE (1994)**

Professor, English as a Second Language  
*B.A., California State University, Long Beach*  
*M.A., School for International Training (Vermont)*

**CONGLETON, JOHN R. (2002)**

Assistant Professor, Chemistry  
*B.A., M.S., University of California, San Diego*

**CONNER, GREGORY (1990)**

Professor, English as a Second Language  
*A.A., Los Angeles Harbor College*  
*B.A., California State University, Long Beach*  
*M.A., California State University, Fullerton*

**CONTOPOULOS, NICHOLAS (1991)**

Professor, Astronomy  
*A.S., Merritt College*  
*B.S., California State University, Hayward*  
*M.S., San Diego State University*

**COOLEY, TIMOTHY (2006)**

Assistant Professor, Math  
*B.A., M.A., California State University, Fullerton*

**COOPER, BARBARA (1986)**

Professor, Food Service Management  
*A.A., Orange Coast College*  
*B.S., California State University, Long Beach*  
*M.S., National University*

**CORLEY, CYNTHIA C. (1997)**

Professor, Theatre Arts  
*B.A., University of California, Irvine*  
*M.A., University of Exeter (England)*

**COSTAS, JOSE (1999)**

Professor, Dance  
*B.S., M.Ed., Catholic University of Puerto Rico*  
*M.F.A., Tisch School of the Arts, New York University*

**COX, OLGA PEREZ-STABLE (1974)**

Associate Professor, Psychology  
*B.A., California State University, Fullerton*  
*M.A., Chapman College*

**COX, STEVEN J. (2001)**

Professor, Art  
*B.A., M.A., California State University, Fullerton*

**CUELLAR, ERIC (1999)**

Associate Professor, Counseling Services  
*B.A., M.Ed., University of San Diego*

**CUTENESE, CHARLES J. (1999)**

Professor, Kinesiology and Athletics; Head Coach,  
Women's Volleyball  
*A.A., Orange Coast College*  
*B.A., California State University, Fullerton*  
*M.Ed., Azusa Pacific University*

**DALE, JOHN (2006)**

Associate Professor, Librarian  
*B.A., University of California, Irvine*  
*M.L.S., San Jose State University*

**DELLA MARNA, JODI (1997)**

Professor, Librarian  
*B.A., California State University, Fullerton*  
*M.L.S., University of California, Los Angeles*  
*M.A., California State University, Dominguez Hills*

**DESURRA, CHRISTOPHER (1999)**

Professor, Speech  
*B.A., M.A., San Diego State University*

**DOWLING, THOMAS J. (2000)**

Professor, Art  
*A.A., Los Angeles Valley College*  
*B.A., University of California, Santa Barbara*  
*M.F.A., University of California, Irvine*

**DREW, RENDELL (2004)**

Professor, Social and Behavioral Sciences  
*E.D.D., Pepperdine University*  
*M.P.A., National University*  
*B.A., San Diego State University*

**DRUM, STEPHEN M. (2002)**

Professor, Physics  
*B.S., M.S., University of California, Irvine*

**DUONG, NGHIA V. (1989)**

Professor, Counseling Services  
*M.S., California State University, Fullerton*

**EARICK, DIANNE (1992)**

Associate Professor, English as a Second Language  
*B.A., University of California, Santa Cruz*  
*M.A., California State University, Fullerton*

**ELLIOTT, KELLI (2005)**

Associate Professor, Biology  
*B.S., San Diego State University*  
*M.S., California State University, Fullerton*

**ERNSBERGER, GABRIELA (2008)**

Assistant Professor, Computer Science  
*B.S., University of California, Irvine*  
*M.S., California State University, Fullerton*

**EVANS, CHRISTOPHER W. (1997)**

Professor, English  
*B.A., M.A., California State University, Long Beach*

**FARIDI, ABBAS M. (1989)**

Professor, Physics  
*B.S., Fairleigh Dickinson University (New Jersey)*  
*Ph.D., New York University*

**FELTS, KAREN S. (2000)**

Professor, English  
*B.S., M.A., University of California, Riverside*

**FIGUEROA, BENJAMIN (1999)**

Associate Professor, Counseling Services  
*A.A., Cerritos College*  
*B.A., California State University, Fullerton*  
*M.S., San Francisco State University*

**FOSTER, RODNEY (1991)**

Professor, Aviation Maintenance Technology  
*B.S., Amber University*

**FRECHEN, RICHARD (2006)**

Assistant Professor, Chemistry  
*B.S., California Institute of Technology*  
*M.S., California State University, Fullerton*

**FUNEZ-GONZALEZ, JUANI (1991)**

Professor, History  
*B.A., Universidad del Norte (Chile)*  
*M.A., Ph.D., University of California, Irvine*

**GALVERY, WILLIAM L. (1993)**

Professor, Welding Technology  
*A.A., Orange Coast College*  
*B.V.E., California State University, Long Beach*

**GAYTAN, DONOVAN H. (1991)**

Professor, English  
*B.A., M.A., California State University, Los Angeles*

**GILBERT, STEPHEN D. (1997)**

Professor, Computer Science  
*B.S., California State University, Long Beach*  
*M.S., Azusa Pacific University*

**GILLISSEN, BLADE (2007)**

Assistant Professor, Photography  
*A.A., Orange Coast College*  
*A.A., Rancho Santiago College*

**GOLDMANN, TAMAR T. (1985)**

Professor, English as a Second Language  
*B.A., M.A., University of California, Los Angeles*

**GOLSON, CHRISTOPHER "RICK" (1990)**

Professor, Theatre Arts  
*A.A., Orange Coast College*  
*B.A., University of California, Santa Cruz*  
*M.A., San Francisco State University*

**GOLSON, D. ALEXANDER (1986)**

Professor, Theatre Arts  
*B.A., California State University, Fullerton*  
*M.F.A., University of California, Irvine*

**GONZALES, SHIRLEY L. (1993)**

Assistant Professor, Chemistry  
*B.S., Ph.D., University of California, Irvine*

**GONZALES, JARREN (2008)**

Instructor, Psychology  
*B.A., University of Portland*  
*M.A., Ph.D., University of Notre Dame*

- GORDON, LEE W. (1989)**  
Assistant Professor, Business Education  
*B.S., M.A., Indiana University*
- GOULD, BRIAN (1995)**  
Professor, Music  
*B.A., University of California, Irvine*  
*M.M., D.M.A., University of Southern California*
- GUERRA, ARNOLD, III (2002)**  
Professor, Physics  
*M.S., Ph.D., University of California, Irvine*
- GUILLEN, ALEX (1989)**  
Professor, Counseling Services  
*B.A., California State University, Long Beach*  
*M.S., California State University, Fullerton*
- GUILLEN, DENIA (2008)**  
Instructor, Counseling Services  
*B.A., California State University, Fullerton*  
*M.S., California State University, Long Beach*
- HALL, WILLIAM S. (1991)**  
Professor, Film/Video  
*B.S., San Diego State University*
- HANLON, ANNA (2003)**  
Professor, Kinesiology and Athletics  
*B.S., M.S., MPH., California State University, Fullerton*
- HARLOW, RICHARD (2005)**  
Assistant Professor, Ornamental Horticulture  
*B.S. California State Polytechnic University, Pomona*
- HASSAPIS, PHYLICIA (2003)**  
Professor/Coordinator, Emergency Medical Services  
*B.A., National University*
- HEWITT, ARLENE (1997)**  
Assistant Professor, Chemistry  
*B.A., University of Hawaii*  
*M.S., California State University, Fullerton*
- HIDDEN, MARTA L. (2001)**  
Professor, Mathematics  
*B.A., M.A., California State University, Sacramento*
- HOFFMAN, GLYNIS (1997)**  
Professor, English  
*B.A., M.A., California State University, Fullerton*
- HOGUE, STEVEN (2000)**  
Professor, Counseling Services  
*A.A., A.S., Mt. San Antonio College*  
*B.S., California State University, Los Angeles*  
*M.A., California State University, San Bernardino*
- HOLLANDER, GENA A. (1999)**  
Associate Professor, Anthropology/Sociology  
*B.A., Queens College (New York)*  
*M.A., California State University, Fullerton*
- HUNTER, AMELIE F. (2001)**  
Professor, Dance  
*B.A., M.A., University of California, Los Angeles*  
*M.F.A., Tisch School of the Arts, New York University*
- HUSSAIN, SYED (2008)**  
Instructor, Mathematics/Engineering  
*M.S., South Dakota School of Mines & Technology*
- HUTCHISON, RICHARD J. (1999)**  
Professor, Welding Technology  
*A.A., Cerritos College*  
*B.V.E., California State University, Long Beach*
- IACOPETTI, ANTHONY (2007)**  
Assistant Professor  
Head Coach, Water Polo/Head Coach, Swimming  
*B.B.A., University of New Mexico*  
*M.A., Azusa Pacific University*
- IBRANOSSIAN, AGATHA (2006)**  
Assistant Professor, Photography  
*B.F.A., Art Center College of Design*
- ISAAC, DARRYL (1995)**  
Professor, Cardiovascular Technology  
*B.A., University of California, Irvine*
- JACKSON, NICOLETTE A. (1989)**  
Professor, Counseling Services  
*B.A., M.S., California State University, Long Beach*
- JUPITER, CHERYL (1990)**  
Professor, Counseling Services;  
Director, Transfer Center  
*B.A., University of California, Irvine*  
*M.S., California State University, Long Beach*
- KAGAWA, AKEMI (1999)**  
Professor, Japanese  
*B.A., M.A., California State University, Los Angeles*  
*M.A., University of Southern California*
- KAMPHUIS, JACQUELINE A. (1999)**  
Associate Professor; Coordinator, Tutorial Center  
*B.A., M.A., California State University, Long Beach*
- KATSUKI, ANNA (1994)**  
Professor, Counseling Services  
*B.A., California State University, Long Beach*  
*M.S., University of La Verne*
- KATZ, ELEANOR F. (1971)**  
Professor, Philosophy/Humanities  
*A.B., Randolph-Macon College (Virginia)*  
*M.A., Ph.D., Claremont Graduate University*
- KEEGAN, DIANE (1985)**  
Professor, Counseling Services  
*B.A., Kean College*  
*M.S., Indiana University*
- KEESLER, KATHLEEN (1995)**  
Associate Professor, English as a Second Language  
*B.A., Whittier College*  
*M.S., California State University, Fullerton*
- KEITH, ARLETE BEATRIZ (2005)**  
Assistant Professor, Spanish  
*B.A., M.A., University of California, Irvine*
- KELLY, DENNIS L. (1974)**  
Professor, Marine Science  
*A.A., Fullerton College*  
*B.A., M.A., California State University, Fullerton*
- KELLY, MARILYN N. (1988)**  
Associate Professor, History/Humanities  
*B.A., Butler University*  
*M.A., San Diego State University*
- KENNEDY, MARILYN J. (1999)**  
Associate Professor, English  
*A.A., Cypress College*  
*B.A., California State University, Long Beach*  
*M.A., California State University, Fullerton*
- KENNEDY, PATRICK (1998)**  
Professor, English  
*B.A., M.A., California State University, Long Beach*
- KHAMNEIAN, HAEDEH (1991)**  
Professor, Mathematics  
*B.S., M.S., University of California, Irvine*
- KINGS, ROSE ANNE (2000)**  
Professor, Architecture  
*B.Arch., California Polytechnic State University, San Luis Obispo*
- KIRCH, STACY K. (2001)**  
Professor, Counseling Services  
*B.A., Concordia University*  
*M.S., California State University, Long Beach*
- KNOX, JOHN A. (2001)**  
Associate Professor, Kinesiology and Athletics;  
Head Coach, Cross Country; Men's & Women's Track & Field  
*A.A., Orange Coast College*  
*B.A., California State University, Long Beach*  
*M.Ed., Azusa Pacific University*
- KOINES, ANDREW J. (2001)**  
Professor, Mathematics  
*B.A., University of California, Berkeley*  
*M.S., Ph.D., University of California, Irvine*
- KRAFT, RICHARD J. (2002)**  
Professor, Photography  
*B.F.A., Parsons School of Design*  
*M.F.A., University of Michigan*
- KUBIAK, RENEE C. (2000)**  
Professor, Interior Design  
*B.A., California State University, Long Beach*  
*M.S.D., Arizona State University*
- KUCHECK, WENDY "RIKI" S. (1982)**  
Professor, Mathematics  
*A.A., Saddleback Community College*  
*B.A., M.A., California State University, Fullerton*  
*M.S., University of Southern California*
- KUO, DANIEL (2006)**  
Assistant Professor, Economics  
*B.A., University of California, Berkeley*  
*M.A., University of California, Santa Barbara*
- LA MER, EMMA GRACE (1992)**  
Assistant Professor, Speech  
*B.S., M.A., Arizona State University*
- LAUX, JOHN M. (2000)**  
Professor, Chemistry  
*B.S., Pacific Lutheran University*  
*Ph.D., University of California, Irvine*
- LAWELL, CHERI L. (2001)**  
Professor, Fashion  
*B.A., California State Polytechnic University, Pomona*  
*M.B.A., National University*

**LAZARUS, ROBERT (2000)**

Professor, Film/Video  
B.A., California State University, Fullerton

**LERMA, MARIA DEL PILAR (1993)**

Professor, English as a Second Language  
B.A., University of Southern California  
M.A., California State University, Long Beach

**LIVINGSTON, TAB L. (1997)**

Professor, Mathematics  
B.A., University of Central Florida  
M.A., California State University, Fullerton

**LOHMAN, BENJAMIN J. (2001)**

Associate Professor, Speech  
B.S., Bradley University, Illinois  
M.F.A., Chapman University

**LOREN, DAVI (2001)**

Professor, English  
B.A., M.A., California State University, Northridge  
M.F.A., University of California, Irvine

**LUCKRING, EVE (1999)**

Professor, Photography  
B.A., University Of Delaware  
M.F.A., University of California, Los Angeles

**MAEKAWA, NAOKO (2008)**

Instructor, Mathematics  
B.S., University of California, Irvine  
M.S., University of California, Los Angeles

**MAHER, DEBORAH A. (1999)**

Professor, Psychology  
B.A., M.A., University of California, Riverside  
Ph.D., University of California, Riverside

**MALATY, MARTHA (1998)**

Professor, Computer Science  
B.S., M.S., Ain Shams University (Egypt)  
Ph.D., University of Dortmund (Germany)

**MARAN, JANICE C. (1976)**

Professor, Kinesiology and Athletics;  
Head Coach, Women's Tennis  
A.A., Pasadena City College  
B.A., M.A., California State University, Los Angeles

**MARCINA, VESNA (2002)**

Professor, Political Science  
B.A., California State University, Long Beach  
M.A., Ph.D., University of California, Santa Barbara

**MARRON, ELIAS (1995)**

Professor, Counseling Services  
B.A., California State University, Fullerton  
M.S., California State University, Dominguez Hills

**MAUGHAN, HELEN (2000)**

Assistant Professor, Chemistry  
B.A., Glassboro State College (New Jersey)  
M.A., University of Southern California

**MAURER, ERNEST W. (1977)**

Professor, Aviation and Space  
A.A., Cuyahoga Community College  
B.S., M.A., Kent State University  
Ph.D., University of California, Los Angeles

**MCCALL, LESLIE K. (2001)**

Professor, Photography  
A.A., Cypress College  
B.F.A., Art Center College of Design  
M.F.A., Art Institute of Boston at Lesley University

**MCCLANAHAN, ANNE (2001)**

Associate Professor, Speech-Language  
Pathology Assistant  
B.A., M.A., California State University, Fullerton

**MCCLURE, WILLIAM C. (1987)**

Associate Professor, Mathematics  
A.A., Santa Monica College  
B.A., University of California, Los Angeles  
M.S., California State University, Northridge

**MCCOMB, HELEN (1984)**

Professor, History/Humanities  
B.A., M.A., University of California, Santa Barbara

**MELROSE, CHARLENE TICHY (1972)**

Professor, Psychology  
B.S., Washington State University  
M.S., California State University, San Diego

**MILLIKIN, E. DOUGLAS (1984)**

Professor, Mathematics  
M.S., M.S., Ohio State University  
B.S.M.E., General Motors Institute

**MONAHAN, GEORGIE H. (1989)**

Associate Professor, Speech  
B.A., M.A., California State University, Long Beach

**MOORE, ART (1984)**

Professor, Mathematics  
A.B., M.A., University of California, Berkeley

**MOORE, GREGORY A. (2001)**

Professor, Mathematics  
A.A., El Camino College  
B.A., University of California, Los Angeles  
M.A., Cornell University

**MORGAN, ARABIAN (2006)**

Associate Professor, Accounting  
B.S., M.B.T., University of Southern California

**MORGAN, CARL (1991)**

Professor, Librarian  
B.A., California State University, San Bernardino  
M.L.S., San Jose State University

**MORGAN, DENNIS L. (1999)**

Associate Professor, Business Education  
A.A., El Camino College  
B.S., California State University, Dominguez Hills  
M.B.A., California State University, Long Beach

**MUCCIARO, THOMAS P. (1999)**

Professor, Chemistry  
A.B., Occidental College  
Ph.D., Stanford University

**MUELAS, MARI-AALA (2005)**

Assistant Professor, Spanish  
B.A., M.A., University of California, Los Angeles

**MUIR, ROBERT (1999)**

Professor, Mathematics  
B.S., California State Polytechnic University, Pomona  
M.S., University of California, Irvine

**MURPHY, TIMOTHY G. (2000)**

Associate Professor, Computer Information  
Systems  
B.A., M.A., California State University, Long Beach

**MUSHKIN, HILLARY D. (2000)**

Professor, Digital Media Arts and Design  
B.F.A., Rhode Island School of Design  
M.F.A., University of California, Irvine

**MYERS, JOY (2008)**

Assistant Professor, Registered Dental Assisting  
B.A., B.S., California State University, Long Beach

**MYERS, KEVIN A. (1999)**

Associate Professor, Fine Arts/Ceramics  
B.F.A., M.F.A., Otis College of Art and Design

**NAESSE, IRENE E. (2001)**

Professor, Geography  
B.A., M.A., San Diego State University

**NAUTA, DALE M. (1990)**

Professor, Mathematics  
B.A., California State University, Long Beach  
M.A., California State University, Fullerton

**NAVIDAD, APOLINARIO (2005)**

Associate Professor, Music  
B.A., M.A., California State University, Long Beach

**NEIL, JEANNE M. (2009)**

Instructor, Accounting  
A.S., Mt. San Antonio College  
B.A., M.B.A., California State University, San Bernardino

**NGUYEN, JESSICA L. (2000)**

Associate Professor, Counseling Services  
M.A., California State University, Dominguez Hills

**NORLING, MARCELLA L. (1982)**

Professor, Religious Studies  
B.A., University of California, Santa Barbara  
M.A., National University

**OBSTFELD, LORETTA (2005)**

Assistant Professor, English  
B.A., California State University, Long Beach  
M.F.A., Chapman University

**OBSTFELD, RAYMOND (1976)**

Associate Professor, English  
B.A., Johnston College  
M.A., University of California, Davis

**OCHOA, MARCO (2002)**

Assistant Professor, Kinesiology and Athletics  
B.A., M.A., Adams State College (Colorado)

**O'CONNOR, ROBIN A. (2003)**

Associate Professor, Kinesiology and Athletics  
B.S., York University, Toronto, Canada  
M.A., California State University, Long Beach

**ORTIZ, OSCAR (2008)**

Instructor, Construction  
A.A., El Camino College  
A.A., Los Angeles Trade Technical College

- OVIATT, VINTA M. (1997)**  
Professor, Librarian  
B.A., M.A., *California State University, Long Beach*  
M.L.S., *University of Southern California*
- PARKER, KENNETH (2005)**  
Assistant Professor, English  
B.A., M.F.A., *Saint Mary's College of California*
- PARKER, P. KEVIN (1996)**  
Associate Professor, English  
A.A., A.S., *Saddleback Community College*  
B.A., *University of California, Irvine*  
M.A., *University of Missouri*
- PERKINS, MARC C. (2002)**  
Professor, Biological Sciences  
B.S., *Harvey Mudd College*  
M.S., *Arizona State University*
- PETERS, TIMOTHY (1999)**  
Associate Professor, Construction Technology  
*Vocational Equivalency*
- PETTUS, CANDICE (2001)**  
Professor, Anthropology/Sociology  
A.A., *Orange Coast College*  
B.A., M.A., *California State University, Fullerton*
- PHAM, LIEN (2006)**  
Assistant Professor, Psychology  
B.A., M.A., Ph.D., *University of California, Los Angeles*
- 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)**  
Assistant Professor, 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)**  
Assistant Professor, Diagnostic Medical  
Sonography  
A.A., *Orange Coast College*  
B.S., *Weber State University*
- REED, CHARLENE (2007)**  
Assistant Professor, 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*
- RODRIGUEZ, DAVID R. (1999)**  
Professor, Construction Technology  
A.A., *El Camino College*  
B.S., *California State University, Long Beach*
- ROGERS, MARCIA, A. (1997)**  
Professor, English  
B.S., *Utah State University*  
M.Ed., *University of Utah*
- RUBENSTEIN, ELIZA (2009)**  
Instructor, Music  
B.A., *Oberlin College*  
M.F.A., *University of California, Irvine*
- RUSSELL, GREGORY (2008)**  
Instructor, Biological Sciences  
B.S., *University of Wyoming*  
Ph.D., *University of California, Riverside*
- SACHS, LOREN (2004)**  
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)**  
Assistant Professor, Math  
B.S., M.S., *University of Colorado*
- SAVAGE, JENNIFER (2008)**  
Instructor, Economics  
B.A., *University of Colorado, Colorado Springs*  
M.A., *University of California, Irvine*
- SCANE, DANIELLE (2006)**  
Assistant Professor, 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*
- SIMPSON, MELISSA (2001)**  
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, Kinesiology and Athletics  
*NSCA Certification*  
B.S., M.S., *Iowa State University*
- SMITH, CARL D. (2002)**  
Assistant Professor, Kinesiology 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)**  
Associate Professor, 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, Kinesiology and Athletics  
Head Coach, Men's Basketball  
A.A., *College of Marin*  
B.A., *Sonoma State University*  
M.S., *California Lutheran University*
- 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)**  
Assistant Professor, HVACR

*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*

**TAYLOR, MICHAEL R. (1991)**

Professor, English/Kinesiology and Athletics; Head Coach, Football  
*A.A., Santa Ana College*  
*B.S., Oregon State University*  
*M.A., California State University, Long Beach*

**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)**

Assistant Professor  
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, MARYANN (2001)**

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*

**WELLS, STEPHANIE E. (2001)**

Professor, English  
*B.A., University of California, Berkeley*  
*M.A., University of Virginia*  
*Ph.D., University of California, Davis*

**WERBLIN, CATHLEEN (1999)**

Assistant Professor, Communications  
*B.A., University of Arizona*

**WHEATON, DANA (1991)**

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)**

Assistant Professor, 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*

**WINTER, NICOLAS (1980)**

Associate Professor, English as a Second Language  
*B.S., State University of New York, Cortland*  
*M.A., University of Hawaii*

**YOUNG, RICHARD (2008)**

Instructor, Aviation Pilot Training  
*B.A., Norwich University*  
*M.A., Embry-Riddle University*

**ZELLERBACH, CHARLES (2005)**

Assistant Professor, Business  
*B.A., Williams College*  
*M.B.A., University of Pennsylvania*

**ZHE, ROBERT R. (1989)**

Associate Professor  
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*

# Administration

## DENNIS HARKINS, Ph.D.

President, Orange Coast College  
*Ph.D., Human Resources, Georgia State University*  
*M.A., International Studies, Ohio University*  
*B.F.A., Photography, Ohio University*

## KRISTIN CLARK, Ed.D.

Vice President, Student Services  
*Ed.D., Higher Education, University of Pennsylvania*  
*M.A., Education Technology, Pepperdine University*  
*B.A., Business Management, University of Phoenix*

## JOHN WEISPFENNING, Ph.D.

Vice President, Instruction  
*Ph.D. - Communication, Purdue University*  
*M.S. - Communication, North Dakota State University*  
*B.S. - Mass Communication, Minnesota State University*

## RICHARD PAGEL, Ed.D.

Vice President, Administrative Services  
*Ed.D., Education Leadership, California State University, Long Beach*  
*M.B.A., Technology Management, University of Phoenix*  
*B.A., Psychology, California State University, San Diego*

## PAUL MICHAEL ASIM, Ph.D.

Dean, Social & Behavioral Sciences  
*Ph.D., International Relations, Claremont Graduate University*  
*M.A., Social Science, Azusa Pacific University*  
*M.A., English Literature, University of Punjab (Pakistan)*  
*B.A., English & World History, University of Punjab (Pakistan)*

## BRADLEY AVERY

Director, Marine Programs  
*M.P.A., Public Administration, California State University, Long Beach*  
*B.A., Journalism, University of Southern California*

## KEVIN BALLINGER

Dean, Consumer & Health Sciences  
 Dean, Kinesiology & Athletics  
*M.S.Ed., Educational Administration, National University*  
*B.V.Ed., Occupational Education, California State University, Long Beach*  
*A.A., Certificate in Electrodiagnostic Technology – Neurodiagnostic Technology, Orange Coast College*

## DOUGLAS C. BENNETT

Senior Director, Institutional Advancement  
*M.A., Coaching & Athletic Administration, Concordia University, Irvine*  
*B.A., Communications, California State University, Fullerton*

## DOUGLAS R. BENOIT, Ed.D.

Dean, Business, Computing, Technology & Career Services  
*Ed. D., Higher Education Administration, Arizona State University*  
*M.Ed., Higher Education Administration, Arizona State University*  
*B.S., Vocational & Adult Education, University of Nevada, Las Vegas*

## SUSAN BIERLICH

Director, Children's Center  
*B.A., Child Mental Health Specialist: Child Development, California State University, Northridge*

## LAUREL FRANCIS

Director, Personnel Services  
*B.A., Psychology, California State University, Fullerton*

## EFREN GALVAN

Director, Admissions, Records and Enrollment Technology  
*B.A., Organizational Communication, California State University, Stanislaus*

## MARK GOODE

Director, Maintenance & Operations

## RAINE HAMBLY

Interim Director, Career Services  
*M.B.A., Management & Leadership, University of La Verne*  
*B.S., Public Administration, University of La Verne*  
*A.A., Orange Coast College*

## JEFFERY HOBBS, ABC, APR

Director, Communications & Marketing  
*M.A., Organizational Leadership, Fort Hays State University*  
*B.A., Journalism, California State University, Los Angeles*

## MICHAEL MANDELKERN, Ph.D.

Dean, Literature & Languages  
*Ph.D., English, City University of New York Graduate Center*  
*M.F.A., Film, Columbia University*  
*B.F.A., Film, New York University*

## ANDREA LEE HARRIS-MCGEE

Director, Frank M. Doyle Arts Pavilion  
*B.F.A., Painting & Drawing, Laguna College of Art & Design*

## ROBERT H. MENDOZA, JR., Ed.D.

Dean, Mathematics & Sciences  
*Ed.D., Educational Leadership, University of Sarasota*  
*M.A., Criminology & Criminal Justice, University of Maryland*  
*B.A., Criminology & Criminal Justice, University of Maryland*  
*B.A., Sociology, University of Maryland,*

## MELISSA M. MOSER

*M.B.A., Information Technology – Webster University*  
*B.S., Management, Golden Gate University*

## KATHRYN MUELLER, Ed.D.

Dean, Student Services  
*Ed.D., Educational Leadership and Higher Education, University of Nebraska-Lincoln*  
*M.S., Counseling, California State University, Long Beach*  
*B.A., Comparative Literatures, Scripps College*

## MADJID NIROUMAND

Dean, Enrollment Services  
*M.B.A., Management, California State University, Dominguez Hills*  
*B.S., Management, and Operations Management, California State University, Long Beach*

## CRAIG OBERLIN

Senior Director, Information Technology  
*M.B.A., California State University, Fullerton*  
*B.A., Computer Information Systems, National University*  
*A.A., Business Information Systems, Orange Coast College*

## HUE THI PHAM, Ed.D.

Dean, Counseling  
*Ed. D., Counseling Education, University of Houston, Houston, Texas*  
*M.S., Counseling Education, Marywood College, Pennsylvania*  
*B.S., Michigan, Mathematics, Siena Heights College*

## JOE POSHEK

Dean, Visual & Performing Arts/Library  
*M.Mus., Applied Music – Classical Guitar, Manhattan School of Music*  
*B.Mus., Applied Music – Classical Guitar, Manhattan School of Music*  
*B.A., Applied Music – Composition, Macalester College*

## GLEN A. PROFETA

Director, Applications and Infrastructure  
*M.S., Instructional Design and Technology, California State University, Fullerton*  
*B.S., Computer Engineering, Oregon Institute Of Technology*

## HELEN M. ROTHGEB

Director, Fiscal Services & Campus Budget  
*B.A Business Administration, National University*

## THOMAS M. SELZER C. E. C.

General Manager Instructional Food Service Operation  
*B.A. Hos., Hospitality Studies, Sullivan University*

## SHERI STERNER

Administrative Director, Research, Planning & Institutional Effectiveness  
*M.Ed., Adult Education, Pennsylvania State University*  
*B.A., Psychology, California State University, Long Beach*

## STEVE TAMANAHA

Director, Athletics  
*M.S., Counseling, National University*  
*B.A., English, California State University, Fullerton*  
*A.A., English, Orange Coast College*

## SYLVIA WORDEN, MSN

Associate Dean, Student Health Services  
*M.S.N., University of Florida*  
*B.S.N., University of Florida*

## Medical and Dental Advisors for the School of Allied Health Professions

**STRATTON, SAM, M.D.**  
Emergency Medical Services

**COYNE, BRIAN, M.D.**  
Medical Assisting

**GANDY, JODIE E., M.D.**  
Cardiovascular Technology

**KICIMAN, NAFIZ M., M.D.**  
Cardiovascular Technology

**CHAYASIRISOBHON, SIRICHA, M.D.**  
Neurodiagnostic Technology

**LIM, LESTER, D.D.S.**  
Registered Dental Assisting

**STRICH, GIDEON, M.D.**  
Diagnostic Medical Sonography  
Radiologic Technology

**SELECKY, PAUL, M.D.**  
Polysomnographic Technology  
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  
Fallbrook Hospital, Fallbrook  
Fountain Valley Regional Hospital and Medical Center, Fountain Valley  
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  
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  
Norris Cancer Center, Los Angeles  
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  
Pacific Cardiovascular Associates, Costa Mesa  
Palomar Pomerado Health, San Diego  
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  
Riverside Community Hospital, Riverside  
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  
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  
Southwest Health Care Systems, Murrieta  
Stanford University Medical Center, Stanford  
Torrance Memorial Medical Center, Torrance  
Tri-City Medical Center, Oceanside  
UC Davis Health Systems, Sacramento  
UCI Medical Center, Orange  
UCLA Neuropsychiatric Institute, Los Angeles  
UCLA School of Dentistry, Los Angeles  
UCLA Sleep Disorders Center, Los Angeles  
USC University Hospital, Los Angeles  
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,  
School Districts 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.*

**ADELMANN, DANIEL**

*Professor, Allied Health/Respiratory Care  
1980-2012*

**AKERS, THOMAS M.**

*1975-2011*

**ALLINGHAM-DALE, MURIEL**

*Professor, English  
1971-95*

**ALLEN, JAMES M.**

*Professor, History  
1968-83*

**ANTHONY, PATRICIA**

*Professor, Airline Travel Careers  
1978-03*

**ARFSTEN, PATRICIA E.**

*Professor, Counseling Services  
1974-2010*

**ASHBAUGH, STANLEY**

*Professor, Chemistry  
1974-98*

**ATTORE, LOIS SHAFQAT**

*Professor, Psychology  
1979-06*

**BAKER, EDWARD R.**

*Dean, Fine Arts  
1968-98*

**BANDARUK, THEODORE W.**

*Professor, Biology  
1971-2010*

**BEILIN, PHILIP B.**

*Professor, Physics/Mathematics  
1969-01*

**BELCHER, MARY J.**

*Professor, Early Childhood Education  
1985-2012*

**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*

**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*

**CARNETT, JAMES**

*Director of Community Relations  
1971-2008*

**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

**CORTEZ, JOSE O.**

Professor, Machine Technology  
1999-2010

**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

**DANIELS, SHARON CALLAWAY**

Professor, Biological Sciences  
1973-2011

**DANZIGER, LESLEY**

Professor, English  
1990-06

**DAVIS, KAREN**

Professor, Math & Science  
1997-06

**DECKER, KAREN G. A.**

Professor, Fine Arts  
1970-04

**DEES, ROBERT**

President  
1976-2009

**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. S.**

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

**FARRELL, DAN**

Professor, Allied Health/Respiratory Care  
1980-2012

**FARRELL, GENE**

President  
2002-2005

**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

**FLOWERS, CAROL L.**

Professor, Business Education  
1977-2010

**FOLEY, WILLIAM, H.**

Assistant Professor, Aviation Technology  
1974-95

**FRATANTARO, EDWARD G.**

Professor, Business Education  
1975-04

**FREEMAN, GARY**

Professor, English  
1970-90

**FRICKER, NORMAN C.**

Assistant Professor, Speech  
1985-2010

**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

**GARRISON, TOM S.**

Professor, Marine Science  
1969-2011

**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

**GLEASON, DAVID**

Associate Professor, Physical Education and  
Athletics  
1978-2011

**GOETZ, STEVEN J.**

Professor, Counseling Services  
1989-2010

**GOLDEN, JILL**

*Professor, Food and Nutrition*  
1999-2012

**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.**

*President*  
*Dean of Students*  
1962-95

**GRATTON, MARGARET**

*President*  
1996-2002

**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

**HAYES, LAIRD**

*Professor, Physical Education and Athletics*  
1976-2011

**HAYWARD, VALERIE J.**

*Professor, Mathematics*  
1989-2010

**HEARLSON, KENNETH W.**

*Professor, Political Science*  
1980-2011

**HEAVERN, IRENE J.**

*Professor, English*  
1991-2010

**HENDRICKSON, NOVELLE**

*Instructor, Interiors/Clothing & Textiles*  
1974-87

**HENRY, LORRAINE A.**

*Professor, Radiologic Technology*  
1985-2012

**HILGENDORF, JANE A.**

*Dean, Physical Education and Athletics, Professor,*  
*Physical Education*  
1970-00

**HOEPPNER, ROBERT L.**

*Professor, Counseling Services*  
1964-95

**HOFFMAN, GARY S.**

*Professor, English*  
1971-2011

**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

**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

**JAMES, GARY**

*Dean, Math and Sciences, Professor*  
1967-93

**JARMAN, DAVID L.**

*Professor, Construction Technology*  
1975-98

**JENNINGS, DONALD**

*Professor, Fine Arts/Ceramics*  
1974-2010

**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, JAMES C.**

*Professor, Physical Education and Athletics*  
1973-01

**KARASUDA, SHIN**

*Professor, Computer Science*  
1973-09

**KARR-POWELL, ARLENE**

*Professor, Music*  
1976-95

**KRYDER, NANCY G.**

*Professor, Biological Sciences*  
1973-09

**KIDDER, NANCY L.**

*Administrative Dean, Enrollemt Services*  
1975-07

**KLAMMER, KAREN**

*Associate Professor, Business Education*  
1976-04

**KOFF, SHEILA S.**

*Professor, English*  
1985-2010

**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

**KUNZLER-YETT, BETIL**

*Professor, Anthropology*  
1989-2010

**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

**LEVINE, JOEL M.**

*Professor, Physics  
1985-2010*

**LEVITON, CHARLES D.**

*Professor, Psychology  
1969-03*

**LEWIS, BRIAN**

*Professor, Film/Video  
1970-2010*

**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*

**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*

**MASON, DOUGLAS**

*Professor, History  
1974-2010*

**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*

**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*

**NGUYEN, SO VAN**

*Professor, English as a Second Language  
1992-2011*

**NUDELMAN, JACK**

*Assistant Professor, Electronics Technology/Avionics  
1980-2010*

**O'KEEFE, THOMAS**

*Assistant Professor, English  
1979-00*

**OBERHAUS, 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*

**ORTIZ, KENNETH K.**

*Administrative Dean, Special Services  
1976-2004*

**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*

**PHAN, DAT HUY**

*Professor, Counseling Services  
1985-2009*

**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*

**PONDER, JOHNNY**

*Instructor, Computer Information Systems  
1971-92*

**PONTNEY, JOAN**

*Professor, Microbiology  
1968-81*

**POST, MARTIN**

*Professor, Business Education  
1965-83*

- POWELL, MILDRED S.**  
*Associate Professor, Home Economics*  
1975-85
- PRICE, DAVID G.**  
*Professor, Electro/Mechanical Drafting*  
1974-98
- PRIDDY, BARBARA J.**  
*Professor, Business Education*  
1973-98
- RAGENOVICH, 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
- ROBINSON, STEPHEN J.**  
*Professor, Fine Arts/Sculpture*  
1974-2011
- 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
- SALESSI, SUSANA N.**  
*Professor, Spanish/Italian*  
1974-04
- SANFORD, JOHN R.**  
*Associate Professor, Photography*  
1969-98
- SAWYER, ALAN L.**  
*Professor, Mathematics*  
1957-97
- SCARFONE, PATRICIA M.**  
*Professor, Spanish/Italian*  
1986-04
- SCHMITZ, JOSEPH**  
*Associate Professor, Art*  
1972-84
- SCRIPPSMA, KENNETH E.**  
*Associate Professor, Hotel Management*  
1971-92
- SHANLEY, KAREN L.**  
*Professor, Dance*  
1976-00
- SHARKEY, DONNA L.**  
*Professor, Art*  
1962-86
- SHAW, KENNETH H.**  
*Assistant Professor, Electronics Technology*  
1982-03
- SHROCK, CHERYL R.**  
*Professor, Computer Aided Design/Drafting*  
1990-2009
- 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
- STEADRY, FREDERICK A.**  
*Associate Professor, Photography*  
1971-2012
- STEINFELD, THOMAS E.**  
*Professor, Architecture*  
1999-2010
- STEPHENS, ROY L.**  
*Professor, Aviation and Space*  
1976-94
- STONEKING, JOYCE**  
*Professor, Business Education*  
1978-04
- SUOZZO, JOANNE**  
*Professor, English*  
1989-2011
- 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
- TENNANT, WAYNE W.**  
*Professor, Fine Arts*  
1972-2011
- 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

**VISCO, FRANK J.**

*Professor, Biology  
1968-04*

**VISINTAINER, LINDA L.**

*Associate Professor, Radiologic  
Technology  
1991-03*

**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*

**WEBB, DEBBIE K.**

*Associate Professor, Librarian  
1984-2012*

**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*

**WILLIS, MARGIE CANFIELD**

*Professor, Allied Health/Medical Assisting  
1975-2010*

**WILSON, ROBERT L.**

*Dean, Business Education/Professor, Business  
Education  
1969-95*

**WIN, U KYAW**

*Professor, Counseling Services  
1968-98*

**WENDELL, ROBERT**

*Associate Professor, Art  
1973-2009*

**WOLFE, JUDITH A.**

*Associate Professor, Spanish/French  
1975-03*

**WOLFE, WAYNE H.**

*Professor, Mathematics  
1970-01*

**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*

**WYNNE, ANN M. (1985)**

*Professor, History  
1985-2011*

**YANAGA, RANDALL K.**

*Associate Professor, Mechanical Drafting/Machine  
Technology  
1986-2010*

**YATES, RONALD L.**

*Instructor, Computer Information Systems  
1985-07*

**YETT, JAY R.**

*Professor, Geology/Natural Science  
1984-2010*

**YOST, BETTY**

*Professor, Biology  
1976-90*

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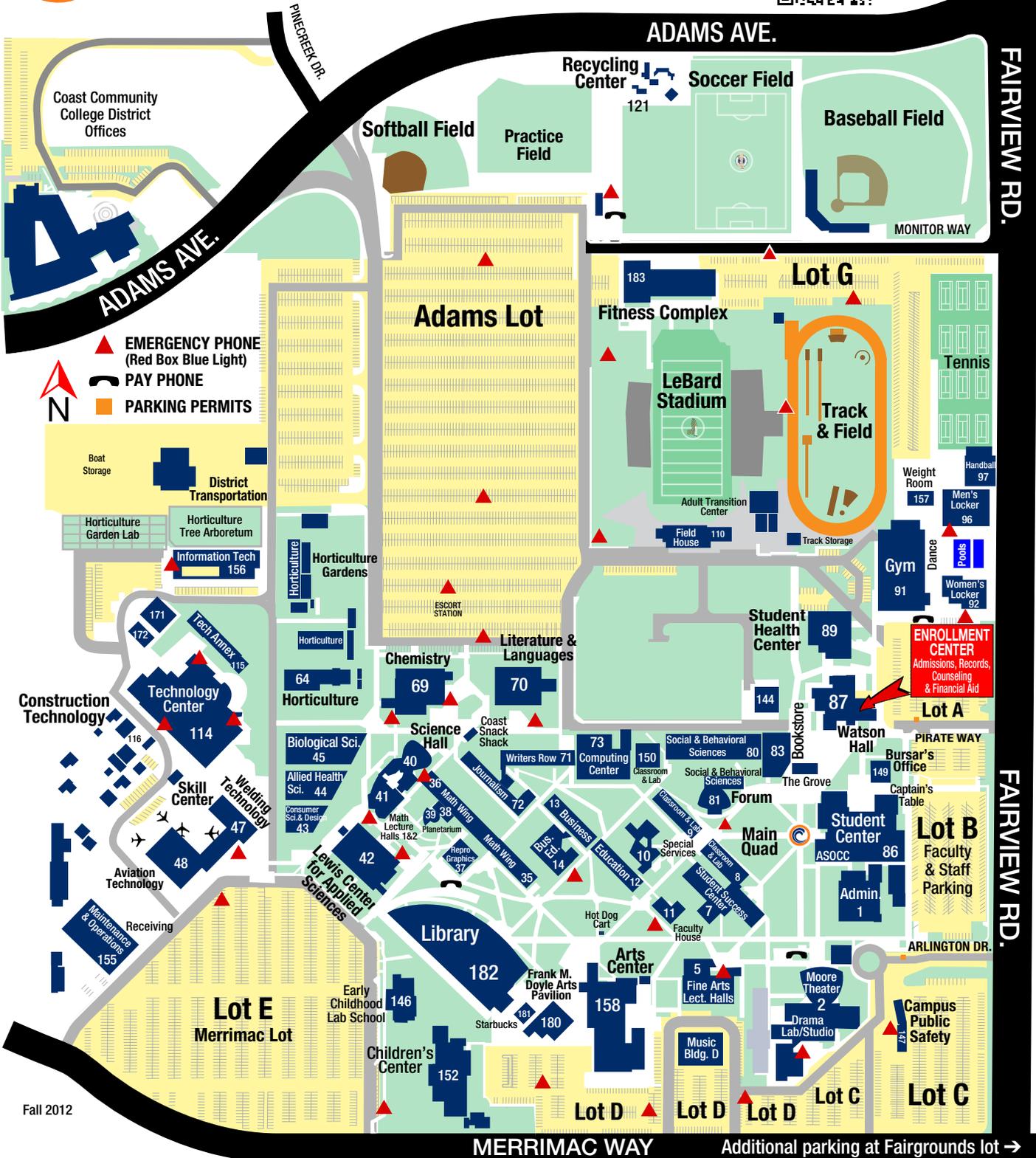


# ORANGE COAST COLLEGE CAMPUS MAP

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Fall 2012

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Additional parking at Fairgrounds lot →

A graphic element consisting of a thick orange curved line above a dark blue curved line, forming a stylized wave or banner shape.

# Orange Coast College

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