The Rancho Santiago Community College District and Santiago Canyon College have made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered, together with other matters contained herein, are subject to change without notice by the administration of the district for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the district and the college. The district and the college further reserve the right to add, amend, or repeal any of their rules, regulations, policies, and procedures.

Santiago Canyon College

2011–2012 CATALOG AND ANNOUNCEMENT OF COURSES

SANTIAGO CANYON COLLEGE
8045 East Chapman Avenue
Orange, CA 92869-4512
714-628-4900

ORANGE EDUCATION CENTER
1465 North Batavia Street
Orange, CA 92867-3504
714-628-5900

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT OFFICE
2323 North Broadway
Santa Ana, CA 92706-1640
714-480-7300

INTERNET ADDRESSES
RSCCD (all sites) ....................... www.rsccd.edu
SCC .......................... www.sccollege.edu

CATALOG CONTENT
The Rancho Santiago Community College District and Santiago Canyon College have made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered, together with other matters contained herein, are subject to change without notice by the administration of the district for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the district and the college. The district and the college further reserve the right to add, amend, or repeal any of their rules, regulations, policies, and procedures.

This catalog is available in alternate format to qualified individuals with disabilities. For more information, phone 714-628-4864 or come to the DSPS Center in E-105.

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
2011–2012 • SANTIAGO CANYON COLLEGE

Rancho Santiago Community College District serves residents of Anaheim Hills, Orange, Santa Ana, Villa Park, and a portion of Garden Grove.

Accredited by the Western Association of Schools and Colleges

Santiago Canyon College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, (10 Commercial Boulevard, Suite 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.
## Santiago Canyon College Instructional Calendar

### College Credit Classes

#### Instructional Calendar 2011–2012

**FALL SEMESTER 2011**
- August 15 – 17: Faculty projects
- August 18 – 19: Common college flex day
- August 22: INSTRUCTION BEGINS
- September 2: Last date to drop with enrollment fee refund (semester-length courses)
- September 5: Labor Day — holiday
- September 23: Last date to file Pass/No Pass option (semester-length courses)

**September 23 – October 1**: Transition to online registration

**October 14**: Deadline to submit Petitions for Graduation and Certificates

**November 11**: Veterans’ Day — holiday

**November 13**: Last date to drop semester-length courses with a “W” grade

**November 24 – 27**: Thanksgiving — holiday

**December 11**: INSTRUCTION ENDS

**December 12 – January 2, 2012**: Winter break

**SPRING SEMESTER 2012**
- January 17 – 18: Faculty projects
- January 19 – 20: Common college flex days
- January 23: INSTRUCTION BEGINS

**February 5**: Last date to drop with enrollment fee refund

**February 17 – 18**: Lincoln’s Birthday — holiday

**February 19 – 20**: President’s Day — holiday

**February 24**: Last date to file Pass/No Pass option (semester-length courses)

**March 2**: Deadline to submit Petitions for Graduation and Certificates

**March 19 – 25**: Spring recess

**March 30**: Cesar Chavez Day — holiday

**April 9 – 14**: OEC Spring recess

**April 16**: Labor Day — holiday

**May 28**: Memorial Day — holiday

**June 1**: OEC Commencement

**June 18**: INSTRUCTION BEGINS

**July 4**: Independence Day — holiday

**August 12**: INSTRUCTION ENDS

### Continuing Education Division

#### Instructional Calendar 2011–2012

**FALL SEMESTER 2011**
- August 22 – 26: Faculty projects
- August 29: INSTRUCTION BEGINS
- September 5: Labor Day — holiday
- November 11: Veterans’ Day — holiday
- November 24 – 27: Thanksgiving — holiday
- December 17: INSTRUCTION ENDS

**December 19 – January 9**: Winter break

**SPRING SEMESTER 2012**
- January 10 – 12: Faculty projects
- January 13: INSTRUCTION BEGINS
- January 16: King’s Birthday — holiday
- February 17 – 18: Lincoln’s Birthday — holiday
- February 20: President’s Day — holiday
- March 30: Cesar Chavez Day — holiday
- April 9 – 14: OEC Spring recess
- May 28: Memorial Day — holiday
- June 1: OEC Commencement

**SUMMER SESSION 2012**
- June 18: INSTRUCTION BEGINS
- July 4: Independence Day — holiday
- August 11: INSTRUCTION ENDS

### Important Dates

- **August 22**: Faculty projects
- **August 23**: INSTRUCTION BEGINS
- **September 5**: Labor Day — holiday
- **September 23**: Last date to file Pass/No Pass option (semester-length courses)
- **October 14**: Deadline to submit Petitions for Graduation and Certificates
- **November 11**: Veterans’ Day — holiday
- **November 24 – 27**: Thanksgiving — holiday
- **December 11**: INSTRUCTION ENDS

### Special Dates

- **SPRING SEMESTER 2012**
  - **April 9 – 14**: OEC Spring recess
  - **May 28**: Memorial Day — holiday
  - **June 1**: OEC Commencement

### Winter Break

- **December 19 – January 9, 2012**: Winter break

### Summer Session 2012

- **June 18**: INSTRUCTION BEGINS
- **July 4**: Independence Day — holiday
- **August 11**: INSTRUCTION ENDS

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* OEC Spring recess dates may be adjusted to correspond to unified school district instructional calendar.
** beginning/ending date could be adjusted
Dear Student:

Congratulations on making one of the most important decisions of your life, to pursue an education. Whether your goal is to transfer to a four-year university, earn an associate's degree or certificate, or train for a new career, we’re here to help you succeed. SCC is a young, growing college that retains the friendly atmosphere and personal attention you need to meet your goals.

Whether a new or returning student, you are the top priority of everyone at SCC. Our faculty and staff provide the best possible education in a caring and supportive environment. Additionally, we offer many services, including tutoring, counseling, job placement assistance, library services, financial aid and more.

Welcome to the SCC family, and I wish you success in your academic pursuits.

Sincerely,
Juan A. Vázquez

**SANTIAGO CANYON COLLEGE MISSION STATEMENT**

Santiago Canyon College is an innovative learning community dedicated to intellectual and personal growth. Our purpose is to foster student success and to help students achieve these core outcomes: to learn, act, communicate and think critically. We are committed to maintaining standards of excellence and providing an accessible, a transferable, and an engaging education to a diverse community.

**RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT**

Governed locally by a seven-member Board of Trustees elected by the citizens of the district, Rancho Santiago Community College District (RSCCD) is a part of the California community college system, one of the three segments of the public post-secondary educational systems in the state.

RSCCD, located in central Orange County, encompasses 193 square miles with a population of approximately 700,000. The district’s boundaries include all of the K-12 schools within the Orange and Santa Ana Unified School Districts, as well as a portion of the Garden Grove Unified School District. RSCCD’s boundaries extend from the eastern portion of the city of Garden Grove, around the perimeters of Santa Ana, Orange, Villa Park, and Anaheim Hills, and east to the Riverside County line.

**Santiago Canyon College and Santa Ana College**

SCC is among the newest community colleges in California. RSCCD was formed in 1971 to serve the cities of Orange, Villa Park and Anaheim Hills. SCC (formerly the Orange Campus) began offering classes in 1985, and became an independently accredited college in January 2000.

Santa Ana College opened in 1915 as an extension of Santa Ana High School, and is the fourth oldest community college in California. Located first on the campus of Santa Ana High School, it moved to downtown Santa Ana, and then to its present location in 1947.

Enrollment in district programs for fall 2010 totaled 44,107. Approximately 22,361 students are enrolled in courses leading to transfer and the attainment of associate degrees. Another nearly 20,000 are enrolled in adult continuing education. In addition, another 2,000 students district-wide are enrolled in short-term, fee-supported classes through the Community Services Program.

The campuses offer associates degrees in more than 150 transfer and career majors, as well as certificates of completion in 75 occupational programs.
District Facilities
Santiago Canyon College is the district’s newest campus located at 8045 E. Chapman Avenue. It opened its first phase of classrooms in fall 1985 under the name of the Orange Campus. It is situated on 82 acres. The Child Development Center opened in fall 1991 to provide childcare services.

Santa Ana College is located on approximately 58 acres at 1530 W. 17th Street in Santa Ana. The college opened in 1915 as an extension of Santa Ana High School, and has been located at its present site, in the heart of Santa Ana, since 1947.

The Orange and Centennial Education Centers house adult continuing education programs, which provide high school diplomas, English as a Second Language and courses that contribute to career advancement.

Metropolitan area television stations also bring classes directly into the homes of many citizens through the Community College Television Consortium.

Opportunity
The Rancho Santiago Community College District provides opportunities for the pursuit of excellence through educational programs and services for local residents. The purpose of these programs and services is to enhance the quality of human life by providing public access to college education. A significant number of classes are scheduled off campus each semester in order to enhance accessibility to students. The map indicates the locations of the major instructional sites within the district.

Accreditation
Santiago Canyon College and Santa Ana College are accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, an institutional body recognized by the Council for Higher Education Accreditation, the U.S. Department of Education, and the Veterans Administration. Santa Ana College is also recognized by the California State Board of Nursing Education and the American Bar Association.

Documents concerning the colleges’ accreditation, licenses and approvals are maintained in the Office of the President of each college. Students wishing to examine these documents may do so by contacting the Office of the President.
RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT INFORMATION

BOARD OF TRUSTEES
President .......................................................... Brian E. Conley, M.A.
Vice President ................................................. Phillip E. Yarbrough
Clerk ................................................................ Mark McLoughlin, CPSM
Member .............................................................. R. David Chapel, Ed.D.
Member ................................................................ John R. Hanna
Member ................................................................ Lawrence R. “Larry” Labrador
Member ................................................................ Lisa Woolery, APR, M.A.
Student Trustee .................................................. Nathan Selvidge

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT ORGANIZATION

CHANCELLOR’S OFFICE
CHANCELLOR ....................................................... Raul Rodriguez
Executive Assistant to the Chancellor ......................... Vacant

Public Affairs/Governmental Relations
Executive Director .............................................. Laurie Weidner, APR
Director—Communications & Internal Affairs ........ Judy Iannaccone
Electronic Media Specialist ..................................... Don Hopkins

Human Resources/Educational Services
EXECUTIVE VICE CHANCELLOR ......................... John Didion
Assistant to the Vice Chancellor ............................... Josie Rodriguez
Assistant Vice Chancellor ..................................... Judy Chitlik
Employment Services Manager ............................ Eloise Marasigan
Risk Management & Employee Benefits .................. Don Maus

Educational Services
Assistant Vice Chancellor ...................................... Enrique Perez
Executive Director—Child Development Services ....... Dee Tucker
Director—Early Head Start Program ..................... Debbie McBee
Director—SAC—Child Development Center ............. Veronica Mackenney
Director—CEC—Child Development Center ............. Enriqueta Isais
Director—SSC—Child Development Center .......... Susan Wahl
Director—OEC—Child Development Center ............. Mary O’Neill
Manager—Family Services—Child Development Center ........ Vacant
Director, ACT Center ........................................ Ruth Cossio-Muniz
Interim Coordinator—Business & Entrepreneurship Center, Local ........................ Martha Payan-Hernandez
Director—Business & Entrepreneurship Centers, Statewide ................................................ Michael Roessler
Interim Director—Center for International Trade Development .......................................................... Wendy Bruget
Coordinator—Youth Entrepreneurship Program .......... Maricela Sandoval
Director—Digital Media Center ............................. Gustavo Chamorro
Director—Grants ............................................... Sarah Santoyo
Director—Institute for Women Entrepreneurs ............ Kari Caldwell-Irwin
Director—Research .......................................... Nga Pham
Director—Corporate Training Institute ...................... Ruth Cossio-Muniz

Business Operations & Fiscal Services
VICE CHANCELLOR ............................................ Peter J. Hardash
Assistant to the Vice Chancellor ............................... Linda Melendez

Auxiliary Services
Director .......................................................... Rhonda Langston
Facility Planning .................................................. Vacant

District Construction & Support Services
Director ............................................................ Darryl Odum

Fiscal Services
Assistant Vice Chancellor ....................................... Vacant
Accounting Manager—Accounts Payable ................ Sheena Tran
Accounting Manager—Payroll ............................... Diane Kincheloe
Project Manager ............................................... Vacant
Director—Accounting ......................................... Vacant
Budget Analysts .................................................. Thao Nguyen, Gina Huegli

Information Technologies Services
Assistant Vice Chancellor ....................................... Sylvia LeTourneau
Director—Computer Programming ......................... Alfonso Oropeza
Director—Academic Support ............................... Curt Childress, Nick Quach
Purchasing
Director .......................................................... Tracey Conner-Crabbe
Security/Safety .................................................. Al Chin

Director—District Safety/Security ............................ Al Chin

SANTIAGO CANYON COLLEGE
PRESIDENT ......................................................... Juan Vazquez
Assistant to the President ....................................... Lynn Manzano
VICE PRESIDENT OF ADMINISTRATIVE SERVICES ........... Steve Kawa
Plant Manager .................................................... Richard Curia
Supervisor—Custodial ........................................ Gabriel Dueñas
INTERIM VICE PRESIDENT OF ACADEMIC AFFAIRS ........... Aracely Mora
Arts, Humanities and Social Sciences
Dean .................................................................... John Weispfenny
American College English (ACE)
Chair ................................................................. Diana Babayan
Art ...................................................................... Vacant
Communication
Chair ................................................................. Jared Kubicka-Miller
English
Co-Chairs ......................................................... Elizabeth Eichlepp, William Lennertz
Humanities
Chair ................................................................. Marcelo Pimentel
Modern Languages
Chair ................................................................. Elizabeth Baez
Performing Arts
Facilitator .......................................................... Shane Cadman
Reading
Chair ................................................................. Mary McMullin
Social Sciences
Co-Chairs ......................................................... Cari Cannon, Scott Howell
Library
Dean ................................................................. John Weispfenny
Chair ................................................................. Joe Geissler

Mathematics and Sciences
Interim Dean and Athletics Director ........................ Martin Stringer
Astronomy
Chair ................................................................. Danielle Martino
Chemistry
Chair ................................................................. Nahla El Said
Earth Science/Geology
Co-Chairs ......................................................... Debra Brooks, Eric Hovanitz
Earth, Space, and Physical Sciences
Chair ................................................................. Morrie Barembaum
Exercise Science
Chair ................................................................. Ian Woodhead
Life Science
Co-Chairs ......................................................... Denise Foley, Michael Taylor
Mathematics
Co-Chairs ......................................................... Craig Rance, Denise Foley, Michael Taylor

Physics/Physical Science
Chair ................................................................. Craig Ratan

Business and Career Technical Education
Dean ................................................................. Vacant
Cosmetology
Public Works
Real Estate
Surveying & Mapping
TV/Video & Communications
Water Utility Science
### NONDISCRIMINATION POLICY

The Rancho Santiago Community College District complies with all Federal and state rules and regulations and does not discriminate on the basis of ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability, or on the basis of these perceived characteristics or based on association with a person or group with one or more of these actual or perceived characteristics. This holds true for all students who are interested in participating in educational programs and/or extracurricular school activities. Harassment of any employee/student with regard to ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability, or on the basis of these perceived characteristics or based on association with a person or group with one or more of these actual or perceived characteristics is strictly prohibited. Inquiries regarding compliance and/or grievance procedures may be directed to District's Title IX Officer and/or Section 504/ADA Coordinator. RSCCD Title IX Officer and Section 504/ADA Coordinator: John Didion, 2233 N. Broadway, Santa Ana, CA 92706, 714-480-7489

### POLITICA DE NO DISCRIMINACION

El Distrito Colegial Comunitario Rancho Santiago cumple con los reglamentos y leyes Federales y estatales y no discrimina en base a ningún grupo étnico, descendencia nacional, religión, edad, sexo, raza, color, antepasados, orientación sexual, discapacidad física o mental o en base a estas características o en base a una persona o grupo que tenga o se crea tenga una de éstas características. Esto también se aplica a todos los estudiantes que están interesados en participar en programas educacionales y/o en actividades escolares que sean extracurriculares. El hostigamiento contra de cualquier empleado/estudiante con respecto a su grupo étnico, descendencia nacional, religión, edad, sexo, raza, color, antepasados, orientación sexual, discapacidad física o mental o en base a estas características o en base a una persona o grupo o por estar asociado con una persona o grupo que tenga o se crea tenga una de éstas características, está estrictamente prohibido.

Las preguntas sobre el cumplimiento de estas leyes o del proceso de quejas pueden ser dirigidas al Oficial del Distrito a cargo del cumplimiento del Titulo IX y al Coordinador de la Sección 504/ADA a: RSCCD Title IX Officer and Section 504/ADA Coordinator: John Didion, 2233 N. Broadway, Santa Ana, CA 92706, 714-480-7489

### CHÍNH SÁCH KHÔNG KỸ THỊ

STUDENT AND ACADEMIC SUPPORT SERVICES AND OPPORTUNITIES

Academic Success Center
The Academic Success Center, located in D-209, is an academic skills learning center that provides individualized instruction, across college divisions and programs using state-of-the-art curriculum and technology. The content and learning objectives are customized to students’ individualized skill levels and needs. Computer programs are self-paced, giving students many opportunities to improve their academic skills. The Center provides students with supplemental instruction in a wide range of college courses including foreign language support and resources assigned to them through their courses. For further information, please call 714-628-4830.

Associate Degrees and Certificates
The college offers more than 60 majors or areas of emphasis leading to an associate degree in arts or science and more than 60 certificate programs. See page 47, for specific instructional programs leading to degrees and certificates.

Bookstore
The Hawk Bookstore at Santiago Canyon College provides a complete selection of books, supplies and specialty items. Visit the Hawk Bookstore in A-101. New, used, digital and rental textbooks are offered. For further information, call 714-628-4736 or visit www.sccollege.edu/bookstore.

CalWORKs
The CalWORKs program at Santiago Canyon College provides assistance to students who are receiving or eligible to receive cash aid. CalWORKs students are provided specialized counseling and support services to help ensure their achievement of educational goals and career readiness. Services include: counseling/case management, vocational training, child care, job services, workshops, and student support services. For more information, call 714-628-4915.

Career Services
Career Services is a program designed to assist currently enrolled students with career decision-making and employment preparation. Services include; career and employment preparation workshops, the Career Development Program for Undecided Majors, guest lecturers from industry, on-campus job fairs, and numerous career and job search resources. Counselors and specialists with expert knowledge are available to assist students. For more information, students can visit Career Services in D-106 or call 714-628-4805.

CAMP
The College Assistance Migrant Program (CAMP) is a federally funded program that provides tailored programs and services to students from migrant and farm working backgrounds. The purpose of CAMP is to support students in making the best of their academic, career and educational goals.

After meeting eligibility requirements, CAMP students receive the following programs and services: financial stipends, university transfer assistance, career counseling, study skills workshops, educational planning, book vouchers, laptop borrowing privileges, financial aid application support, family cultural activities, as well as personal and professional enrichment workshops.

To learn more about CAMP call 714-628-5034, come by our office in A-203 or visit our webpage at www.sccollege.edu/camp.

Community Services
Community Services is a fee-based program that provides classes to the general public for educational, cultural, social and recreational purposes. Classes are not for credit, usually shorter in duration than credit classes, and do not require lengthy preparation or rigorous testing. Participants can choose from a variety of classes that include Creative Arts, Business and Careers, Computer Training, Dance, Health and Fitness, Language, Financial Management, Music, Real Estate, Special Interest and Travel Tours. In addition, academic and recreational College for Kids classes are offered each semester.

For more information call the Community Service office at 714-628-4960.

Continuing Education Program
Santiago Canyon College Continuing Education Division provides noncredit courses and programs. Beyond providing the means for an adult to take classes for a high school diploma, Continuing Education delivers pre-collegiate education in the areas of basic academic skills and English as a Second Language, citizenship, and short-term career technical programs. It also serves the needs of the disabled and parents with special needs. A full range of personal, career and academic counseling services is available to students enrolled in continuing education classes. Located at a number of educational centers throughout the community, courses are offered from 8:00 a.m. to 10:00 p.m. Monday through Friday, and 8:00 a.m. to 2:30 p.m. on Saturday, to allow accessibility to match varying student needs. Specific information regarding admission and registration policies, services available and description of the courses offered can be found in the Continuing Education section of this Catalog. For more information, call 714-628-5900.

Counseling Services
Counseling Services, 714-628-4800, provide a variety of programs and procedures through which individuals are brought into the instructional program, assisted in career planning and development, assisted in planning for and pursuing courses of study, and provided with avenues for obtaining employment.

SCC’s Counseling Program is organized under these major services:

- **Academic Advisement**
  Counselors can help students choose a program of study in relation to their educational objectives. Students are offered assistance in exploring life goals, educational planning, and appropriate course selection. However, the final responsibility for the selection of proper courses rests with the student.

- **Career Planning**
  Counselors can assist students in the development of their career goals and provide information that will indicate the best preparation for reaching these goals.

- **New Student Orientation**
  New students indicating that they plan to complete an A.A. degree or certificate, transfer to a four-year school, or improve basic skills receive an invitation to meet with a counselor on a small group basis. At this orientation/counseling session, the counselor presents information regarding academic program planning, support services and registration.

All new students are encouraged to enroll in Counseling 101 or 116. These courses provide an introduction to college services and programs and help clarify educational and career objectives.

- **Personal Counseling**
  Counselors are available to students who need assistance with problems which may be affecting their academic progress. The emphasis is on short-term counseling focused around problem areas or concerns. When appropriate, students may be referred to other professional services in the community.

- **Testing**
  The Division of Counseling and Student Support Services provides English, ESL/ACE, mathematics, reading and
chemistry placement testing to help students determine their present skill level so that they can select appropriate classes with the help of a counselor. Opportunities are also available for career and study skills assessment on a counselor referral basis or through counseling classes. See the current class schedule for the calendar of assessment services. For more information about testing services, call 714-628-4985.

Child Development Centers
Santiago Canyon College operates two child development centers to serve students’ childcare needs and train students seeking a career in Human Development. Students’ children between the ages of one and five years are eligible to attend. Fees are based on a sliding scale according to parents’ income. Students eligible for the CalWORKs program may receive childcare services both on and off campus. Some space might be available for college faculty and staff at full cost. Contact individual centers for hours of operation and information.

Orange Education Center
1465 N. Batavia, Orange, 714-628-5925
Santiago Canyon College Center
8045 E. Chapman, Orange, 714-628-4890

Disabled Students Programs and Services (DSPS)
DSPS provides instructional support services and academic accommodations to students with verifiable disabilities attending SCC. Program services are designed to ensure that students have an equal opportunity to participate and succeed in all college programs, services, and activities.

Students are responsible for requesting DSPS services and for providing appropriate disability verification from a qualified professional. To apply for services, students must meet with a DSPS professional to complete a program application and have their needs evaluated. The type of assistance provided to students is determined individually based on their disability-related educational needs.

Assessment for Learning Disabilities (LD) eligibility is available to students experiencing ongoing academic difficulties that interfere with their educational progress.

To schedule an appointment, phone 714-628-4860 (voice), 714-639-9742 (TTY) or come to the DSPS Center in E-105.

Distance Education
Distance education courses are Santiago Canyon College credit courses that give students the opportunity to complete most of their coursework outside of the classroom, on their own time. The courses are academically equivalent to on-campus courses. Online courses require students to have computer and World Wide Web access with an individual e-mail account. Students may also use computers in some campus facilities.

The majority of the coursework is done on-line; however, one or more on campus meetings may be required. See a current semester schedule for information about distance education classes.

Extended Opportunity Programs and Services (EOP&S)
Extended Opportunity Program and Services (EOPS) is a state-funded program that provides specialized assistance to students who need additional support due to financial and educational challenges. The purpose of EOPS is to deliver educational services and support necessary for students to complete their educational and personal goals. EOPS provides comprehensive academic, career, and personal counseling. In addition, services may include summer success program, book services, student success seminars, priority registration, university transfer assistance, financial aid application assistance, and additional resources as needed.

EOPS also offers CARE (Cooperative Agencies Resources for Education) to EOPS single parents receiving cash aid with children under the age of fourteen, CARE services are in addition to EOPS, and may include additional book services, transportation assistance, and group support activities.

For more information regarding eligibility call 714-628-4915.

Financial Aid Services
Financial aid is available to qualified students to help meet the cost of tuition, books, supplies, and other educational materials. Students may also be eligible to have their enrollment fee waived. Financial aid staff are available to answer questions and help students through the financial aid process. You may contact us in-person in room E-104 or by phone 714-628-4876 for more information. General information such as answers to frequently asked questions and hours of operation can be accessed online at www.sccollege.edu/Financial Aid.

Health and Wellness Center
Currently enrolled students who have paid the health fee are eligible for services at the Health and Wellness Center. The Health and Wellness Center is staffed by registered nurses. The services of physicians and psychologists are available by appointment. All services are provided without charge, except nominal fees for medications, laboratory tests and some medical procedures when supplies are used.

Emphasis is on health maintenance and wellness promotion. Available health services include the diagnosis and treatment of acute short-term illnesses, first-aid, counseling, birth control, health maintenance and wellness promotion literature, films and programs. Also blood pressure checks, cholesterol monitoring, tuberculin skin testing, community referrals, first-aid care, emergency care and accident insurance coverage for class related injuries are provided.

Refer to the current class schedule for hours at the Health and Wellness Center, or call 714-628-4773.

High School and Community Outreach
The High School and Community Outreach department serves as an integral part of the college and community. Outreach staff provide detailed information regarding the programs that are offered at Santiago Canyon College. The Early Decision program is one of these and offers graduating, high school seniors from the Orange Unified School District priority registration and counseling orientations for the fall semester. Parents, students and community agencies are also connected to campus life via the efforts of Outreach personnel. For more information, call 714-628-4808.

Honors Program and Honors Courses
The SCC Honors Program is dedicated to providing an enriched learning environment for high academic achievers so that they may fulfill themselves personally and acquire the skills and knowledge necessary to succeed at the Associate degree or Baccalaureate degree level. The Honors Program encourages critical thinking, sound decision making, cultural awareness, and effective communication skills through instructional modes that foster independence and responsibility.

Requirements to enroll in an Honors class: Regularly admitted students who meet the course prerequisites may take an Honors
Requirements to continue in the Honors Program:

- Maintain a cumulative GPA of 3.0.
- Complete at least two Honors courses a year for full-time students; one a year for part-time students.
- Complete English 101H during the first year in the Honors Program unless this requirement has already been met by a non-Honors English 101 class or Advanced Placement test.
- May not be involved in or found fault in any disciplinary action as outlined in the SCC catalog and the Student Handbook and Planner.

Requirements to complete the Honors Program:

- Maintain a minimum cumulative GPA of 3.0.
- Complete a minimum of six honors courses or 18 units with a minimum 3.0 GPA.
- Meet with the Honors counselor when accepted and then once a year while in the program.
- Receive no grade lower than C in any college-level Honors class. (Academic Renewal is permitted with prior approval).
- File the Honors Program Completion Petition with Admissions and Records. See Honors Program website for deadlines.
- May not be involved in or found fault in any disciplinary action as outlined in the SCC catalog and the Student Handbook and Planner.

Benefits of the Honors Program:

The many benefits of the Honors Program, including eligibility for President’s Scholar designation and for scholarships, can be found on the Honors Program webpage. All forms, contact information, Honors course listings, and current happenings can be found on the Honors Program website, www.sccollege.edu, select academic programs, and then Honors Program. Students should check this webpage frequently for updates and special events.

COMPLETION OF HONORS PROGRAM:

Completion of Honors Program designation is placed on the transcript and diploma of the graduate who has maintained an overall grade point average (GPA) of 3.0 while completing the Honors Program requirements. In addition, the Completion of Honors Program graduate must have completed 18 units or more of honors coursework.

Library

The Santiago Canyon College Library collection contains over 45,000 books in print format and over 15,000 electronic books. Full-text journal, magazine, and newspaper articles are available through online databases. Remote access is offered to most library resources through the Library webpage. The Media collection includes DVDs, music CDs, videos and audio books on a variety of subjects.

In addition, the Santiago Canyon College Library offers student computer work stations, laptop computers, a wireless network, group study rooms and an instruction lab. There are copy (black & white and color), print and fax stations, and a Self-Check-Out Center.

The Student Innovation Zone (SIZ) provides students with the opportunity to be creative in their academic work with PC, Apple computers and multimedia editing software.

Research assistance is available in person or online.

The library can be reached at 714-628-5001 or online at www.sccollege.edu/library.

Pathways to Teaching Program

The Pathways to Teaching Program is designed to encourage students to pursue an education leading to the teaching profession. Services include academic counseling and transfer assistance, specialized workshops, appointments with university representatives, teacher preparation resource information, and a Future Teachers Club. Annually, academically qualified Pathways students are offered membership in Pi Lambda Theta, an honor society of educators. For more information about the Pathways to Teaching Program, call 714-628-4797.

Public Affairs

Information and publicity regarding college programs and activities is disseminated to the news media and the community through the Santiago Canyon College Public Affairs office.

Summer Session

The college may offer a summer program of morning and evening courses. See the summer session schedule for more information.

Testing Center

Placement testing is provided for English, ESL/ACE, mathematics, reading and chemistry to help determine present skill level for appropriate class placement with the help of a counselor. Career and study skills assessments are offered on a counselor referral basis or through counseling classes. For more information call 714-628-4985.
Transfer Center
The Transfer Center provides resources and services to assist students who are preparing to transfer to four-year colleges or universities. The Transfer Center sponsors various events throughout the year, including tours to universities, university representative advising appointments, transfer fairs, and a variety of workshops to help students with each step in the transfer process. In addition, the Transfer Center provides many useful resources such as; Facebook and Twitter feeds, university catalogs and guidebooks, computers with Internet access, a comprehensive web site, and expert advice from trained specialists and counselors. For more information, stop by D-104-N, call 714-628-4865, or visit www.sccollege.edu/transfer.

Transportation
Some classes may be conducted off campus. Unless students are specifically advised otherwise, students are responsible for arranging for their own transportation to and from the class site. Although the district may assist in coordinating the transportation and/or recommend travel times, route or caravanning, be advised that the district assumes no liability or responsibility for the transportation and any person driving a personal vehicle is NOT an agent of the district.

Tutoring Center
The Tutoring Center, in room U-80, offers a variety of tutorial programs and services designed to maximize student learning potential. The following services are offered by the Center: individual and small group tutoring sessions in a variety of subjects; review sessions prior to examinations and computers for student use. For further information call 714-628-4791.

Veterans’ Services
At the Rancho Santiago Community College District, students interested in seeking veteran’s services at Santiago Canyon College must apply for benefits at our sister college’s Veteran’s Office located at Santa Ana College. Please go to the following website for more information. http://www.sac.edu/students/support_services/Veterans_Resource_Center.htm.

Services for veterans are provided through the Veterans Affairs Office (VAO), located in the Financial Aid Office or the Veterans Resource Center (VRC) at Santa Ana College located in U-103. A certifying official specializing in veteran affairs is prepared to assist with Veterans Administration procedures (phone 714-564-6242). Rancho Santiago Community College District is approved by the California Bureau for Private Postsecondary and Vocational Education for the training of veterans and eligible persons. Educational and vocational opportunities are available for college credit. Opportunities include associate degrees and certificate programs. Counseling is available for day and evening students to assist in achieving educational goals, as well as personal and family guidance.

Eligibility
Veterans who qualify to receive benefits under the Veterans’ Educational Assistance Program (VEAP), Montgomery Bill-Active Duty (Chapter 30), Montgomery Bill-Selected Active Reserve (Chapter 1606/1607), and eligible persons under the Survivors’ and Dependents’ Educational Assistance Program (Chapter 35) are encouraged to take advantage of their educational entitlement.

Veterans with aggregate active duty after 9/10/01 may be eligible for the post 9/11 BIU (Chapter 33). This program includes a basic housing allowance (BAH), book stipend, and tuition/fees.

Veterans with a service-connected disability may be eligible for vocational rehabilitation. This program provides eligible veterans with a monthly allowance as well as payment for tuition, most fees, and necessary books and supplies. War orphans, dependents, and survivors of veterans considered 100% disabled as the result of a service-connected disability, who died from those conditions, or who died while on active duty, may be eligible for benefits. These applicants should seek information regarding eligibility from the VA Regional Office, Los Angeles, phone 1-800-827-1000 or 1-888-442-4551 or contact the local Orange County Service Center, Santa Ana, phone 714-567-7450.

Applying for Benefits
Each veteran and eligible person who wishes to enter a college in the Rancho Santiago Community College District must follow the admissions procedures. See index for details on enrolling. A copy of discharge paper—DD214, is required of new Chapter 30 veterans and a copy of DD2384 of new Chapter 1606/1607 reservists who are using their educational benefits for the first time. A birth certificate is usually required of new dependents. All applicants are encouraged to apply for Advance Payment by checking with the Veterans Affairs Office (VAO) at Santa Ana College at least 45 days before the beginning of each semester. VA forms and Advance Payments requests can be mailed or are available in the VAO, phone 714-564-6242.

Transcripts and Program Approval
VA regulations stipulate that prior credit must be evaluated by the beginning of the third semester of attendance. If the required transcripts are not on file, the VAO will not be able to certify payment beyond the second semester. With this in mind the VAO requests that all official transcripts be on file with the Admissions Office by the end of the first semester of attendance. This will avoid any delay in payments since transcripts do not always arrive in a timely manner.

Veterans and eligible persons must have each course approved prior to registering for each semester. VA requires that the VAO monitor progress towards a specific degree plan. Therefore, for payment purposes, students must select a major and take only those courses on the student educational plan specifically required for that major. College counselors are available to provide comprehensive counseling services for day and evening students, phone 714-564-6100 for Santa Ana College or 714-628-4800 at Santiago Canyon College for an appointment. If you have attended previous schools, official transcripts must be on file before a college program can be approved by the counselor.

Military Credit
Three units for health education and one unit for exercise science may be granted on the basis of military service. When a veteran petitions for graduation and needs these units for graduation purposes, VAO will verify a request for credit from the DD214. The credit granted can be used in area F under Plan A. Under Plan B, three units of credit are granted in area E. Military credit is not accepted under Plan C.

General Information
The Veterans Administration will only pay educational benefits for the period of time that each course is active as shown by the beginning and ending dates in the semester class schedule. Students must be enrolled in at least half time, (6.0 units—regular sessions and 3.0 units—mini and summer sessions) to be eligible for regular payment, under Chapter 33. Students must be more than 1/2 time and have a least one campus based course to receive BAH. A veteran or eligible student attending less than 1/2 time can be reimbursed tuition and fees, not to exceed the normal monthly rate for a full-time, 3/4 time or 1/2 time student. Veterans and eligible persons who wish to...
receive benefits must notify the VAO at the beginning of each semester by completing a VA benefit request form. Satisfactory progress must be maintained by all VA applicants. A veteran or eligible student may enroll in open circuit television classes. All those collecting VA educational benefits are required to immediately report any changes of classes, both adds and drops, to the Veteran Affairs Office.

Veterans and eligible dependents/spouse who are on academic probation, below 2.00 grade point average (GPA), or course completion or progress probation, attempted units exceeds 50% of completed units, must show a continued improvement in GPA or course completion with each semester after the below 2.00 GPA deficiency. A student who is on academic probation shall have VA educational benefits payments suspended after showing two semesters without satisfactory progress towards graduation requirement of 2.00 GPA. In such instances, a student must petition for recertification and must show a counselor-approved program indicating what course of action must be completed to maintain satisfactory progress towards graduation requirements.

Weekend Classes
Classes may be offered on Friday evenings, Saturdays, and Sundays so that students can earn units applicable to the associate degree, earn units for transfer to four-year schools, or gain personal enrichment.
STUDENT LIFE

Associated Student Government (ASG)
The Associated Student Government was established to provide students with government and leadership experience. Opportunities are available to become involved in campus and statewide committees and councils as student representatives. Learn first hand about group dynamics and decision making, program planning, and running effective meetings. Additionally, there are many student clubs and organizations to join. For more information, please call 714-628-4913.

Student Life and Leadership
The office of Student Life and Leadership promotes and supports students' co-curricular interests and provides excellent opportunities through the Student Leadership Institute (SLI), the Associated Student Government, and student organizations. The office also provides a variety of services to students, faculty, and staff through assistance with student-focused event planning. For more information, please call 714-628-4912 or visit A-206.

Multicultural and Leadership Resource Library
The Multicultural and Leadership Resource Library was developed to engage students and provide cross-cultural awareness and leadership resources. The library provides a variety of resources in the form of books, audio, and video. For more information, please call 714-628-4912.

Campus Centers
The T-Buildings house the Inter-Club Council office, food services at the Hungry Hawk Cafe, and the Student Health and Wellness Center. To reserve rooms for use, call the Santiago Canyon College facilities office at 714-628-4719.

Student Clubs and Organizations
The Inter-Club Council (ICC) represents all active student clubs and organizations on campus to promote leadership development, networking, communication skills and campus life. For more information and/or to form a new student club, please call 714-628-4917.

Current student organizations include:
• Cycling and Triathlon Club
• English Club
• EOPS Club
• Libertarian Club
• Math Club
• Phi Theta Kappa Honor Society
• Philosophical Society
• Psi Beta (Psychology Honor Society)
• Santiago Business Club
• SCC Student Revival
• Teachers for Tomorrow
• Unite the People

Intercollegiate Athletics
Santiago Canyon College, home of the Hawks, is proud of its athletic teams and their rich athletic history. The college has fielded teams since 1999 and now offers competitive opportunities for student athletes in eight sports: men's and women's cross country, men's golf, men's and women's soccer, softball, and men's and women's track and field.

The Hawks compete in the highly competitive Orange Empire Conference (OEC) under the auspices of the California Community College Commission on Athletics. SCC's outstanding coaching and teaching staff, combined with an excellent system of academic assistance, has helped eligible students transfer to four-year colleges and universities.

Current facilities include a fitness center, where student-athletes work on strength and conditioning, soccer fields and a softball field. Construction has begun on a new gymnasium and aquatics complex which will include a state-of-the-art fitness center, strength lab, aerobics studio, men's and women's locker rooms, athletic training facilities, three indoor courts, swimming pool and administrative offices. The gymnasium is scheduled to open in 2012.

All prospective student-athletes with questions about eligibility should contact the Director of Athletics at 714-628-4816.

SCC Athletic Achievements
• 2010 OEC Champions in Women's Soccer
• 2010 Men's Individual State Golf Champion
• 2009 National Champions in Women's Soccer
• 2009 State Champions in Women's Soccer
• 2009 OEC Champions in Women's Soccer
• 2008 OEC Champions in Women's Soccer
• 2007 State Championship Finalist in Women's Soccer
• 2007 Women's Golf OEC Champions
• 2007 Men's Soccer Qualified for Southern California Regional Play-offs
• 2006 State Champions in Women's Soccer
• 2006 Men's Golf OEC Champion
• 2004–07 Women's Soccer OEC Champion
Financial Aid and Scholarships

Financial Aid is intended to help students who might not otherwise be able to attend college. Although the primary responsibility for meeting college costs rests with the student and his or her family, it is recognized that many families have limited resources and are unable to meet the cost of a college education. Federal and state financial aid programs have been established to provide assistance to students with documented financial need.

The application process for financial aid begins with the completion of the Free Application for Federal Student Aid (FAFSA) which is available in January for the following fall semester. In order to qualify for financial aid a student must be enrolled in an eligible program of study leading to completion of an AA/AS degree, transfer requirements or a certificate program; maintain satisfactory academic progress; for most programs, have demonstrated financial need; be a U.S. citizen or eligible non-citizen; certify compliance with selective service registration requirements; not be in default on any student loan or owe a refund on any grant made under any Title IV program; have a social security number, and have a high school diploma, or GED or pass the Ability to Benefit test, or complete 6 college credits towards a certificate degree.

For additional information and a Free Application for Federal Student Aid (FAFSA), stop by the Financial Aid Office, located in room E-104, or call 714-628-4876. You may also apply online at www.FAFSA.ed.gov.

Withdrawals & Repayment of Financial Aid Funds

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

If the student received more financial aid than the amount earned, the student will be billed for the overpayment. Financial aid recipients are advised to 1) avoid total withdrawal from all classes, 2) successfully complete at least 6 units during the semester, 3) if completely withdrawn, repay any "unearned" financial aid as soon as possible. Failure to do any of the above may result in the loss of financial aid eligibility.

Federal PELL Grant

This grant is a federally funded program designed to be the foundation of financial aid for undergraduates who demonstrate need. The amount of the PELL Grant is based on the cost of attendance, minus the expected calculated family contribution and the student's enrollment status at the time of payment. Award amounts vary according to eligibility and enrollment. Please check with the Financial Aid Office or visit the website for the maximum and minimum PELL award amounts. PELL Grants are limited to 18 semesters.

Federal Supplemental Educational Opportunity Grant (FSEOG)

This federally funded grant is available to undergraduate students who demonstrate exceptional financial need. The awarding of FSEOG funds must be given to PELL Grant recipients.

Federal Work-Study (FWS)

This federally funded program provides employment opportunities to students with financial need. Students awarded FWS receive an allocation of funds earned through part-time jobs on campus. FWS provides an excellent "learning process" through on-the-job training.

FSEOG and FWS Programs

These programs have limited funds and are generally awarded only to those eligible students who meet the "Priority Deadline" and to those students with the least amount of estimated family contribution (EFC).

William D. Ford Federal Direct Loan Programs

Subsidized Stafford Loan

The federal government pays the interest on this need based student loan. No payments are required while the student remains actively enrolled in at least six units and at the end of enrollment; there is a six month grace period. The maximum annual loan amounts are $3,500 for freshmen and $4,500 for sophomores.

Unsubsidized Stafford Loan

There is no income criteria on this non-need based federal student loan for students who are enrolled in at least six units. Interest begins accruing immediately. Interest payments may be made or payments can be deferred. Maximum annual loan amounts are $3,500 for freshmen and $4,500 for sophomores.

Additional Unsubsidized Stafford Loan

This additional $6,000 loan is available to independent students: $2,000 is available to dependent students who meet the qualification requirements.

Parent Loans for Students

This loan is for parents who borrow on behalf of dependent students. The parent's credit will be checked by the lender. Repayment of principal and interest begins immediately. The amount borrowed cannot exceed the cost of attendance, minus any other financial aid and resources received by the student.

Chafee Grant

This grant program is available to former foster youth. Awards are $5,000 per year. Apply using the FAFSA and the separate Chafee Grant application.

California State Programs

Board of Governors Waiver (BogW)

A State program for California residents to waive the enrollment fees at community colleges. There are several ways to qualify for a BogW:

The student demonstrates financial need according to federal methodology based on completion of the Free Application for Federal Student Aid (FAFSA);

OR

The student or the student's family, is receiving CalWORKS, formerly TANF/AFDC, or SSI (Supplemental Security Income), or General Assistance/General Relief, or the student is a disabled veteran or a dependent of a deceased or disabled veteran as certified by the California Department of Veterans Affairs, or the student is a recipient or the child of a recipient of the Congressional Medal of Honor, or the student is a dependent of a victim of the 9/11/01 terrorist attack, or the student is a dependent of deceased law enforcement/fire suppression personnel killed in the line of duty.

OR

The student meets specific income criteria based on family size as set by the State of California.

Cal Grants

Cal Grant programs are available to California residents who qualify. A student must be a U.S. citizen, a permanent resident or an eligible non-citizen, and a California resident attending an eligible college located in California and making satisfactory academic progress. Apply between January 1 and March 2 each year using the FAFSA and GPA verification forms. The college electronically transmits GPA verification for certain students. There is a second application deadline of September 2nd each year.
Cal Grant A
Cal Grant A assists low and middle income students with tuition costs at four-year institutions. Eligibility is based on academic achievement and financial need.
If you qualify for a Cal Grant A and plan to attend a public community college, the Student Aid Commission will put the student's tuition/fee award on reserve for 2 years until the student transfer to a four-year college, provided that the student continues to qualify financially by demonstrating financial aid unmet need.

Cal Grant B
Cal Grant B provides assistance in meeting living expenses (i.e. books and supplies, housing costs and transportation). Awards range from $300 to $1,551. Eligibility is based on demonstration of substantial financial need and enrollment status.
Cal Grant B also funds tuition costs for sophomores at the same rate as Cal Grant A. Students must be actively enrolled in 6 units.

Cal Grant C
Cal Grant C assists vocational students with tuition and training costs. Awards range up to $576 for related training costs such as special clothing, tools, equipment, books and supplies, and transportation. The Cal Grant C program is intended to provide training in areas of manpower need and is for non-transfer majors.

Bureau of Indian Affairs Grant (BIA)
The Bureau of Indian Affairs provides grants to assist eligible American Indian students in meeting educational costs. To be eligible, the applicant must be at least one-fourth American Indian, Eskimo, or Aleut heritage, as certified by a Tribal Agency served by the Bureau of Indian Affairs, be enrolled as a full-time student (12 or more units) and be eligible for financial aid at Santiago Canyon College.

Scholarships
Many community benefactors, SCC faculty and staff, and organizations establish scholarships at Santiago Canyon College to recognize academic achievement and offer needed financial support.
Eligibility varies according to the individual scholarship. There are scholarships available to students taking classes at Santiago Canyon College, those transferring to four-year colleges, and those entering college for the first time upon graduation from high school.
Listings and requirements for the various SCC student scholarships are published each Spring in a comprehensive scholarship book. Information, applications, and assistance are available in the Scholarship Office on campus.
Applications must be submitted for screening in March and student recipients will be recognized at a ceremony in May.
For information regarding scholarships that are available for high school seniors, contact the Scholarship Office or the High School and Community Outreach Office.
For applications or more information, please contact the Scholarship Office at 714-628-4793.

Honors and Awards
Phi Theta Kappa. Phi Theta Kappa is an international honors society that recognizes academic excellence and achievement of students enrolled in two-year colleges. The society offers a myriad of opportunities for scholarship, intellectual enrichment, personal development and academic recognition.
The Beta Eta Rho Chapter of Phi Theta Kappa was organized at Santiago Canyon College in 1998.
Membership in Phi Theta Kappa is extended each semester by the local chapter to students who have completed a minimum of 12 degree units with a minimum of grade point average of 3.5. Members receive special recognition when they graduate.

Pi Lambda Theta. Founded in 1910, Pi Lambda Theta (PLT) is the oldest and most selective national and professional honor society of educators. Santiago Canyon College became a host college for PLT in Fall 2003. Members benefit from résumé and career services, research grants and professional scholarships, conferences, and a complementary quarterly journal entitled “Educational HORIZONS.”
Membership is extended to students who have at least thirty (30) transferable units with a minimum grade point average of 3.5 and are in the top 5% of students pursuing an academic program leading to a career in teaching. Students in Santiago Canyon College’s Pathways to Teaching Program are nominated each year for this honor.

Pi Beta. Pi Beta is the national honor society in psychology for community and junior colleges. The mission of Pi Beta is professional development of psychology students through promotion and recognition of excellence in scholarship, leadership, research, and community service.
Membership in Pi Beta is extended each semester by the local chapter to students who have completed one psychology course and 12 semester hours of total college credit and have an overall GPA of 3.2 with at least a “B” average in psychology courses.
Members receive special recognition upon graduation.
Sigma Chi Eta. The purposes of Sigma Chi Eta are (a) to recognize, foster, and reward outstanding scholastic achievement in communication studies; (b) to stimulate interest in the field of communication; (c) to provide an opportunity to discuss and exchange ideas in the field of communication; (d) to establish and maintain closer relationships and mutual understanding between speech communication studies faculty and students; (e) to explore options for community college students who will transfer to a four-year college or university or enter the world of work. The Omicron Chapter at SCC was founded in 2004. Students who qualify may apply for membership by contacting the advisor, Dr. Melinda Womack. In order to become a member of a Sigma Chi Eta chapter, the student must:
• have completed at least 12 semester hours
• have completed at least three communication courses or 9 semester hours (or at least 12 quarter credit hours) of communication study;
• have a cumulative GPA of at least 3.0;
• have a communication studies GPA of at least 3.25;
• be in good standing at the college;
• display commitment to the field of communication.

Santiago Canyon College Foundation
The Santiago Canyon College Foundation is a 501 (c) (3) not-for-profit corporation serving a diverse college community and meeting the needs of the Orange service area. The board of directors of the college foundation represents a broad-based group of community volunteers dedicated to enhancing the developmental and program needs of the college and district.
The non-profit foundation sponsors fundraising events throughout the year and is actively involved in community projects to broaden the awareness of college and district activities. To this end, the college foundation solicits the support of the community by receiving tax-deductible donations of cash gifts, bequests, trusts, endowments, corporate grants, life insurance benefits, and personal or real property.
Join in the drive to maintain, expand and enhance educational opportunities at Santiago Canyon College. For more information about the foundation and how to participate in supporting programs, please contact the foundation office directly by calling 714-628-4790.
Alumni Program

The SCC Alumni Program was founded to promote and facilitate a lifelong relationship between SCC and its former students and to encourage ongoing support for the college. It brings together volunteers, faculty and students to achieve the goal of keeping Santiago Canyon College a place that nurtures personal growth and contributes to lifelong enrichment opportunities. All students who have completed an associate degree, transferred to a four-year institution, completed a certificate program, or taken coursework at SCC to gain new knowledge are encouraged to register with the Alumni program. Stay connected with college reunions, special alumni activities, events, and fund raisers. Register at www.sccollege.edu/studentservices/alumni

Student Placement Office

The Student Placement Office operates under the umbrella of Financial Aid Services providing the Student Assistant Employment Program. Upon determining eligibility students are matched with departments based on their educational goals. As a student assistant you will have the unique opportunity to earn while you work in a professional environment.

Call or visit the Student Placement Office in A-206A to make an appointment and attend an orientation for more information, call 1-714-628-4867 or online at www.sccollege.edu/jobplacement.
ADMISSIONS, REGISTRATION, AND RECORDS

Admission Requirements

Who May Attend

High school graduate

OR

Person in possession of a California high school proficiency certificate or GED

OR

Person 18 years of age or older who can profit from instruction,

OR

High school student qualifying for Career Advanced Placement program.

How and When To Apply

New students and students returning after an absence of one or more semesters must file an application for admission to the college. (Summer is not counted.)

File transcripts of high school(s) and colleges attended with the Admissions and Records Office if carrying more than six units or pursuing a degree at Santiago Canyon College.

Application dates:

Fall semester .................. beginning April 1
Spring semester ............. beginning November 1
Summer session ............... beginning April 1

How To Prepare for Proper Course Placement and Registration
(Matriculation Program)

Matriculation helps students achieve their educational goals by matching student skills, needs and goals to the college’s courses, programs and services. Students who have information about their skills will make the best educational choices.

To assist students in successfully reaching academic goals, a student needs to complete an assessment, orientation, and advisement program called matriculation. All students who meet one of the following conditions should complete this program.

1. Plan to accumulate 15 units at Santiago Canyon College.

2. Plan to enroll in an English composition, reading, English as a Second Language (ESL), or math course.

3. Work toward an Associate Degree, occupational certificate, transfer to a four-year university, or new career.

4. Students with bachelor’s degrees or higher are exempt from matriculation.

Assessment

Tests in English and reading. ESL/ACE, math, and chemistry are provided to help a student determine present skill levels so that appropriate classes can be selected with the help of a counselor. Consult the testing schedule that is listed in the Schedule of Classes or contact the Testing Center at 714-628-4985.

For English, there are two tests. The College Test of English Placement (CTEP) is for students who have studied English and/or ESL (English as a Second Language) in school for at least seven years or who use English frequently on a daily basis. The other test, the Test of English Language Development (TELD) is for students who have not studied English and/or ESL in school for at least seven years or who do not use English frequently on a daily basis. Students taking the TELD will be referred to ESL classes. Students who take the wrong test may be placed in a class that is not right for them. By the time that is realized, it may be too late to register for the appropriate class.

The Math Diagnostic Testing Project (MDTP) has four different levels. Students choose the level they feel best prepared for. Sample questions for each test are available in the Testing Center and in the Counseling Center.

Students who have attended another college with the necessary coursework in English, reading, math and/or chemistry, already completed can bring official transcripts to the counseling department for verification.

For information regarding Disabled Student Services (physical, learning and/or communication disabilities) call 714-628-4860.

Orientation

Upon completion of testing, students will be directed to schedule an appointment for an orientation session with a counselor. The counselor will present information about classes, programs, and requirements and will explain test results.

Advisement

After orientation, students will meet with a counselor to plan a first semester educational plan based on test results, individual needs, assessments, interests and educational goals.

How To Register For Classes

New or Former Students

New or former students who completed an application will receive their student number, WebAdvisor login and temporary password by email. Students are encouraged to go online, change their temporary password and find their registration appointment time.

1. Students identified as matriculating students must complete testing and orientation prior to their priority registration time.

2. Non-matriculating students are encouraged to use assessment, advisement and other matriculation components in planning class programs. Students are requested to complete the matriculation package after completing twelve units, when enrolling in general education courses numbered 100 and above, or when enrolling in courses or programs requiring prerequisite assessment of skills. Consider enrolling in a counseling course the first semester and meeting with a counselor to develop a long-range educational plan.

Continuing Students

A continuing student is a student who attended the previous semester. The student may check online for their registration date and time and may register online at that time or any time until the semester begins. Students are encouraged to see a counselor each semester in order to review their academic progress before completing registration.

Schedule of Classes

A schedule of classes is prepared each semester and is available online. It includes general information, courses offered, hours, rooms, and instructor names. Schedules are available before registration in the bookstore.

Open Enrollment

Unless specifically exempted by statute, every course wherever offered and maintained by the college is fully open to enrollment and participation by any person who has been admitted to the college and meets the approved course prerequisites.
Student Photo Identification Card

A student is eligible for a photo identification card after paying for classes and the photo I.D. fee. Photo I.D. is located in the Cashier’s Office in E-102. This card facilitates student use of the Library, Health and Wellness Center, computer laboratories, the Admissions Office, and a variety of college services. Current fees are listed in the schedule of classes.

Full-Time – Part-Time Definition

Full-time students are enrolled in 12 or more units; part-time students are enrolled in fewer than 12 units.

Residency

All students are classified as either a resident of the State of California or non-resident when applying for admission. A “resident” is a student who has residence in the state for more than one year before the initiation of a semester or term (EC 68017), based on the “Residency Determination Date” which is the day immediately preceding the opening of instruction. A non-resident is a student who has not established residence in the State of California for one year as of the residency determination date.

1. Persons who are 18 years of age or older (adults) establish residency in accordance with EC 68017 above. Adult residency begins after the 18th birthday.

2. Persons who are under 18 years of age (minors) establish residence in accordance with above “resident” definition and the following:
   a. Married minors may establish their own residence.
   b. The residence of the parent with whom an unmarried minor child maintains a place of abode is the residence of the unmarried minor child. When the minor lives with neither parent, residence is that of the parent with whom the minor last resided. The minor may establish residence when both parents are deceased and a legal guardian has not been appointed.
   c. The residency of unmarried minors who have a parent living cannot be changed by their own acts, appointment of legal guardians, or relinquishment of a parent’s right of control (EC 68062).

3. Exceptions apply under certain conditions to active members of the military.

4. Specific residency problems will be answered by the Admissions and Records Office.

5. Non-Citizen Students: Students with a “permanent resident” visa, refugee status, or amnesty approval may establish residency in accordance with above discussion. All visas must be examined by the college to determine residency status.

International Student Admissions

A limited number of international students (F-1 Visa) are eligible for admission each year. International students who plan to attend under a student visa should apply to the International Student Office located at Santa Ana College for forms and instructions. Application deadlines are July 1 for the fall semester, and December 1 for the spring semester. A $25.00 application fee is required with the application. For more information call 714-564-6047.

Admission Policy of International Students on F-1 Visa Status:

1. The international student must submit a complete, official academic transcript of all high school and previous college work attempted. Transcripts must be officially translated into English, bear the school seal, and be signed by the registrar or another appropriate official. Applicants are considered for admission only if their course grades are above average (C- or higher).

2. International students must have sufficient knowledge of English to enable them to profit from instruction at the college level. Adequacy of English proficiency is determined by a satisfactory score (450+) on the Test of English as a Foreign Language (TOEFL), administered worldwide by the Educational Testing Service, Box 899, Princeton, New Jersey 08540.

3. International students must be at least 18 years of age unless they are graduates of an accredited United States high school.

4. Students on the F1 Visa must present evidence that they have financial resources to defray costs during the period of attendance at the college. Approximate annual costs for a student enrolled in 12 units each semester are a non-resident tuition fee of $4,920.00; enrollment fee of $624.00; health insurance $908.00; $600.00 for textbooks and supplies; $12,000.00 living expenses; and other fees which could come to $183.00 for a total of $19,052.00.

5. International student applicants must be in good physical health as certified by a licensed physician on the form provided by the college. Measles and poliomyelitis immunization must be completed. The physical examination by a physician must include a chest x-ray report and indicate that students have no contagious disease.

6. Proof of health insurance is required prior to registration. The college accepts no responsibility for medical expenses incurred by international students.

7. Santiago Canyon College does not provide housing for students; however, placement with an American Host Family is available upon request. A listing of apartments will be made available to all new students and assistance with locating housing will be provided.

Fees and Expenses/ Drop for Non-Payment

Drop for Non-payment Policy: Enrollment fees must be paid in full within 3 days of registration (including weekends and holidays) or all classes will be dropped and released to other students. The day you register is counted as day 1 of the 3 days.

1. All students are required to pay enrollment fees of $36.00* per unit within 3 days of registration (counting the day of registration). Please note: The tuition fee per unit at the time of printing this catalog was $36.00*. Visit www.sccollege.edu for updated fee information.

If classes are not paid within that time, the student will be dropped from all classes and will have to re-register.

Students will NOT be dropped for non-payment beginning the Thursday before the new semester begins and will NOT be dropped for non-payment during the semester.

2. A health fee of $17.00 per semester ($14.00 for summer session) is charged to all students whether or not they choose to use health services. Health Fee Exemptions (Education Code 76355): (1) Any student who depends exclusively upon prayer for healing in accordance with the teachings of a
bona fide religious sect, denomination, or organization, provided that the student presents documentary evidence of an affiliation with such a bona fide religious sect, denomination, or organization. (2) Any student enrolled in an approved Apprenticeship Program. A request for an exemption may be filed at the Admissions & Records Office.

3. Parking Permits are $20.00 for fee waiver students and $30.00 for regular students. All mandatory fees must be paid in order to purchase parking. A permit is required to park on campus at SAC and SCC only. Only one permit is necessary for students who attend both colleges. Motorcycles are exempt in designated parking areas.

4. A Student Service fee of $7.50* is payable at registration for classes. The fee includes $2.50 for a Photo ID for college services: (1) Library, Student and Instructional Services; and (2) $5.00 for college activities. Photo ID and semester validation is available at Santiago Canyon College. These services and fees are optional.

5. The Santiago Canyon College Student Representation Fee of $1.00* is charged per semester. The $1.00* mandatory fee (Education Code 76060.5) is used by the Associated Student Government to represent the view of students with governmental agencies.

Non-Resident Tuition
Non-resident Tuition: $200.00* per unit in addition to the per enrollment fee for out of state residents and for students who are a citizen of a foreign country. Refer residency questions to the Admissions Office.

Visa or MasterCard and Discover are accepted for all fees.

*Fees and tuition are subject to change by the State Legislature, California Community Colleges Board of Governors, or the Rancho Santiago Community College District Board of Trustees. For the up-to-date fee and tuition information, visit www.sccollege.edu.

Textbooks and Supplies
Textbooks, supplies, and athletic equipment must be purchased by the student. Special fees required for certain courses are indicated in the class schedule.

Refund of Tuition (Non-resident)
Students who withdraw from class(es) through the first two weeks of instruction may request a 100% refund. Students withdrawing after the second week of instruction are not eligible for a refund. (See current semester schedule.)

Refunds are based upon the date the student submits the withdrawal form to the Admissions Office.

No refund will be processed until assurance has been given that any check in payment for tuition has been cleared.

Refund of Enrollment Fees
Enrollment Fee refunds are granted in accordance with established provisions of the community college education code. Contact the Cashier’s Office or refer to the current class schedule for details of the refund policy and procedures.

There is no refund for variable units not completed.

RSCCD Rates Of Student Progress

Student Right-To-Know Act
The rates below are placed here in accordance with the federally mandated Student Right-To-Know Act.

Of the degree, certificate or transfer seeking first-time freshman students who entered RSCCD colleges in Fall 2005, the “completion rate” represents those students who earned an Associates Degree, certificate of completion, or 56 UC/CSU transferable credits within three years.

<table>
<thead>
<tr>
<th>2006 COHORT COMPLETION RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
</tr>
<tr>
<td>40%</td>
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<tr>
<td>30%</td>
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<tr>
<td>20%</td>
</tr>
<tr>
<td>10%</td>
</tr>
</tbody>
</table>

The “transfer rate” represents non-completer students who transferred to any other two- or four-year institution within three years.

<table>
<thead>
<tr>
<th>2006 COHORT TRANSFER RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
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<tr>
<td>40%</td>
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<td>30%</td>
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<tr>
<td>20%</td>
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<tr>
<td>10%</td>
</tr>
</tbody>
</table>

These rates do not represent the success rates of the entire student population at RSCCD colleges nor do they account for student outcomes occurring after this three-year tracking period.

Registered Sex Offender Information
Current information concerning registered sex offenders can be obtained by going to: www.meganslaw.com.

“Sex offenders are required to register with the police in the jurisdiction in which they reside and at institutions of higher learning if they are students there or if they work there as employees, contractors, or volunteers. Sex offenders who may be required to register should do so at the Orange Police Department if attending Santiago Canyon College.”

Registered Sex Offenders are also asked to identify themselves to Campus Safety.

Right To File a Grievance Regarding Matriculation
Any student who feels that she/he has been discriminated in the matriculation process (assessment, orientation, advisement) may file a grievance with the Matriculation Coordinator. For additional information call 714-628-4775.

Right To Review and Challenge Records
The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student’s education records within 45 days of the day the University receives a request for access.

Students should submit to the registrar, or dean of admissions, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected.

2. The right to request the amendment of the student’s education records that the student believes is inaccurate.

Students may ask the college to amend a record that they believe is inaccurate. They should write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate.
If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll. [NOTE: FERPA requires an institution to make a reasonable attempt to notify the student of the records request unless the institution states in its annual notification that it intends to forward records on request.]

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Santiago Canyon College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

   Family Policy Compliance Office
   U.S. Department of Education
   400 Maryland Avenue, SW
   Washington, DC 20202-5901

Solomon Amendment For Military Recruiters

The Solomon Amendment is a federal law that allows personally identifiable student information to be released to recruiters that would have been denied them under FERPA. This law mandates that institutions receiving federal financial aid must fulfill military recruitment requests for access to campus and lists of students. If Santiago Canyon College fails to comply with these requests from military recruiters, the college will lose federal financial aid funding. Santiago Canyon College releases only directory information to military recruiters.

Grievance Procedures

Rancho Santiago Community College District and the colleges in the RSCCD do not discriminate on the basis of race, color, national origin, ancestry, religion, creed, sex, age or handicap in its employment or in its educational programs and activities. Students may file a grievance when they believe they have been discriminated against in any of these areas.

Students may also file a grievance when they believe they have been deprived of a right granted by the Board of Trustees in any of the policies or regulations of the District.

The purpose of all grievance procedures is to resolve differences as fairly and expeditiously as possible while preserving the rights of students and staff members.

Information on student grievance procedures is available at Santiago Canyon College. Grievances should be filed with the Associate Dean of Student Development, in room A-201.

Testing Policy

The following testing policies were developed by the Math, Reading, and English/ACE faculties. Please read instructions carefully, because this may determine when you decide to take the placement tests. If you have any questions, please call the testing office at 714-628-4985.

Photo I.D. is required for all testing

Math Department Testing Policy

1. A student shall be allowed to retest on the same level math exam one year after the first attempt. If a student has taken the incorrect math exam and has not enrolled in a math class, he/she may take a different level math test at any time.

2. If a student has taken a math placement test at SCC or SAC and does not enroll in a math class for 1 year, he/she must retest. (i.e. The math test is valid for 1 year.)

3. Once a student has been placed in a course sequence he/she must complete the course sequence and may not skip courses by testing. Exceptions may be made on a case-by-case basis by a math faculty member.

American College English (ACE) Department Testing Policy

1. Students shall be allowed to test once per 2 year period.

2. If a student has taken an ACE placement test at SCC and does not enroll in an ACE class for 2 years he/she must retest.

3. Once a student has been placed in a course sequence he/she must complete the course sequence and may not skip courses by testing. Exceptions may be made on a case-by-case basis by an ACE faculty member.

English Department Testing Policy

1. Students shall be allowed to test once a year.

2. The English test is valid for 2 years.

3. If a student has taken an English placement test at SCC or SAC and does not enroll in an English class for 2 years he/she must retest.

4. Once a student has been placed in a course sequence he/she must complete the course sequence and may not skip courses by testing. Exceptions may be made on a case-by-case basis by an English faculty member.

Reading Department Testing Policy

1. Students shall be allowed to test once a year.

2. Test scores will be valid indefinitely. If a student has taken a reading placement test at SCC or SAC he/she will not be required to retest.

* A faculty member can be a member of the discipline, or a counselor.
Academic Freedom
The instructor should be free to think and to express ideas, free to select and employ materials and methods of instruction, free from undue pressures of authority, and free to act within his/her professional group. Such freedom should be used judiciously and prudently to the end that it promotes the free exercise of intelligence and student learning. Academic freedom is not an absolute. It must be exercised within the law and the basic ethical responsibilities of the teaching profession. Those responsibilities include:

1. An understanding of our democratic tradition and its methods.
2. A concern for the welfare, growth, maturity, and development of students.
3. The method of scholarship.
4. Application of good taste and judgment in selecting and employing materials and methods of instruction.

Academic Honesty Policy Information
Introduction
Students at Santiago Canyon College are expected to be honest and forthright in their academic endeavors. To falsify the results of one's research, to steal the words or ideas of another, or to cheat on an examination, corrupts the essential process by which knowledge is advanced. Academic dishonesty is seen as an intentional act of fraud, in which a student seeks to claim credit for the work or efforts of another without authorization, or uses unauthorized materials or fabricated information in any academic exercise. We as an institution, also consider academic dishonesty to include forgery of academic documents, intentionally impeding or damaging the academic work of others, assisting other students in acts of dishonesty or coercing students into acts of dishonesty.

Procedures
In cases where a violation of academic honesty is discovered, the faculty member is encouraged to file an "Academic Misconduct Incident Report" form and distribute the form to the appropriate offices listed.

There are two categories of sanctions: Limited and College-wide. Limited sanctions include an academic action such as assigning a lower grade or a grade of "F" for the test or project. College-wide sanctions include any sanction that will affect a student's standing with the college-at-large, up to and including suspension or expulsion from the college.

In matters relating to academic honesty violations, the primary responsibility for disciplinary proceedings rests with the instructor and the academic division where the violation allegedly occurred. The Associate Dean of Student Development will assist in all College-wide sanctions at Santiago Canyon College.

Academic Honors
Academic Honors at Graduation
Academic honors are awarded to students who do outstanding coursework leading to graduation from Santiago Canyon College. The graduate must have completed at least 30 units of coursework within the Rancho Santiago Community College District.

Students with Academic Renewal Without Course Repetition are not eligible for Academic Honors. Rancho Santiago Community College District coursework and all transfer work will be computed in the Honors designated GPA. Graduation honors are awarded as follows:

PRESIDENT’S SCHOLAR. The President's Scholar designation is placed on the transcript and diploma of the graduate who has achieved an overall grade point average (GPA) of 3.5 and completed the Honors Program requirements. In addition, the President's Scholar graduate must have completed 18 units or more of honors coursework. All letter grades must be "C" or better.

WITH HIGHEST HONORS. The highest honors designation is placed on the transcript and diploma of the graduate who has achieved an overall grade point average (GPA) of 4.0.

WITH HIGH HONORS. The high honors designation is placed on the transcript and diploma of the graduate who has achieved an overall grade point average (GPA) of 3.8. A minimum of 18 units completed within the Rancho Santiago Community College District must be completed with the letter grade of "C" or better.

WITH HONORS. The honors designation is placed on the transcript and diploma of the graduate who has achieved an overall grade point average (GPA) of 3.5. A minimum of 18 units completed within the Rancho Santiago Community College District must be completed with the letter grade of "C" or better.

DEPARTMENTAL HONORS. Honors are awarded to students who do outstanding work in their majors. Eligibility is determined by inclusion in the academic honors categories listed above. Selection is made by departmental faculty with the division dean’s approval.

Attendance and Drops
Drop for Non-payment Policy: Enrollment fees must be paid in full within 3 days of registration (including weekends and holidays) or all classes will be dropped and released to other students. The day you register is counted as day 1 of the 3 days.

Students are expected to attend all sessions of the classes in which they are enrolled. Students should report absences due to illness to the instructor prior to missing class.

Students are required to pay for all courses they enroll in. Failure to pay their fees within 72 hours of enrollment will cause the student to be dropped.

A student may be dropped for excessive absences when the total hours of absence exceed 10% of the total scheduled hours of the class.

Under extenuating circumstances, a student may be reinstated by the instructor. A student may also be dropped by the instructor when not appearing at the first class meeting.

It is the student’s responsibility to withdraw officially from a course.

Academic Renewal
Inasmuch as past performance does not always reflect accurately a student’s actual ability, Santiago Canyon College has established a policy of academic renewal.

A student may petition the Exception to Academic Regulations Committee two or more years after the recording of the substandard work to have up to 20 units of below C work at Santiago Canyon College/Santa Ana College disregarded in the computation of the grade point average.

To be eligible, the student must have completed 30 letter grade units with a grade point average of 2.0 or complete 15 letter grade units with a grade point average of 3.0 in semesters or sessions of academic enrollment from the beginning of the renewal period. Units will be counted from the semester immediately following the substandard work. All semesters following cannot contain any substandard grades.
The petition shall require the approval of
the Exceptions to Academic Regulations
Committee, and the permanent academic
record shall be annotated in such a
manner that all work remains legible.
Petition approved work will not count
toward graduation or general education
certification requirements. Students
approved for Academic Renewal are not
eligible for Academic Honors. After AA/AS
degree, or CSU or IGETC certification has
been applied for and is posted, academic
renewal is not accepted.

Academic renewal at a college in the Rancho
Santiago Community College District does not
guarantee that other institutions will approve
such action. This determination will be made
by the respective transfer institutions.

Course Repetition for Non-
Repeatable Courses

A student who earns a D, F, or NP grade
may repeat the course once to improve the
grade of the substandard work. The last
grade earned stands.

A student may not repeat a course to change a grade of C or above. (Note this
same procedure may be followed in case of grades UF and WF which appear on
some older transcripts.) Courses repeated under
the provisions of this section will be
indicated as repeated on the permanent
academic record of the student.

A student may not repeat a course to change a grade of a course identified as
repeatable in the college catalog. All grades
earned within the repeatability sequence will count as completed courses regardless
of grade earned.

Course repetition at Santiago Canyon
College does not guarantee that other
institutions will approve such action.
This determination will be made by
the respective transfer institutions.

Repeatability of Courses

Courses may be repeated under the
following circumstances:

Substandard Work: when a student has
earned a grade of D, F, NP (No Pass).
Substandard work may be repeated once.
(See Course Repetition Policy.)

Repeatable Courses: when it is identified as
repeatable in the class schedule and college
catalog.

Special Circumstances include: a significant
lapse of time (three years), accident, illness,
or other circumstances beyond the control
of the student. Courses repeated under the
provisions of this section must have a grade of
"C" or better, and will be indicated as
repeated on the permanent academic record
of the student. Grades awarded for courses
repeated under provisions of this section
shall replace the original grade. Only one
repetition may be used for significant lapse
of time (W counts).

* SCC follows the Title 5 regulations set by the
state legislature, Community College Board of
Governors, or District Board of Trustees. These
regulations are subject to change at any point
during an academic year.

Personal Interest Courses: The number of
courses which may be taken within an area
of personal interest is limited to a total of
four times. A personal interest area may be
defined as (1) a physical activity such as
tennis or swimming or circuit training;
(2) a performance activity such as concert
band or choir or theatre production; or
(3) a studio art activity such as ceramics or
watercolor or painting. An exception to this
policy is the student who is working toward
a certificate and/or an associate degree in
a particular discipline which requires more
than four courses in one or more activities.

Variable Unit Courses: A variable unit
course may be continued until the maximum
number of units has been earned.

Honors Courses: A student who has
completed a Santiago Canyon College
Honors course and who has received a
substandard grade may repeat the course
without the Honors notation attached
to the course number. If a student
participating in the Santiago Canyon
College Honors program chooses to repeat
the non-Honors version of the course,
there will be consequences relating to
participation in the Honors program. Please
refer to the Honors Program and Honors
Courses section of the catalog, page 9.

Career Advanced Placement
The steps listed below allow high school
students to use college credit coursework to
meet high school graduation requirements.

1. Request a Career Advanced Placement
form and obtain approval from your
high school to enroll at Santiago
Canyon College.

2. All college class prerequisites must be met.

3. Any student who is not yet 16 years
of age must have approval from the
division dean.

4. Any high school student who registers
as a full-time student will be charged
the regular community college
enrollment fees.

5. Cap students by law are the last
students to be registered. This occurs
one week before the start of the
semester or session.

Attendance
Students are expected to attend all sessions
of the classes in which they are enrolled.
Students should report absences due to
illness to the instructor immediately upon
returning to class.

Auditing
Santiago Canyon College does not permit
auditing of classes.

Classification of Students

Career Advanced Placement - one who has
not been graduated from high school.

Freshman - one who has completed 0-29 units.

Sophomore - one who has completed 30 or
more units.

Graduate - one who has received an
associate degree or higher.

External Exams

Students who have completed external
examinations such as Advance Placement
(AP), International Baccalaureate (IB), or
College-Level Examination Program (CLEP)
may earn college credits towards general
education and/or major requirements. It
is strongly recommended students make
an appointment with a Santiago Canyon
College counselor to discuss appropriate
credit placement.

Advanced Placement
With Credit (AP credit)

Course credit is granted for Advanced
Placement Examinations with a score of three
or higher if the Santiago Canyon College
discipline faculty concerned have determined
that the material covered is comparable to
specific course offerings in the catalog. For
specific information about how advanced
placement exams apply to the associate
degree and transfer to a UC or CSU campus.
Please see pages 42-43 of this catalog.
The College-Level Examination Program (CLEP)

Santiago Canyon College will grant a maximum of 30 units of credit for any combination of CLEP General and Subject Examinations. CLEP credit will count toward Santiago Canyon College graduation requirements, but will not be counted toward the 12 unit residency requirement. CLEP credit will only be approved if college credit has not been granted in the given area either before or after CLEP date. This is considered repeated work.

CLEP credit granted at Santiago Canyon College can be used to meet general education certification for the California State University (Plan B). CLEP exams cannot be used to meet general education for IGETC requirements.

Students who have earned credit for a CLEP exam should not take comparable college courses because credit will not be granted for both.

**CLEP General Examinations**

Not more than 4 units of credit may be earned in each of the general examinations with a maximum of 16 units. Required scores for general examinations are listed below:

<table>
<thead>
<tr>
<th>General Examinations</th>
<th>RCCCD Req Score</th>
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</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>50</td>
</tr>
<tr>
<td>Social Science History</td>
<td>50</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
</tr>
<tr>
<td>Mathematics</td>
<td>50</td>
</tr>
</tbody>
</table>

Applications for CLEP General Examination credit are available in the Admissions and Records Office at Santiago Canyon College.

**CLEP Subject Examinations**

A list of the CLEP Subject Examination scores and credits granted towards general education for the Associate Degree and the California State University General Education-Breadth requirements can be found on pages 44-45.

**International Baccalaureate (IB) Examination Program**

Course credit is granted for International Baccalaureate Examinations with scores of 5, 6, or 7 on higher level exams only. IB credit can be used to meet the CSU GE and IGETC certification requirements. Students who have earned credit for an IB exam should not take a comparable college course because transfer credit will not be granted for both. For specific information about how International Baccalaureate Exams apply to the associate degree and transfer to a CSU or UC campus. Please see page 46 of this catalog.

**Credit By Examination**

1. Applications for credit by examination may be obtained in the Admissions and Records Office at Santiago Canyon College. The student will be advised whether a testing fee is to be charged and where it should be paid. Applicants must be currently enrolled at Santiago Canyon College and be in good standing.

2. Information about courses which may be challenged for credit by examination is available in the Division Offices.

3. A student must not enroll in a course which is to be challenged. In the event a student decides to challenge a course in which he or she is already enrolled, he or she must withdraw from that course prior to the end of the second week of instruction.

4. Credit may be earned only for courses that are: 1) currently listed in the catalog, and 2) specifically designated eligible for credit by examination. A student may attempt credit by examination only once in a particular course.

5. Students should be aware that some divisions offer credit by examination only on specific dates; therefore, students should obtain examination schedules from the appropriate offices as early in the semester as possible.

6. The dean, in consultation with the department involved, will determine whether a departmental or a standardized examination is to be administered and when and where it will be administered. At this same time, the student will be given a course outline and any other pertinent information detailing subject matter requirements of the course being challenged.

7. Students may apply for credit by examination in sequential courses, but may take examinations for the courses having prerequisites in the sequence only if credit has been earned by examination or coursework in the earlier course(s) of the sequence.

8. Grading of the examination is on a Pass/No Pass basis. Pass represents a grade of “C” or better and will be shown on the transcript as “credit by examination”. Grades less than “C” will be reported to the Admissions and Records Office but not recorded on the transcript. “Pass” grades will be computed as units earned but will not be counted in the grade point average.

9. The examiner shall transmit examination results to the Santiago Canyon College division office. The division dean will review the examination results and will transmit this information to the Admissions and Records Office.

10. Units for which P is given in this category will not be counted in determining the 12 semester hours of credit in residence required for a certificate or an associate degree.

11. A student cannot take Credit by Examination to improve a substandard grade.

**F.E.R.P.A. Family Education Rights and Privacy**

As required under the provisions of the Family Education Rights and Privacy Act of 1974, the colleges in the Rancho Santiago Community College District will make public without student consent only certain directory information. This consists of the following: a student's name; city of residence; major field; participation in officially recognized activities and sports; weight, height and age if a member of an athletic team; dates of attendance; degree and awards received; and the most recent previous educational institution or agency attended by the student.

A student initially agrees or denies a FERPA release at the point of application. However, a student may come to Admissions at any time to opt out of the FERPA disclosure or agree to the release of directory information. Admissions Forms: "FERPA Consent to Release" or "FERPA Consent NOT to Release" directory information.

**Grades and Grade Point Average**

Grades are based upon the quality of work done; that is, upon actual accomplishment in courses offered for credit. Credit by examination, Pass/No Pass, “W’s” and “I’s” are not figured into grade point averages. The grade point average is computed by dividing all other units attempted into all grade points received. The meaning of each grade and its value in grade points is as follows:
### Grade Reports

Grades are generally available online by the Wednesday after the semester ends. Check in WebAdvisor for them.

### Grade Grievances

**Procedures for Student Grievances Regarding Grades**

Education Code 76224 states:

(a) When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetency, shall be final.

**Procedure**

1. Students may request a grade change no later than one year following the awarding of the original grade.
2. Student shall meet with the instructor to discuss the grade.
3. If the issue is not resolved and the student believes that the grade is based on mistake, fraud, bad faith, or incompetency (EC 76224), he/she may appeal in writing to the Division Dean.

Forms for the written appeal may be found in Division offices or the office of the Vice President of Student Services.

4. The student may be requested to set up an appointment with the Division Dean to discuss the written grievance.
5. The Division Dean will review the allegations and consult with the instructor.
6. The Division Dean will review the issue and will notify the student and instructor in writing of his/her decision.

7. The decision of the Division Dean is final.

### Incomplete Work

When a student has attended regularly but because of illness or other unavoidable circumstances is unable to complete coursework or take the final examination, a grade of "I" may be given. If an "I" is issued, the instructor completes the Incomplete Grade Form which includes the condition(s) for removal of the "I", and the grade to be assigned if the condition(s) are not completed. A student may not re-register in the same class if an incomplete grade is pending. The work thus missed must be made up no later than one year following the end of the term in which it was assigned and does not include attending class lectures. A student may petition the instructor for a time extension due to unusual circumstances. It is the student's responsibility to contact the Admissions and Records Office in such cases.

A final grade will be assigned when the work stipulated has been completed and evaluated according to the conditions set forth by the instructor or when the time limit for completing the work has passed.

### Independent Study

Independent study allows students to pursue projects under faculty advisement and supervision. The projects may be directed field experience, research, or development of skills and competencies. Independent study credit may be earned in any discipline. Transfer credit is indicated as Independent Study 199.

Independent study projects are normally for one unit of credit and require a minimum of 48 hours of directed work per unit of credit. Within the 48-hour minimum the instructor meets with each student on a weekly basis for at least one hour or a minimum of 16 hours for each one-unit project. The proposed project must be approved by the supervising instructor and the dean, with notification to the Vice President of Academic Affairs. Normally projects are for one unit. Independent study may be repeated for credit for a maximum of three units. Recommended projects of more than one unit must also have prior approval from the Vice President of Academic Affairs. Independent study is offered on a Pass/No Pass basis.

### Information Resource Use

The Rancho Santiago Community College District owns and operates a variety of information resources, including hardware, software, and Internet access. These information resources are provided solely for the use of RSCCD students, faculty, and staff in support of the education, research, academic development, and public service programs of RSCCD.

RSCCD information resources provide access to information content, and communication worldwide. Access to, and use of, these information resources is a privilege, which is to be used responsibly. RSCCD information resources users must respect the rights of other users, respect the integrity of the information resources, and observe all relevant RSCCD Board Policies, Administrative Regulations, and federal, state, and local laws. All students, faculty, and staff are responsible for seeing that these RSCCD information resources are used in an appropriate, effective, efficient, ethical, and lawful manner.

Administrative regulations establish rules and prohibitions that define acceptable use of RSCCD resources. Unacceptable use is prohibited, and is grounds for loss of use of information resources, as well as discipline or legal actions as provided for under RSCCD Board Policy and federal, state, and local laws.

### Open Courses

The policy of the Rancho Santiago Community College District and Santiago Canyon College is that, unless specifically exempted by statute or regulation, every course, course section, or class, reported for state aid, wherever offered and maintained by the college, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to regulations.
Every university has a limitation on the number of courses/units that can be taken for Pass/No Pass and applied to graduation and may require General Education taken Pass/No Pass to be retaken for a letter grade. Universities prefer that students have letter grades in English, mathematics, speech, and critical thinking courses. Courses that meet major requirements must be taken for a letter grade. Also, Pass/No Pass grades could have a negative effect on scholarships and international students. In addition, students who plan to pursue graduate or professional studies later are advised to be selective in opting for courses on a Pass/No Pass basis.

3. Except as in item number one above, a maximum of 6 Pass/No Pass units may be carried during any one semester.

4. A maximum of 12 Pass/No Pass units is allowed for any degree program. This does not include units taken under credit by examination or assessment, or in all Apprenticeship courses, Geology, Human Development, Real Estate, Women's Studies and Work Experience.

5. Pass/No Pass petitions are available at the Admissions and Records Offices. The Pass/No Pass petition must be signed by a counselor and be submitted between the first and fifth week of the fall and spring terms or thirty percent (30%) of the term, whichever is less. Pass/No Pass status cannot be changed back to a letter grade after the deadline has passed.

6. Pass indicates a “C” or better.

Course Prerequisites and Corequisites
Santiago Canyon College has adopted a policy on course prerequisites and corequisites in order to provide for the establishing, reviewing, and challenging of prerequisites and corequisites on recommended preparation, and certain limitations on enrollment in a manner consistent with law and good practice. The policy, which is specified for implementation as an administrative regulation, is established pursuant to regulations contained in section 55003 of Chapter 6 of Title 5 of California Code of Regulations. The RCCD Board of Trustees recognizes that if these prerequisites, corequisites and limitations are established unnecessarily or inappropriately they constitute unjustifiable obstacles to student access and success and, therefore, the board adopts this policy which calls for caution and careful scrutiny in establishing them. Nonetheless, the board also recognizes that it is important to have prerequisites in place where they are a vital factor in maintaining academic standards and in assuring the health and safety of students as it is to avoid establishing prerequisites where they are not needed. For these reasons, the board has sought to establish a policy that fosters the appropriate balance between these two concerns.

IMPORTANT DEFINITIONS
It is very important to understand the definitions of the terms Prerequisites and Corequisites. Note that prerequisites and corequisites may be challenged. See Prerequisite Challenge Policy, for more information.

PREREQUISITE indicates a condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program. A prerequisite represents a set of skills or a body of knowledge that a student must possess prior to enrollment and without which the student is highly unlikely to succeed in the course or program. Students will not be permitted to enroll in such courses and programs without the appropriate prerequisite. All prerequisite courses must be completed with a letter grade of “C” or better.

COREQUISITE indicates a condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course. A corequisite represents a set of skills or a body of knowledge that a student must acquire through concurrent enrollment in another course and without which the student is highly unlikely to succeed. Students must concurrently enroll in the corequisite course.

PREREQUISITE CHALLENGE POLICY AND PROCEDURES

COURSE PREREQUISITE POLICY
Prerequisite means the preparation or previous course work considered necessary for success in the course. The College requires students to complete prerequisites as pre-enrollment preparation. Prerequisites which are listed in the College Catalog include:

1) Courses for which specific prerequisites have been established,
2) Sequential course work in a degree-applicable program, and
3) Courses in which an equivalent prerequisite exists at a four-year transfer college or university.
Questions about prerequisites are best resolved with a counselor or instructor prior to the first day of class.

**PREREQUISITE CHALLENGE PROCESS**
A prerequisite challenge requires written documentation, explanation of alternative course work, and/or background or abilities which adequately prepare the student for the course. A Prerequisite Challenge Form can be obtained from the appropriate instructional office. Prerequisites may be challenged for one or more of the following reasons:

1) The college has not developed the prerequisite according to its established procedures or has not developed the prerequisite in accord with existing statutes.

2) The prerequisite is discriminatory or is being applied in a discriminatory fashion.

3) The college has not made the prerequisite course reasonably available.

4) The student has documented knowledge and abilities equivalent to those specified in the prerequisite course.

The challenge will be reviewed by a committee consisting of the dean, or designee, department chair, or designee, and one department or division representative or designee.

If space is available in a course when a student files a challenge to the prerequisite or corequisite, the district shall reserve a seat for the student and resolve the challenge in a timely manner. If no space is available in the course when a challenge is filed, the challenge shall be resolved prior to the beginning or registration for the next term and, if the challenge is upheld, the student shall be permitted to enroll if space is available when the student registers for that subsequent term.

**NOTE:** Students who are challenging a course which is a requirement for a degree or certificate may wish to use the Credit by Examination process to receive credit for the challenged course.

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**Prohibition—Dismissal**
A student’s academic standing is calculated and reviewed at the end of fall and spring semester, based only on their SCC/SAC cumulative GPA.

**Prostitution**

1. *Academic probation.* After attempting twelve or more units, a student is placed on probation when the SCC/SAC cumulative grade point average for all work attempted falls below 2.0.

2. *Progress probation.* A student who has enrolled in a total of twelve units will be placed on progress probation when the percentage of all units in which a student has enrolled and for which entries of “W”, “I”, and/or “NP” are recorded reaches or exceeds fifty percent.

**Academic Probation Intervention**

Students placed on academic probation are required to attend a counseling intervention workshop. An email notification is sent to the student and a registration hold is placed on the student record until completion of the workshop.

**Removal from Probation**

1. *Academic probation.* A student on academic probation for a grade point deficiency shall be removed from probation when the student’s SCC/SAC accumulated grade point average is 2.0 or higher.

2. *Progress probation.* A student on progress probation because of an excess of units for which entries of “W”, “I”, and “NP” are recorded shall be removed from probation when the percentage of units in this category drops below fifty percent.

**Subject to Dismissal**

Students may be given the academic standing of Subject to Dismissal after fall semester. However, the student is given the grace period of the spring semester to achieve a semester 2.0 GPA. If that is not achieved, the student is academically dismissed.

**Dismissal**

1. *Academic Dismissal.* A student who is on academic probation shall be dismissed if the student earned a SCC/ SAC cumulative grade point average of less than 1.75 in all units attempted in each of three consecutive semesters.

2. *Progress Dismissal.* A student who has been placed on progress probation shall be dismissed if the percentage of units in which the student has been enrolled for with entries of “W”, “I”, and “NP” are recorded in at least three consecutive semesters reaches or exceeds fifty percent.

3. *Reinstatement after Dismissal.* A student may initiate the process for reinstatement after dismissal by completing the Petition for Reinstatement form and submitting this form to Admissions. A student is reinstated when the last semester GPA is 2.0 or higher. When a student is academically dismissed, and the last semester GPA is less than 2.0, the student is denied reinstatement, and may not enroll at SCC or SAC for one semester before reapplying to either college. Denials can be appealed to the Exceptions to Academic Regulation Committee. Forms are available in Admissions.

**Exceptions to Academic Regulations Committee**

The purpose of this committee is to review petitions submitted by students who believe that an exception should be made to a current Santiago Canyon College academic policy. The process for students is to complete and submit a Petition for Exception to Academic Regulation. This petition can be obtained in the Counseling Department. The student must provide justification and documentation to support the petition. The committee will make a decision after review of the petition and students will be informed of this outcome in a timely manner.

**Remedial Course Limit**

A student may complete a maximum of 30 semester units of basic skills remedial courses. Remedial courses include non-degree or pre-collegiate basic skills classes in Math, English, Reading, Learning and Study Skills.

A waiver is required beyond 30 units. Students must show a “C” or better or a 2.0 GPA in remedial courses to qualify for a waiver. Waiver forms are available in Admissions and Counseling.

**Sexual Harassment Policy**

It is the policy of the Rancho Santiago Community College District to provide an educational, employment, and business environment free of unwelcome sexual advances, requests for sexual favors,
The Rancho Santiago Community College District forbids any form of sexual harassment. Prompt disciplinary action will be taken against any student or employee engaging in sexual harassment.

If you feel that you have been the victim of sexual harassment please contact the Human Resources Office, Vice Chancellor of Human Resources at 714-480-7489 (employees), or the Vice President of Student Services at 714-628-4884 (students).

**Sexual Violence Information**

In accordance with California State Law, Santiago Canyon College has the resources to assist and refer students who become victims of sexual violence. If you have been the victim of sexual violence either on or off-campus, immediate confidential care and counseling can be provided by the Student Health and Wellness Center, in Building T-102. Registered Nurses and Crisis Counselors are present and available to care for students during operating hours. When the Health Center is closed, contact Campus Safety and Security directly in Building U-100 or call 714-628-4730.

**Standards of Student Conduct**

Guidelines for Student Conduct are set forth in the California Education Code, California Administrative Code, Title V, policies of the Board of Trustees, and all civil and criminal codes. Students enrolling in district educational programs assume an obligation to obey state law and district rules and regulations governing the conduct of students.

Students who enroll in those instructional programs in which the college has affiliations with various outside associations must comply with the college’s policies and procedures and also with the outside associations’ policies and procedures. This includes but is not limited to students enrolled in the programs of Cosmetology, Fire Academies, Criminal Justice Academies and Nursing.

**GUIDELINES FOR STUDENT CONDUCT**

The following represent violations for disciplinary action, up to but not limited to expulsion, that may be taken:

A. Dishonesty, cheating, plagiarism, lying, or knowingly furnishing false information to the district or a college official performing their duties.

B. Forgery, alteration, or misuse of district documents, records, or identification.

C. Willful misconduct that results in damage to any real or personal property owned by the district or district employees (damage includes, but not limited to vandalism, such as cutting, defacing, breaking, etc.).

D. Obstruction or disruption of pedestrian or vehicular traffic or of teaching, research, administration, or of other district activities on or off District premises. This includes obstruction or disruption of administration, disciplinary procedures or authorized college activities.

E. Assault, battery, or any threat of force or violence upon a student, college personnel, or campus visitor; willful misconduct which results in injury or death to a student, college personnel, or campus visitor. This includes fighting on district property or at a district sponsored event, on or off district premises.

F. Detention of any person on district-owned or controlled property or at district-sponsored or supervised functions or other conduct which threatens or endangers the health or safety of another.

G. Theft of any property of the district which includes property of a member of the district community or a campus visitor.

H. Unauthorized entry into or unauthorized use of district property, supplies, equipment, and/or facilities.

I. Misrepresentation of oneself or of an organization to be an agent of the district.

J. Sexual assault or physical abuse, including rape, forced sodomy, forced oral copulation, rape by a foreign object, sexual battery, or threat or assault, or any conduct that threatens the health and safety of the alleged victim, which includes students, college personnel, or campus visitors.

K. Use, possession, distribution, or being under the influence of alcoholic beverage on district property or at any district sponsored event.

L. Use, possession, distribution, or being under the influence of narcotics, other hallucinogenic drugs or substances, or any poison classified as such by Schedule “D” in Section 4160 of the Business and Professions Code on District property or at any District-sponsored event except as expressly permitted by law.

M. Expression which is libelous, slanderous, obscene or which incites students so as to create a clear and present danger of commission of unlawful acts on district premises, or violation of district regulations, or the substantial disruption of the orderly operation of the college.

N. Engaging in lewd, indecent, or obscene behavior on district property or at any district-sponsored function.

O. Possession or use while on the district premises, or a district-sponsored function, of any firearm, knife, explosive, or other dangerous object, including but not limited to any facsimile firearm, knife or explosive. Exceptions include those participating in a criminal justice educational program who are authorized such possession or those who are enrolled in a course which authorizes such possession.

P. Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any district policy or administrative regulation.

Q. Engaging in harassing or discriminatory behavior based on race, sex (i.e., gender), religion, age, national origin, disability, sexual orientation or any other status protected by law.

R. Continuous disruptive behavior or willful disobedience, habitual profanity or vulgarity, open and persistent abuse of college personnel, or open and persistent defiance of the authority of college personnel, which includes physical as well as verbal abuse, including the use of racial epithets and hate speech;

S. Disruptive written or verbal communication, vulgarity, open and persistent abuse of other students which include verbal abuse, racial epithets and hate speech.

T. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the Board of Trustees;

U. Violation of the Computer Usage Policy is applicable to students using computer classrooms, computer labs, the wireless network or other locations on and off district property. A violation is considered any of the following:

(a) Accessing with or without permission, or causing to be accessed without authorization, altering, damaging,
deleteing, hacking, destroying, or otherwise using any data, computer, computer system, computer software and programs, or computer network belonging to or used by the college or any member of the District.

(b) Accessing with or without permission, taking, copying, or making use of any data from a computer, computer system, or computer network, or taking or copying any supporting documentation, whether existing or residing internal or external to a computer, computer system, or computer network belonging to or used by the college or District.

(c) Using or causing to be used, computer services without permission.

(d) Disrupting or causing the disruption of computer services or denying or causing the denial of computer services to an authorized user of a computer, computer system, or computer network belonging to or used by the college or District.

(e) Introducing any computer contaminant or virus into any computer, computer system, or computer network belonging to the college or District.

(f) Sending any message using any computer system or network without authorization or sending any message in the name of another person or entity.

(g) Using any account or password without authorization.

(h) Allowing or causing an account number or password to be used by any other person without authorization.

(i) Accessing or causing to be accessed, downloading or causing to be downloaded, pornographic or obscene materials except when accessing such material which is part of the instructional process or assignment for a class in which the student is currently enrolled.

(j) Use of systems or networks for personal commercial purposes.

(k) “Cyberstalking”, which is to be understood as any use of the college or district computer system, computer network, or computer programs to stalk another person via excessive communications, messages or inquiries, inappropriate or threatening messages, racially motivated communications, photos or other means of communication.

V. Any act constituting good cause for suspension or expulsion, or violation of district policies or campus regulations.

Standards of Conduct for Computer Classrooms and Computer Labs

In accordance with Board Policy 7000 and Administrative Regulation 7000 and in an effort to extend the life of the hardware, comply with the copyright laws, and adhere to appropriate computer network conduct and usage, the following standards of conduct are required of all students using computer classrooms, computer labs, and the wireless network.

Failure to comply with the following standards can result in the suspension of a student's privileges and possibly other sanctions such as removal from class, suspension, expulsion or other disciplinary actions.

The primary use of computer systems/resources is for academic/educational purposes. The following are NOT allowed:

1. Using the Internet to access sexually explicit and/or pornography websites.

2. Sending and receiving any messages that are threatening, racist or inflammatory, abusive towards a specific gender or culture, obscene, or use inappropriate language.

3. Using the network for personal or commercial advertising or political activity.

4. Using the computers or wireless network to play individual games, multiple-user games, or gambling.

5. Using the computer for illegal use.

The SCC Library, each computer lab, computer classroom, and science lab may have additional restrictions to those listed above. It is the student's responsibility to be aware of these additional guidelines.

Disciplinary Action

Violations to any tenets within the standards of student conduct are subject to a possible: warning, reprimand, probation, suspension or expulsion. Disciplinary actions may be imposed singly or in combination.

Study Load

In order to meet the graduation requirements in four semesters, students should carry an average of 15 units each semester. Students will ordinarily not be allowed to register for more than 18 units.

When individual circumstances may require additional unit demand, an overload program in excess of 18 units may be approved for students who have maintained a 3.0 G.P.A. Approval for such overloads may be secured from the counselors.

A summer session load should not exceed the equivalent of one unit per week or approximately nine units for an 8-week session. If over 9 units, an overload petition must be approved using the same criteria as above.

Transcripts

Students may obtain an official transcript of records by applying online or in person at the Admissions and Records Office at Santiago Canyon College. The first two counter transcripts will be issued without charge; thereafter, a $3.00 charge will be assessed for each additional mailed transcript. Express transcripts and all online transcripts are $8.00. Fed Ex Next Day Delivery is available for an additional fee of $16.50. All official transcripts are copies of the student’s permanent record in the Office of Admissions and Records at either college. Only records prepared and issued directly from that office will be considered official or certified for accuracy.

International Transcripts – Evaluation Practices

Santiago Canyon College may grant credit for college coursework completed outside of the United States. Students must submit their records to a Santiago Canyon College recognized evaluating agency, in order to obtain an equivalency/evaluation report (contact the Admissions Office or Counseling Department for listings of evaluating agencies). Once the Admissions Office at Santiago Canyon College receives the equivalency/evaluation report, an official evaluation will be conducted to determine course applicability.

The following guidelines apply to coursework completed outside of the United States.

• There is no transfer credit limit a student may be granted for coursework completed outside of the United States. However, Santiago Canyon College may only grant credit for lower-division classes.

• College credit may only be granted toward Santiago Canyon College associate degree and certificate programs.
• Coursework may not be used to fulfill the following General Education Requirements: English Composition, American Institutions, Reading, and Oral Communication.

• Courses intended to fulfill major requirements must be submitted to the major department for approval.

• Coursework may not be used to fulfill General Education Certification requirements for CSU-GE or IGETC (with the exception of Area 6 – Language Other Than English).

• Santiago Canyon College may not determine course transferability to other colleges and universities.

Students who have completed coursework outside of the United States are encouraged to meet with a counselor to determine course and program applicability.

Unit of Credit
Santiago Canyon College is on a semester system and awards college credit in semester-units.

A semester-unit of college credit represents 48 hours of student time. For a 16-week semester, this is generally three hours of work per week per unit. For example, semester-long lecture classes are generally one-hour per week in class and two-hours per week outside preparation. Semester-long laboratory classes are generally three hours per week in the laboratory with minimal outside preparation.

When equaling quarter-units to semester-units the ratio is: one quarter-unit equals two-thirds of a semester unit.

Withdrawal From Class
Students who cannot continue in a course have an obligation to withdraw officially. Students are encouraged to consult with instructors concerning class withdrawals.

Students may officially withdraw on the web through the last day of the 12th week of instruction (or 75 percent of the course, whichever is less and receive a transcript symbol of “W”).

All instructor-initiated “EA’s” (excessive absence drops) through the 12th week of 75 percent of a course, whichever is less will be assigned a “W”.

The academic record of a student who remains in a class beyond the time allowed by district policy must reflect a symbol other than a “W”, except under extenuating circumstances.

A student who has a withdrawal (grade of “W”) in the same course two or more times loses the privilege of online registration for that course and must receive the approval of the Director of Admissions or the Registrar to enroll in the same course.

(See also Repeatability of Courses.)

Extenuating Circumstances
Extenuating circumstances are verified cases of accidents, serious illnesses, or other circumstances clearly beyond the control of the student that occur after the withdrawal deadline (12th week). If such circumstances are verified by the Assistant Dean of Admissions at Santiago Canyon College, the student may be authorized to withdraw which shall be recorded as a “W” on the student’s permanent record.

A student who petitions under this policy shall have verified in writing that:

1. A passing grade (“C” or better), as verified by the instructor or division dean, was being maintained in the class at the time of the extenuating circumstance, and

2. The extenuating circumstance meets the criteria delineated above.

Students should file petitions as soon as possible within the semester in which the extenuating circumstance occurred. Petitions will NOT be accepted for consideration if the student has completed the coursework for the class and/or has taken the final examination. Also, petitions will NOT be accepted for consideration later than one year following the semester in which the extenuating circumstance occurred.

Smoking
Smoking is prohibited in all buildings at Rancho Santiago Community College District campuses and centers. In spring 2009, SCC became a smoke-free campus. Smoking is permitted only in designated areas in parking lots 1-6.

Drug Free Environment and Drug Prevention Program
The district shall be free from all drugs and from the unlawful possession, use or distribution of illicit drugs and alcohol by students and employees. The unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in all facilities under the control and use of the district. Any student or employee who violates this policy will be subject to disciplinary action, which may include referral to an appropriate rehabilitation program, suspension, demotion, expulsion or dismissal, and may also be subject to criminal sanctions including fines, jail, or prison sentences.

The RSCCD Chancellor shall assure that the district distributes information annually to students and employees as required by the Drug-Free Schools and Communities Act Amendments of 1989 and in compliance with other requirements of the Act. Please refer to Board Policy 3523 for specific information or contact the Health and Wellness Center at 714-628-4773.

Free Expression
Santiago Canyon College supports liberal policies regarding free speech for individual students, college staff, nonofficial college groups, and visiting speakers. Please refer to the Board policy on Free Expression (BP 5420) for specific information.

Publicity
Publicity for on-campus activities and organizations and off-campus advertisements must be cleared through the Facilities Office in A-204.
EDUCATIONAL OPTIONS

ASSOCIATE DEGREES

The Associate Degree is a certification of the student's satisfactory completion of a program of study with a specific major or area of specialization. The Associate Degree is normally completed in two years, compared with the Baccalaureate Degree, which is normally completed in four years.

Associate Degrees are commonly conferred by community colleges. They are usually of two types, the Associate in Arts and the Associate in Science. The distinction between the Associate in Arts and the Associate in Science degrees lies in the majors. If the major is in the fields of engineering, physical or biological science, or occupational curricula, the degree conferred is usually the Associate in Science. Otherwise the Associate in Arts degree is conferred.

Ordinarily Associate Degrees have one of two major purposes. Either the program of study prepares the individual for transfer to a four-year college or university or the program of study is intended to prepare the student for immediate employment.

The requirements for the Associate Degree include the specific courses in the major and what is called a general education or breadth requirement. A minimum of twelve units must be completed at Santiago Canyon College with at least six units in the major. The specific details concerning the major requirements are described in the catalog section on College Credit Instructional Programs starting on page 41.

The general education coursework required for the associate degree at Santiago Canyon College is listed on page 32 (Plan A).

Completion of the general education pattern for the California State University listed on page 39 (Plan B) or the Intersegmental Transfer Curriculum "IGETC" listed on page 40 (Plan C) also fulfill the general education requirements for the Santiago Canyon College Associate Degree.

Information on academic honors at graduation is listed on page 21.

CERTIFICATE OF ACHIEVEMENT PROGRAMS

A certificate of achievement (18 or more units or state approved under 18 units) is a verification of achievement in a particular academic or occupational area, and it will be included on the official transcript. Certificate of Achievement programs normally include only those courses which have a direct bearing upon specialized occupational competency since the certificate of achievement has the sole objective of immediate employment in a specialized area. For this reason there is no general education requirement in a certificate of achievement program.

Santiago Canyon College certificate of achievement programs are described in the catalog section on College Credit Instructional Programs. To qualify for a certificate of achievement, a candidate must meet the following requirements:

1. Courses: Courses are designated for the specific certificate.

2. Grades: At least a C grade in each course required for the certificate, unless otherwise specified. Credit by Examination may also be used to gain credit for required courses.

3. Pass/No Pass: A Pass/No Pass course is acceptable toward the certificate if it is required for the certificate and (a) offered on a Pass/No Pass basis only or (b) if the Pass/No Pass is earned on the basis of credit by examination.

4. Residency: Twelve units completed at Santiago Canyon College. (Six units of major requirements must be completed at Santiago Canyon College.)

5. Petition: Petition for certificate filed by the student with the Office of Admissions and Records at Santiago Canyon College.

Certifies Programs

A certificate is under 18 units and/or is not a state approved program. A certificate is verification of completion in a particular subject matter. A certificate will NOT be included on the official transcript. Certificate programs include only those courses which focus on vocational skills. The certificate has the sole objective of employment in a specialized area and for this reason there are no general education requirements in a certificate program.

Santiago Canyon College certificate programs are described in the catalog section on College Credit Instructional Programs.

All Associate Degrees and Certificates of Achievement will have a unique identification code in parentheses next to them in the College Credit Instructional Programs Section. Any certificates that do not have a unique identification code will not appear on your transcript.
**Certificate and Associate Degree Programs at Santiago Canyon College (SCC)**

D = AA/AS Degree*
CA = Certificate of Achievement*
C = Certificate

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* Successful completion of these programs will appear on your transcript.

** See current catalog descriptions for options under these titles.

Certificate indicated with a C will not appear on the transcript.
GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE • PLAN A 2011–2012

PHILOSOPHY

General Education requirements at Santiago Canyon College reflect the conviction that those who receive degrees must possess in common certain basic principles, concepts, and methodologies, both unique to and shared by various disciplines. General Education prepares the college student to comprehend and contribute to the modern world, to understand our regional, national, and international cultural diversity as well as our shared cultural heritage, to reinforce an awareness of self as well as others, and to instill an ongoing intellectual curiosity and commitment to learning.

The subject matter of General Education courses is designed to be general, broad and introductory rather than specialized, narrow, or advanced. General Education courses form a pattern of learning experiences designed to provide educational opportunities that lead to the following outcomes for students:

Think—Critically, Creatively, and Reflectively
- Critically analyze, evaluate, organize and use quantitative and qualitative data to solve problems and develop logical models, hypotheses and beliefs.
- Creatively use concepts to making learning relevant.
- Reflectively assess one’s values, assumptions, and attitudes.

Learn—About Self and Others, Academic and Professional Issues
- Take responsibility for one’s own learning and wellbeing.
- Learn about one’s chosen academic major, while creating connections across disciplines.
- Learn about professional conduct, including workplace and community ethics, conflict management, and teamwork.

Communicate—With Clarity and Accuracy and in Diverse Environments
- Communicate ideas in a clear and articulate manner.
- Communicate accurately to diverse audiences.
- Communicate in various formats using diverse technologies.

Act—With Awareness of Self and the Local and Global Community of Persons
- Act to maintain one’s dignity and self-respect.
- Act as a responsible community member who treats others with respect, civility, empathy, honesty and dignity.
- Act to increase the wellbeing of the global community by maintaining cultural literacy, lifelong learning, ethical consideration of each other, and the environment we all share.

A. Natural Sciences
Courses in the natural sciences examine the physical universe, its life forms, and its natural phenomena. They assist in developing an appreciation and understanding of the scientific method and encourage an understanding of the relationships between science and other human activities. This category includes introductory or integrative courses in astronomy, biology, chemistry, general physical science, geology, physics, physical geography, physical anthropology, and other scientific disciplines.

B. Social and Behavioral Sciences
Courses in the social and behavioral sciences focus on people as members of society. They assist in developing an awareness of the methods of inquiry used by the social and behavioral sciences. Critical thinking is stimulated about the ways people act and have acted in response to their societies, and appreciation is developed of how societies and social groups operate. This category includes introductory or integrative survey courses in cultural anthropology, economics, history, political science, psychology, sociology, cultural geography, and related disciplines.

C. Humanities
Courses in humanities study the cultural activities and artistic expressions of human beings. They assist in developing an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them in artistic and cultural creation, and in developing aesthetic understanding and an ability to make value judgments. This category includes introductory or integrative courses in the arts, foreign languages, literature, philosophy and religion.

D. Cultural Breadth
Courses meeting the cultural breadth requirement represent both global and national perspectives and recognize the value of systemic historical and cross-cultural examinations of race, ethnicity, gender, and global issues. Courses meeting this requirement can be identified in two areas.

1. Ethnic Studies/Women’s Studies
Courses meeting the Ethnic Studies/Women’s studies requirement focus on the cultural perspectives of the African American, the Asian American, the Chicano/Latino, and the Native American and women in the United States. They assist students to deal constructively with issues of difficult differences and to develop respect for and become aware of the views, interactions, and contributions of these ethnic groups and women to U.S. society and culture. This category is interdisciplinary and includes introductory courses that incorporate the voices of these historically excluded groups.

2. International Perspective
Courses in International Perspective include an emphasis on global perspectives in a cultural context. All courses need to address not just specific aspects of culture but also a component addressing the basic concepts of culture including how culture influences environment, behavior, structure, and function of society. These courses also include a multi-country perspective.

E. Language and Rationality
Courses in language and rationality develop the principles and applications of language toward logical thought, clear and precise expression and critical evaluation of communication in whatever symbol system the student uses.

F. Lifelong Understanding and Self-Development
The courses in this category are designed to equip human beings for lifelong understanding and development of themselves as integrated physiological and psychological entities. In a social context, students will benefit from study about themselves and how they function at different stages of life. Instruction is intended to include consideration of such matters as human behavior, sexuality, nutrition, health, stress, key relationships of humankind to the social and physical environment, and implications of death and dying. Physical activity courses could be included, provided that they include some components of the above listed topics.
ASSOCIATE DEGREE REQUIREMENTS • 2011–2012

I. Unit and Residency Requirements

60 UNITS, with at least a 2.0 grade point average. At least 12 of the units must be earned at the college and at least 6 of those units must be in courses required for the major. Units earned at an accredited college or university on a Pass/No Pass basis will be counted toward the degree requirements of the college, to a maximum of 15 units.

II. General Education Requirements

24 semester units of general education which include one course or more as indicated in group requirements A, B, C, D, E, and F. NOTE: See Plan A, on the next page for specific course requirements. A single course may be used to meet only one category requirement.

A course may be used to satisfy a major requirement and meet a general education category requirement (A-F).

Non degree applicable courses may not be used for graduation requirements.

IMPORTANT NOTE: The list of courses will be subject to change year by year, but students are assured that courses taken to meet General Education requirements will be honored if they are approved for the academic year in which they are taken. Courses on this list are approved beginning Fall 2011 and are valid through Summer 2012.

NOTE: The requirements in parts II, IV, V and VI also may be met by CSU general education certification, IGETC certification, or by submitting a transcript showing completion of a bachelor’s degree from an accredited institution, or by submitting a transcript showing completion of an Associate of Arts or Associate of Science degree from an accredited California institution within a ten-year period of finishing major requirements (III) at the college.

III. Major Requirements

Each degree and certificate program specifies courses required for the major (a minimum of 18 units). Students must complete these courses with a grade of C or better. See Instructional Programs Section.

IV. Required Proficiencies

NOTE: The proficiencies and requirements listed in IV. Required Proficiencies, V. Oral Communication Requirement and VI. Computer Skills and Applications Requirement may also be used to meet General Education Requirements in groups A through F where appropriate. Courses taken to meet these proficiencies must be completed with a grade of C or better.

A. Reading

1. Satisfactory score on the reading skills portion of the SCC/SAC Reading Placement Instrument, OR

2. Successful completion of any reading course at the 100 level, OR

3. A “C” grade, or better in 9 units of general education courses for the Associate Degree in Areas A (Natural Sciences) - 3 units; B (Social and Behavioral Sciences) - 3 units each in B1 and B2.

B. Mathematics

1. Completion of Mathematics 080 or 081 or any other 3 unit mathematics course numbered above the level of 080, OR

2. Score on the RSCCD mathematics placement test indicating placement in a mathematics course numbered above the level of 080.

V. Oral Communication Requirement

Completion of 3 units with a grade of “C” or better from the following: Communication 100 or 100H (Interpersonal Communication), Communication 101 (Group Dynamics), Communication 110 (Public Speaking), Communication 111 (Argumentation and Debate), Communication 134 (Oral Interpretation).

VI. Computer Skills and Applications Requirement

Courses meeting the computer skills and applications requirement include the theories and concepts of computer technology and/or the applied technology of computers in various disciplines. Such courses will either focus on computer technology as a discipline or will focus on computer application programs as a major component of the course. This requirement is met by completing one of the following:

A. Completion of one of the following courses with a grade of C or better:

   Art 195
   Business 150
   Computer Information Systems 101
   Computer Science 100

B. Students may challenge courses under “A” above, through Credit by Examination. Students should plan to schedule a credit by examination test at least one semester prior to anticipated graduation. This will allow students to enroll in a course if the exam is not passed.

Students are to follow the Credit by Examination procedure listed in the catalog.

NOTE: Schedules for proficiency examinations are announced each semester in the Schedule of Classes. Applicants must be currently enrolled or completing graduation requirements in order to take the proficiency examinations. Students who do not achieve a satisfactory score on the English Writing Proficiency Examination may not challenge that examination but must satisfactorily complete an approved course as listed in the graduation requirements.

PETITION FOR GRADUATION AND CATALOG RIGHTS:

Petitions for graduation should be filed in the Office of Admissions and Records at Santiago Canyon College when a student has completed 30 units or at least one semester before the student expects to graduate. Students who maintain continuous enrollment have the option to meet the associate degree or certificate of achievement requirements as listed in the catalog in effect at the time of first enrollment or any subsequent year. Continuous enrollment is defined as completing at least one course each catalog year (fall, spring, summer) at Santiago Canyon College or Santa Ana College. Completion of a course is determined by a letter grade or with one of the following notations: W, NP, P, IC. A student who has an interruption of attendance must use the catalog at the time of readmission or one of subsequent continuous enrollment.

Commencement

Commencement is held once a year at the end of the spring semester for those students who complete the requirements for graduation during the year or the summer session. Student must submit a Petition to Graduate to participate in commencement.

NOTE: Transcripts from all colleges attended must be on file.
REQUiRED PRoFiCiENCIES/REQuiREMENTS

NOTE: See previous page, IV. Required Proficiencies, and Requirements V and VI for specific requirements for the following:

IV. A. Reading Proficiency
B. Mathematics Proficiency
V. Oral Communication Requirement
VI. Computer Skills and Applications Requirement

Courses taken to meet these proficiencies/requirements must be completed with a grade of “C” or better.

NOTE: A single course may be used to meet only one category requirement (A-F) in Section II. However, a course may be used to meet both a required proficiency (IV) or requirement (V or VI), as well as one of the categories of General Education Courses on Plan A (II).

Courses which meet the requirements for part II of Plan A at Santa Ana College will automatically meet the identical requirements for part II of Plan A at Santiago Canyon College.

II. Required General Education Courses – Plan A

A. Natural Sciences
(3 units are required)
   Anthropology 101
   Astronomy 109, 110, 112, 140
   Biology 109 or 109H, 109L, 139, 149, 177, 200, 211, 229, 239, 259
   Chemistry 119, 209, 210, 219
   Earth Science 110, 115
   Environmental Studies 200, 259
   Geography 101
   Geology 101, 101L, 142, 150, 201
   Physical Science 115
   Physics 109, 210, 217, 279

B. Social and Behavioral Sciences
(6 units are required)
   Select one course from B1 and one course from B2.

B1. American Institutions
   History 118, 120 or 120H, 121 or 121H, 122
   Political Science 101 or 101H

B2. Social Science Elective
   Anthropology 100 or 100H
   Criminal Justice 101
   Economics 120, 121
   Geography 100 or 100H, 102
   History 101 or 101H, 102 or 102H
   Human Development 107, 110
   Political Science 101 or 101H, 226, 230
   Psychology 100 or 100H
   Sociology 100 or 100H

C. Humanities
(3 units are required)
   Anthropology 104
   Art 100 or 100H, 101, 102, 110
   Dance 100
   Foreign Language:
      French 101, 102, 194, 196, 201, 202
      Italian 101, 102, 194, 195, 201, 202
      Spanish 101 or 101H or 101A & 101B, 102 or 102H, 194, 195A, 195B, 201, 202, 213
   Literature:
      Music 101 or 101H, 102
      Philosophy 106 or 106H, 108, 112, 115, 118, 120
      Sign Language 110, 111, 112, 116
      Television/Video Communications 101, 103, 104, 105
      Theatre Arts 100, 103, 104

D. Cultural Breadth
(3 units are required)
   Anthropology 100 or 100H, 104
   Business 106
   Chicano Studies 101
   Communication 120 or 120H, 225 or 225H
   English 246, 271, 272, 278
   Ethnic Studies 101
   Exercise Science 109, 110
   Geography 100 or 100H, 102
   History 124, 127, 152, 162
   Human Development 221
   Music 102, 103
   Philosophy 112
   Psychology 170
   Sign Language 116
   Women’s Studies 101, 102, 201

E. Language and Rationality
(6 units are required)
   Select one course from E1 and one course from E2.

E1. English Composition
   English 101 or 101H with a grade of “C” or better.

E2. Communication and Analytical Thinking
   Includes mathematics, logic, statistics, computer languages and programming and related disciplines.
   Communication 101, 110, 111
   Computer Science 100 or 100H, 105, 111
   Counseling 144
   English 103 or 103H
   Mathematics 080, 081, 105, 140, 145, 150, 160, 170, 180 or 180H, 185, 219 or 219H, 280, 287, 290, 295
   Philosophy 110 or 110H, 111, 144
   Reading 102, 150
   Social Science 219 or 219H

F. Lifelong Understanding and Self-Development
(3 units are required)
   Select one course from F1 and one course from F2.
   No more than one unit may be counted from F2.

F1: Business 130
   Communication 102
   Counseling 101, 113, 116, 125
   Exercise Science 100, 102, 110, 111, 112
   Interdisciplinary Studies 155
   Library & Information Studies 100
   Mathematics 030
   Nutrition & Food 115
   Philosophy 111
   Psychology 230
   Reading 097
   Sociology 112

F2: Exercise Science 115–289 excluding 134, 136, 275, 285
TRANSFER TO OTHER COLLEGES

Transfer Center

The Transfer Center provides resources and services to assist students who are preparing to transfer to four-year colleges or universities. The Transfer Center sponsors various events throughout the year, including tours to universities, university representative advising appointments, transfer fairs, and a variety of workshops to help students with each step in the transfer process. In addition, the Transfer Center provides many useful resources such as; Facebook and Twitter feeds, a comprehensive web site, email updates, university catalogs and guidebooks, computers with Internet access, and expert advice from trained specialists and counselors with walk-in and appointment service available. For more information, stop by D-104-N, call 714-628-4865, or visit www.sccollege.edu/transfer.

Transferability of Courses

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 and general education requirements.

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

Four-year colleges and universities often make changes in their requirements. The requirements listed in this section were updated at the time of publication; however, changes may have occurred after publication. Current transfer information and official articulation agreements are available in the Transfer Center and the Counseling Center at Santiago Canyon College. Agreements are also available at www.assist.org.

There are four segments of higher education in California. They are: a) the University of California (UC) system with 10 campuses; b) the California State University (CSU) system with 23 campuses; c) the 120 accredited independent colleges and universities; and, d) the 112 California community colleges.

Santiago Canyon College provides the first two years of a four-year college or university program.

Santiago Canyon College offers courses to meet general education, major or elective requirements. Students can transfer a maximum of 70 units to a UC or CSU campus.

All courses numbered 100 or above will transfer to a CALIFORNIA STATE UNIVERSITY campus. Courses which are transferable to the UNIVERSITY OF CALIFORNIA will be designated on the UC Transferable Course Agreement, which can be found on page 41. Some of the courses which are transferable to the University of California have credit limitations. Check the UC Transferable Course Agreement to review these limitations. This list is available in the Counseling Center, Transfer Center, in this catalog, and at www.assist.org.

Independent and out-of-state colleges and universities usually accept most courses that are transferable to the University of California and many of the courses that are transferable to the California State University.

Begin a Transfer Major at Santiago Canyon College

To obtain a bachelor's degree, students need to select a subject area in which to specialize. This subject area is called a major. Almost every major requires that certain courses be completed during the first and/or second year of college. These are called Lower-Division Major Requirements. Many of these requirements can be completed at SCC prior to transferring. (The highly specific courses in the major are called Upper-Division Requirements and these are completed after transfer.) In developing a program for transfer, first consideration in most cases should be given to completing the courses required in the transfer major or as preparation for the major.

Course Requirements for Transfer Students

A student can transfer from Santiago Canyon 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.
   Most majors at four-year colleges and universities require the completion of one or more lower-division courses as preparation for the upper-division course work in a major. Santiago Canyon College offers courses to meet the lower-division requirements for most majors at four-year colleges and universities. Information about many specific major requirements is available in the Counseling and Transfer Center, or at www.assist.org. Students should meet with a counselor for additional information about major programs and requirements.

2. General Education Requirements.
   These are the courses required of students 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 courses of choice taken in addition to courses for the major and general education requirements.

Students enrolled in a transfer program can 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 Santiago Canyon College counselor in the Counseling Center to develop a Student Educational Plan which will identify the courses needed to transfer.

Transfer students may also want to complete an associate degree. While not a requirement for transfer, the associate degree is generally recommended, and proper planning should enable students to satisfy both requirements for graduation from SCC and for transfer.

California State University

The 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 occupational goals as well as a broad liberal education. The CSU offers more than 1,800 bachelor's and master's degrees in some 240 subject areas. Campuses are located at Bakersfield, Channel Islands, Chico, Dominguez Hills, East Bay, 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).
To obtain a bachelor’s degree from the CSU system, a student must complete a minimum of 120 semester units (180 quarter units). A maximum of 70 units of transferable credit will be accepted for courses completed at a community college.

Prospective CSU transfer students should consult a counselor regarding CSU admission, as requirements vary depending upon the student’s status at the time of high school graduation.

California State University Admissions Requirements for Transfer Students

Upper-Division Transfer

Students are eligible for upper-division transfer if they complete at least 60 transferable semester (90 quarter) units and if they:

1. Earn a college grade point average of 2.0 (C) or better (2.4 for non-California residents) in all transferable units attempted.
2. Are in good standing at the last college or university attended (eligible to enroll).
3. Have completed or will complete prior to transfer at least 30 semester (45 quarter) units of college courses equivalent general education requirements with a grade of “C” or better. The 30 semester (45 quarter) units must include all of the general education requirements in:
   • Communication in the English Language and Critical Thinking (at least 9 semester or 12 quarter units to include written communication, oral communication, and critical thinking) and Mathematics (at least 3 semester or 4 quarter units)
   OR
   • If completing the Intersegmental General Education Transfer Curriculum (Plan C), English composition (at least 9 semester or 12 quarter units in English composition, oral communication, and critical thinking) and the mathematics requirement (at least 3 semester or 4 quarter units).

NOTE: Some CSU campuses may impose a higher GPA admission standard based on impacted major or impacted campus status.

Lower-Division Transfer

A student may be eligible for lower-division transfer (completion of less than 60 units) if the student has completed all admission requirements required for first-time freshmen. Some CSU campuses may also require completion of general education classes in math and English, with a “C” or better prior to admission. If the student did not complete all the subject requirements in high school, appropriate college courses may be used to make up the missing subjects. Many CSU campuses will not accept lower-division transfer students. Please see a Santiago Canyon College counselor for more information.

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. Santiago Canyon College offers 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 CSU General Education Breadth Requirements (Plan B) or the Intersegmental General Education Transfer Curriculum (Plan C).

Plan B

CSU General Education Breadth Requirements

See page 39 of the Catalog for specific courses which meet these requirements.

A. COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING – 9 units

B. THE PHYSICAL UNIVERSE AND ITS LIFE FORMS – 9 units

C. ARTS, LITERATURE, PHILOSOPHY, FOREIGN LANGUAGE – 9 units

D. SOCIAL POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR; HISTORICAL BACKGROUND – 9 units

E. LIFELONG UNDERSTANDING AND SELF DEVELOPMENT – 3 units

All California State Universities have a graduation requirement in U.S. History, Constitution, and American Ideals. This requirement can be satisfied before or after transfer to a CSU by taking coursework in three areas US-1, US-2, and US-3. A student must take one course from each of the three areas. A student may use the same course to satisfy more than one area (US-1, US-2, US-3) if applicable. At the discretion of the CSU campus granting the degree, courses meeting this requirement may also be counted toward certification in general education.

US-1: Historical Development of American Institution and Ideals:
   History 118, 120, 120H, 121, 121H, 122, 124, 127

US-2: U.S. Constitution & Government:
   Political Science 101, 101H

US-3: California State & Local Government:
   Political Science 101, 101H, 226

Students who complete Plan B are eligible to receive a Certificate of Achievement in General Education (CSU).

University of California

The University of California has ten 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.

To obtain a baccalaureate degree from the UC system, a student must complete a minimum of 120 semester units (180 quarter units). A maximum of 70 units of transferable credit will be accepted for courses completed at a community college.

University of California Admissions Requirements for Transfer Students

Upper-Division Transfer

The vast majority of transfer students enter the University of California at the junior level from a community college. To be eligible for admission as a junior or upper-division transfer student, a student must fulfill both of the following criteria:

1. Complete 60 semester or 90 quarter units of transferable college credit with a grade point average of at least 2.4, and
2. Complete the following course pattern, earning a grade of C or better in each course:

- Two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
- One transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning; and
- 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.

Students who satisfy the Intersegmental General Education Transfer Curriculum (Plan C) prior to transferring to UC will satisfy section 2 of the transfer admission requirements.

Lower-Division Transfer

The University of California admits some transfer students before they reach junior or upper-division standing, if they have met specific requirements. Lower-Division transfer admission decisions vary by UC campus, and it is not a common policy for many UC campuses. If a student were to be admitted as a lower-division transfer at a UC campus the following criteria would apply:

If a student was eligible for admission to the University of California when he or she graduated from high school—meaning the student fulfilled the Subject, Scholarship, and Examination Requirements, or was identified by the University of California as eligible in the local context and completed the Subject examination requirements in the senior year, the student is eligible for transfer if he or she has a C (2.0) average in transferable college work.

If a student met the Scholarship Requirement in high school but did not satisfy the Subject requirement, the student must take transferable college courses in the missing subjects, earn a “C” or better in each required course and maintain an overall 2.0 GPA in all transferable coursework to be eligible to transfer.

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 (Plan C) or individual campus general education requirements. Santiago Canyon College strongly recommends that students follow the IGETC rather than the individual campus requirements because this will usually provide more flexibility when applying for transfer. However, some UC campuses may discourage or restrict the use of IGETC for particular majors, especially majors that have many lower-division requirements that can be met at the community college. Students who began at a UC campus and who intend to transfer back to the same campus cannot use IGETC. Students, who enrolled at a UC campus, leave that campus and attend Santiago Canyon College, and plan on transferring to a different UC campus may use the IGETC. Students are strongly encouraged to work with a Santiago Canyon College Counselor to develop an education plan that incorporates major preparation and appropriate general education requirements.

Plan C

Intersegmental General Education Transfer Curriculum (IGETC) for CSU And UC

See page 40 of the Catalog for specific courses which meet these requirements.

1. ENGLISH COMMUNICATION – 9 units (CSU)
   ENGLISH COMMUNICATION – 6 units (UC)
2. MATHEMATICAL CONCEPTS – 3 units
   (CSU and UC)
3. ARTS AND HUMANITIES – 9 units
   (CSU and UC)
4. SOCIAL AND BEHAVIORAL SCIENCE – 9 units (CSU and UC)
5. PHYSICAL AND BIOLOGICAL SCIENCES – 7-9 units (CSU and UC)
6. LANGUAGE OTHER THAN ENGLISH – 0-5 units (UC)

California State University also has an American Institutions requirement which can be satisfied prior to transfer by taking Political Science 101 and an approved American History course in Area 4.

Completion of these courses is advised for students, completing the IGETC pattern, and transferring to a CSU campus. See page 36 for specific details.

Students following the IGETC pattern (Plan C) are strongly advised to complete all requirements prior to transfer. Completion of the pattern allows the student to become certified, which means the student has met all lower-division general education requirements. Partial certification is permitted if a student has completed all but two (2) courses on the IGETC pattern. Specific rules apply to how and when the remaining courses must be completed after transfer. Please see a Santiago Canyon College Counselor for guidelines.

Students who complete Plan C are eligible to receive a Certificate of Achievement in General Education (IGETC).

Certification of General Education for Transfer to UC or CSU

Upon a student’s request Santiago Canyon College will verify the completion of lower-division general education requirements for transfer to the University of California (Intersegmental General Education Transfer Curriculum, Plan C) or the California State University (either the CSU General Education Breadth Requirements or the Intersegmental General Education Transfer Curriculum, Plan B or Plan C). 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.

Students who have taken courses at other colleges can have these courses used in the certification process. Using the Intersegmental General Education Transfer Curriculum, or CSU General Education Breadth, Santiago Canyon College will certify (guarantee) courses taken at other California community colleges in the areas designated by the offering college. Courses taken at regionally accredited private institutions will be certified for IGETC if they are equivalent to courses on the Santiago Canyon College or another California community college’s IGETC pattern. Courses will be certified for CSU General Education Breadth if they are equivalent to courses on the Santiago Canyon College certified pattern or if they are approved as comparable to other CSU GE certified courses. Courses from...
foreign institutions cannot be used in the certification process.

Students should request IGETC certification from the last California Community College they attend prior to transfer to UC or CSU.

Students requesting CSU GE Breadth certification must complete at least 12 units at Santiago Canyon College.

NOTE: Transcripts from all colleges attended must be submitted to the Admission Office prior to requesting certification.

Independent and Out-Of-State Colleges 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 to which Santiago Canyon College students can transfer. Each of these institutions has its own unique requirements for admission. In order to determine eligibility, students should visit the website of the university to view admission requirements or obtain a copy of the university catalog.

Santiago Canyon College has articulated general education requirements and major preparation courses with a number of independent institutions such as Chapman University, The University of San Diego, and the University of Southern California. Students transferring to independent or out-of-state institutions should meet with a Santiago Canyon College counselor in order to determine appropriate general education and major preparation requirements.

California’s fully-accredited independent colleges and universities provide many options at the undergraduate, graduate, and professional levels for students planning to continue their education beyond the community college. For a complete listing of independent colleges and universities in California, please visit www.aiiccuc.edu or the Santiago Canyon College transfer website at www.sccollege.edu/transfer.
Students planning to graduate from one of the 23 campuses of the California State University must complete 48 semester units in general education breadth courses. Upon request Santiago Canyon College will verify the completion (certify) of up to 29 units of lower-division general education requirements. Nine semester units of general education units must be completed at the upper-division level after transfer. Students are strongly encouraged to meet with a Santiago Canyon College counselor when planning to transfer to a CSU campus.

**IMPORTANT NOTE:** The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet General Education-Breadth requirements will be honored if they are approved for the academic year in which they are taken. Courses on this list are approved beginning Fall 2011 and are valid through Summer 2012.

**A. Communication in the English Language and Critical Thinking (minimum 9 units)**

The 9 units selected from this area must include at least one course from A1, A2, and A3. Each course must be completed with a grade of “C” or better. (C minus is not acceptable.)

- **A1:** Oral Communication
  - Communication 100/100H, 101, 110, 111
- **A2:** Written Communication
  - English 101/101H
- **A3:** Critical Thinking
  - Communication 111
  - Counseling 144
  - English 103/103H
  - Philosophy 110/110H, 111, 114
  - Reading 150

**B. The Physical Universe and Its Life Forms (minimum 9 units)**

The 9 units selected from this area must include at least one course from B1, B2, and B4. The 9 units must also include a corresponding lab component. (Lab classes are in bold.) Courses in B4 must be completed with a grade of “C” or better. (C minus is not acceptable.)

- **B1:** Physical Sciences
  - Astronomy 109, 110, 112, 140
  - Chemistry 119, 209, 210, 219
  - Earth Science 110, 115
  - Geography 101
  - Geology 101, 101L, 150, 201
  - Physical Science 115
  - Physics 109, 210, 211, 217, 279
- **B2:** Life Science
  - Anthropology 101
  - Biology 109/109H, 109L, 139, 149, 177, 211, 212, 214, 229, 239, 259
  - Environmental Studies 259
- **B3:** Laboratory Activity
  - One course from B1 or B2 above must have a corresponding lab. Lab courses are listed in bold.
- **B4:** Mathematics/Quantitative Reasoning
  - Social Science 218/219H

**C. Arts, Literature, Philosophy, and Foreign Language (minimum 9 units)**

This area must include one course from C1 and one course from C2.

- **C1:** Arts (Art, Dance, Music, Theatre)
  - Art 100/100H, 101, 102
  - Dance 100
  - English 233A*, 233B*
  - Music 101/101H, 102, 103, 104
  - Television/Video Communications 103, 104
  - Theatre Arts 100, 101, 103, 104

- **C2:** Humanities
  - French 101, 102, 194, 196, 201, 202
  - History 101/101H, 102/102H, 152, 162
  - Italian 101, 102, 194, 195, 201, 202
  - Sign Language 110, 111, 112, 116

*Both courses must be completed for C2 credit.*

**NOTE:** The United States History, Constitution and American Ideals CSU graduation requirement may be met by completing Political Science 101/101H and one U.S. History course from the following: History 118, 120/120H, 121/121H, 122, 124, 127. These courses (in bold below) may also be used to meet 6 of the 9 units required for Area D.

- **D1:** Anthropology and Archeology
  - Anthropology 101
  - History 127*
  - Sociology 112*
  - Psychology 170

- **D2:** Economics
  - Economics 120, 121

- **D3:** Ethnic Studies
  - Chicano Studies 101
  - Chicano Studies 101
  - History 124*
  - Sociology 240

- **D4:** Gender Studies
  - Communication 225/225H
  - English 278*
  - History 127*
  - Political Science 221

- **D5:** Geography
  - Geography 100/100H, 102

- **D6:** History
  - History 101/101H*, 102/102H*, 118, 120/120H, 121/121H, 122, 124*, 127*, 133, 152, 162
  - (No credit for History 122 if taken after History 120/120H or 121/121H.)

- **D7:** Interdisciplinary Social or Behavioral Science
  - Chicano Studies 101
  - Communication 120/120H
  - Counseling 150
  - Exercise Science 109
  - Human Development 107*, 110
  - Interdisciplinary Studies 155*
  - Television/Video Communications 105

**D8:** Political Science, Government, and Legal Institutions

- Political Science 101/101H, 200/200H, 201, 220, 221, 226, 230

**D9:** Psychology

- Human Development 107*
- Psychology 100/100H, 157*, 170, 200, 219, 230*, 240, 250
- Sociology 240

**D10:** Sociology and Criminology

- Criminal Justice 101
- Sociology 100/100H, 112*, 140/140H

**E. Lifelong Understanding and Self-Development (minimum 3 units)**

Only one unit from E2 can be used to satisfy Area E.

- **E1:** Communication
  - Communication 102
  - Counseling 101 (F ’07), 116, 125
  - Exercise Science 100, 102, 110, 111, 112
- **E2:** Exercise Science 115–289 (Excluding 134, 136, 139, 173, 175, 275, 285)

**CERTIFICATION REQUIREMENTS**

1. No more than 30 semester units may be certified for areas B through D combined.
2. Pass/No Pass grades are accepted for certification in all areas. However, letter grades may be recommended or required for specific courses in a given major. Each CSU campus may also limit the total number of units graded Pass.
3. Grades of “C-” earned in Areas A1, A2, A3, and B4 will not be certified.
4. A single course may not meet more than one general education requirement.
5. Certification of coursework from other colleges will only be granted to students who have completed a minimum of 12 units at Santiago Canyon College.
6. Courses taken at other California Community Colleges will be applied to the subject areas in which they were listed by the institution where the course was completed.
7. Courses taken at other regionally accredited private institutions (which do not maintain a CSU certification list) may be approved for certification after a review by the Santiago Canyon College Articulation Office. Courses completed at foreign institutions are not acceptable for certification. Petitions are available from the Santiago Canyon College Counseling Department and must be accompanied by the appropriate documentation.
8. Requests for certification should be made during the semester prior to the last term of attendance. Please consult the class schedule or the Admissions website at www.sccollege.edu or the Santiago Canyon College Counseling Department for deadline information.

*Courses may be listed in more than one area but will not be certified in more than one area.*
INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) FOR THE UNIVERSITY OF CALIFORNIA (UC) AND THE CALIFORNIA STATE UNIVERSITY (CSU) • PLAN C • 2011–2012

Completion and certification of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from Santiago Canyon College to a campus in either the CALIFORNIA STATE UNIVERSITY or the UNIVERSITY OF CALIFORNIA system without the need, after transfer, to take additional lower-division, general education courses to satisfy campus general education requirements. Completion of IGETC does not guarantee admission to a UC campus. Students are strongly encouraged to meet with a Santiago Canyon College counselor when planning to transfer to a UC campus.

IMPORTANT NOTE: The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet IGETC requirements will be honored if they are approved for the academic year in which they are taken. Courses on this list are approved beginning Fall 2011 and are valid through Summer 2012.

AREA 1—ENGLISH COMMUNICATION

C.S.U.: 3 courses required, one from each group.
U.C.: 2 courses required, one each from Group A and B.

Group A: English Composition
1 course required, minimum 3 semester units.
English 101*/101H*

Group B: Critical Thinking-English Composition
1 course required, minimum 3 semester units.
English 103*/103H*
Philosophy 110*/110H*

Group C: Oral Communication (CSU ONLY)
1 course required, minimum 3 semester units.
Communication 100*/100H* (F'10), 101, 110, 111

AREA 2—MATHEMATICAL CONCEPTS & QUANTITATIVE REASONING

1 course required, minimum 3 semester units.
Math 105, 140*, 150*, 170*, 180*+/180H*, 185, 219*/219H*, 280, 287 (F'10)
Social Science 219*/219H*

AREA 3—ARTS & HUMANITIES

3 courses required, minimum 9 semester units, with at least one course from Group A and one course from Group B.

Group A: Arts (minimum 3 units)
Art 100*/100H*, 101, 102
Dance 100
Music 101*/101H*, 102, 103, 104
Television/Video Communications 103, 104
Theatre Arts 100, 101, 103, 104.

Group B: Humanities (minimum 3 units)
French 102, 201, 202
History 101*/101H*, 102*/102H*
Italian 102, 201, 202
Philosophy 106*/106H*, 108, 112, 115, 118, 120
Sign Language 111, 112, 116

AREA 4—SOCIAL & BEHAVIORAL SCIENCES

3 courses required, minimum 9 semester units from at least 2 disciplines or an interdisciplinary sequence.
Anthropology 100*/100H*, 103, 104
Chicano Studies 101
Communication 225*/225H*
Criminal Justice 101
Economics 120, 121
Ethnic Studies 101
Geography 100*/100H*, 102
History 118, 120*/120H*, 121*/121H*, 122*, 124, 127, 133, 152, 162
Human Development 107*
Interdisciplinary Studies 155
Political Science 101*/101H*, 200*/200H*, 201, 220, 221, 230
Psychology 100*/100H, 157*, 170, 200, 219, 230, 240, 250
Sociology 100*/100H*, 140*/140H*, 240
TV/Video Communications 105
Women's Studies 101*, 102, 201*.

AREA 5—PHYSICAL & BIOLOGICAL SCIENCES

Minimum 7-9 semester units. One Physical Science course and one Biological Science course required. One course must include a corresponding laboratory. Lab courses are underlined.

Group A: Physical Science (minimum 3 units)
Astronomy 109, 110, 112, 140
Chemistry 119*, 209*, 210, 219, 229
Earth Science 110, 115 (F'07)
Geography 101*
Geology 101*, 101L, 150, 201
Physical Science 115

Group B: Biological Science (minimum 3 units)
Anthropology 101
Biology 109*/109H*, 109L, 138, 177, 211, 212, 214, 219, 229, 249, 259
Environmental Studies 259.

AREA 6—LANGUAGE OTHER THAN ENGLISH (LOTE)

(UC ONLY) This proficiency may be met by one of the following methods:
Satisfactory completion of two years of high school coursework in a language other than English with grades of “C-” or better**; or completion of one of the following: French 101, Italian 101, Spanish 101*/101H*, 101B; Sign Language 110

OR satisfactory completion, with “C-” grades or better, of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English;

OR

3 or higher on College Board Advanced Placement Examination, 5 or higher on International Baccalaureate Higher Level Examination; SAT II: Subject Tests (see counselor for required scores); grade of A, B, or C on the “O” level exam; or score of 5, 6, or 7 on the “A” level exam

OR

satisfactory completion of an achievement test administered by a college in a language other than English equivalent to two years of high school language or verification of student competency equivalent to two years of high school language.

AMERICAN INSTITUTIONS REQUIREMENT (AI)
(Not part of IGETC. May be completed prior to transfer.)
CSU has an American Institutions graduation requirement that is separate from IGETC. To meet the CSU requirement, students should take Political Science 101*/101H* AND one of the following courses: History 118, 120*/120H*, 121*/121H*, 122*, 124, 127. Some CSU campuses may not permit a course to be certified for Area 4 and the AI requirement.

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”). Requirements vary by UC campus. Check with a Santiago Canyon College counselor to determine which course(s) to take.

CERTIFICATION REQUIREMENTS

1. Complete all courses used for IGETC. Certification with a minimum grade of C (C minus is not acceptable). A “Pass” is acceptable providing it is equivalent to a grade of C or higher.

2. Request certification from the last California community college you attend prior to transfer to CSU or UC. Requests should be made to the Office of Admissions and Records during the semester prior to the last term of attendance. Please consult the class schedule or the Santiago Canyon College Counseling Department for deadline information.

3. Prior to requesting certification, have official transcripts on file from every high school and college you have attended.

4. Courses taken at other California community colleges will be applied to the subject areas in which they are listed by the institution where the work was completed.

5. A course taken at a regionally accredited private institution (which does not maintain an IGETC certification list) will be placed in the subject area for which Santiago Canyon College or another California community college has an equivalent course. Equivalency is determined by Santiago Canyon College faculty or the Articulation Officer. Petitions are available from the Santiago Canyon College Counseling Department and must be accompanied by the appropriate documentation.

6. Courses completed at foreign institutions are not acceptable except for certification of competence in a language other than English.

7. Completing IGETC prior to transfer is strongly recommended and can be advantageous in the admissions process. Partial certification is permitted if the student has completed all but two courses on the pattern. Please see a Santiago Canyon College counselor for guidelines.

* Indicates that transfer credit may be limited by either UC or CSU or both. Please consult with a counselor for additional information.

** Official High School transcript must be on file in the admissions office.
This agreement lists approved Santiago Canyon College courses transferable for unit credit at all UC campuses and explains UC credit provisions. Additional courses for 2011–2012 may be approved after this catalog publication date. Please see an SCC counselor for more information.

### Accounting
- 101, 101H, 102, 102H

### American College English
- 102*, 116*
- *102 and 116 maximum credit, 8 units

### Anthropology
- 100, 100H, 101, 103, 104

### Art
- 100, 100H, 101, 102, 110, 111, 130, 131, 139, 141, 230, 231, 232, 233, 240, 241, 242

### Astronomy
- 109, 110, 112, 140

### Biology
- 109, 109H, 109L, 139*, 177
- 200 (Same as ENVR 200), 211, 212, 214, 229*, 239, 249, 259 (Same as ENVR 259)
- * 139 and 229 maximum credit one course

### Business
- 100, 101*, 105*, 150+
- *101 and 105 maximum credit, one course
- + No credit for 150 if taken after CMPR 105

### Chemistry
- 119*, 209*, 210, 219, 229, 249, 259
- * 119 and 209 maximum credit, one course; No credit for 119 or 209 if taken after 219

### Chicano Studies
- 101

### Communication
- 100, 100H, 101, 110, 111, 120, 120H, 134, 135, 225, 225H

### Computer Science
- 100, 100H, 105, 111, 112, 119, 120, 121, 131, 205, 213

### Counseling
- 101, 116, 144* (Same as PHIL 144)
- * 144, PHIL 111 maximum credit, one course

### Criminal Justice
- 101

### Dance

### Earth Science
- 110*, 115+
- (Same as GEO 150), *110, GEOG 101 or GEOL 101 maximum credit, one course
- + No credit for 115 if taken after 110, GEOG 101 or GEOL 101

### Economics
- 120, 121

### Education
- 101, 200, 210

### English

### Environmental Studies
- 200
- (Same as BIOL 200), 259 (Same as BIOL 259)

### Ethnic Studies
- 101

### Exercise Science
- # 100, 102, 110 maximum credit, one course; non activity courses maximum credit, 8 units
- ++ 105 and 106 maximum credit, one course; non activity courses maximum credit, 8 units
- * For any or all activity courses maximum credit, 4 units
- + Any or all of these courses combined maximum credit, 8 units

### French
- 101, 102, 196, 201, 202

### Geography
- 100, 100H, 101*, 102
- * 101, ERTH 110 & GEOG 101 maximum credit, one course

### Geology
- 101*, 101L, 142, 150,
- (Same as ERTH 150), 201, 260
- * 101, ERTH 110 and GEOG 101 maximum credit, one course

### History
- 101, 101H, 102, 102H, 118, 120,
- 120H, 121H, 122+, 124, 127, 133, 152, 162,
- + No credit for 122 if taken after 120, 120H or 121, 121H

### Human Development
- 107*, 110
- * 107 and PSYC 157 maximum credit, one course

### Interdisciplinary Studies
- 155

### Italian
- 101, 102, 195, 201, 202

### Library and Information Studies
- 100

### Mathematics
- 105, 140+, 150*, 170+, 180*, 180H*, 185, 203, 219, 219H (Same as SOC 219, 219H), 280, 287+#, 290, 295
- + 140 and 170 maximum credit, one course
- * 150, 180 and 180H maximum credit, one course
- +# 287, 290 and 295 maximum credit, 8 units

### Music
- 101, 101H, 102, 103, 104, 121, 122,
- 123, 124, 131, 135, 136, 137, 161, 162,
- 163, 164A, 164B, 185, 186, 187, 188

### Nutrition
- 115

### Philosophy
- 111*, 112, 115, 118, 120,
- 144* (Same as CNSL 144)
- * 111, 144, and CNSL 144 maximum credit, one course

### Physical Science
- 115

### Physics
- 109+, 210+, 211*, 217*, 227*, 237*, 279*, 289*
- + No credit for 109 if taken after 217 or 279
- * Maximum credit, one series: 210, 211; or 217, 227, 237; or 279, 289

### Political Science
- 101, 101H, 200, 200H, 201,
- 220, 221, 230

### Psychology
- 100, 100H, 157*, 170, 200, 219,
- 230, 240 (Same as SOC 240), 250
- * 157 and HUD 107 maximum credit, one course

### Sign Language
- 110, 111, 112, 116

### Social Science
- 219, 219H
- (Same as MATH 219, 219H)

### Sociology
- 100, 100H, 112, 140, 140H, 240
- (Same as PSYCH 240)

### Spanish
- 101, 101H, 101A, 101B, 102, 102H,
- 195A, 195B, 201, 202, 213

### Surveying/Mapping Sciences
- 118*, 119*
- * 118 and 119 maximum credit, one course

### Television/Video Communication
- 103 (Same as THEA 103), 104 (Same as THEA 104), 105

### Theatre Arts
- 100, 101, 103 (Same as TELV 103), 104 (Same as TELV 104), 110, 111, 118

### Women's Studies
- 101*, 102, 201*
- * 101 and 201 maximum credit, one course

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**Note:** Duplicate credit will not be awarded for both Honors and regular versions of a course. Credit will be awarded to the first course completed with a "C" or better.
SANTIAGO CANYON COLLEGE ADVANCED PLACEMENT GUIDE

AP tests with a minimum score of 3 can be used toward Associate degree requirements, CSU admission, CSU GE certification, UC admission and IGETC certification requirements. Please see an SCC counselor for more information about using AP credit in your transfer plan.

<table>
<thead>
<tr>
<th>Advanced Placement Exam</th>
<th>*SCC Course/AA Units Awarded</th>
<th>**CSU GE Certification Area/Semester Units 8/08</th>
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<th>***IGETC Certification Area/Semester Units 3/08</th>
<th>***UC Admission Semester Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>ART 101 and 102 6 units</td>
<td>Area C1 or C2 3 units</td>
<td>6 units</td>
<td>Area 3A or 3B 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>Studio Art: 2-D Design Portfolio/3-D Design Portfolio Drawing Portfolio</td>
<td>ART 110 ART 111 ART 130 3 units each</td>
<td>N/A</td>
<td>3 units Per exam</td>
<td>N/A</td>
<td>5.3 units (5.3 units maximum credit for all three tests)</td>
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<tr>
<td>Biology</td>
<td>BIOL 109 3 units</td>
<td>Area B2 and B3 4 units</td>
<td>6 units</td>
<td>Area 5B with lab 4 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>MATH 180 4 units</td>
<td>Area B4 3 units</td>
<td>3 units (only one Calculus exam applied toward degree)</td>
<td>Area 2A 3 units</td>
<td>2.7 units (5.3 units maximum credit both exams)</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>MATH 180 and 185 8 units</td>
<td>Area B4 3 units</td>
<td>6 units (only one Calculus exam applied toward degree)</td>
<td>Area 2A 3 units</td>
<td>5.3 semester units maximum credit both exams</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 219 5 units</td>
<td>Area B1 and B3 4 units</td>
<td>6 units</td>
<td>Area 5A with lab 4 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>N/A</td>
<td>Area C2 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>CMPR 121 and 131 3 units</td>
<td>N/A</td>
<td>3 units (only one CS exam applied toward degree)</td>
<td>N/A</td>
<td>1.3 units</td>
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<tr>
<td>Computer Science AB</td>
<td>CMPR 121 and 131 3 units</td>
<td>N/A</td>
<td>6 units (only one CS exam applied toward degree)</td>
<td>N/A</td>
<td>2.7 units (2.7 units maximum credit for both exams)</td>
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<tr>
<td>Economics: Macroeconomics</td>
<td>ECON 120 3 units</td>
<td>Area D2 3 units</td>
<td>3 units</td>
<td>Area 4B 3 units</td>
<td>2.7 units</td>
</tr>
<tr>
<td>Economics: Microeconomics</td>
<td>ECON 121 3 units</td>
<td>Area D2 3 units</td>
<td>3 units</td>
<td>Area 4B 3 units</td>
<td>2.7 units</td>
</tr>
<tr>
<td>English: Language and Composition</td>
<td>ENGL 101 4 units</td>
<td>Area A2 3 units</td>
<td>6 units</td>
<td>Area 1A 3 units</td>
<td>5.3 units maximum credit, either or both English exams</td>
</tr>
<tr>
<td>English: Literature and Composition</td>
<td>ENGL 101 4 units</td>
<td>Area A2 and C2 6 units</td>
<td>6 units</td>
<td>Area 1A or 3B 3 units</td>
<td>5.3 units maximum credit, either or both English exams</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>BIOL 200 or ENVR 200 3 units</td>
<td>Area B1 and B3 4 units (any date taken) B2 and B3 (prior to fall 09)</td>
<td>4 units</td>
<td>Area 5A with lab 3 units</td>
<td>2.7 units</td>
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<tr>
<td>French Language</td>
<td>FREN 101 and 102 10 units</td>
<td>Area C2 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>French Literature</td>
<td>N/A</td>
<td>Area C2 (prior to fall 09) 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
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<tr>
<td>German Language</td>
<td>N/A</td>
<td>Area C2 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
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<tr>
<td>Geography (Human)</td>
<td>GEOG 102 3 units</td>
<td>Area D5 3 units</td>
<td>3 units</td>
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<td>2.7 units</td>
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</tbody>
</table>
SANTIAGO CANYON COLLEGE ADVANCED PLACEMENT GUIDE (CONTINUED)

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<th>***UC Admission Semester Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government and Politics: Comparative</td>
<td>POLT 201 3 units</td>
<td>Area D8 3 units</td>
<td>3 units</td>
<td>Area 4 3 units</td>
<td>2.7 units</td>
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<tr>
<td>+Government and Politics: United States</td>
<td>POLT 101 3 units</td>
<td>Area D8 and US-2 CSU AI requirement 3 units</td>
<td>3 units</td>
<td>Area 4 3 units</td>
<td>2.7 units</td>
</tr>
<tr>
<td>History: European</td>
<td>HIST 102 3 units</td>
<td>Area C2 or D6 3 units</td>
<td>6 units</td>
<td>Area 3B or 4F 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>+History: US</td>
<td>HIST 120/121 6 units</td>
<td>Area C2 or D6 and US-1 CSU AI requirement 3 units</td>
<td>6 units</td>
<td>Area 3B or 4F 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>History: World</td>
<td>N/A</td>
<td>Area C2 or D6 3 units</td>
<td>6 units</td>
<td>Area 3B or 4F 3 units</td>
<td>5.3 units</td>
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<tr>
<td>Italian Language and Culture</td>
<td>ITAL 101, 102 10 units</td>
<td>Area C2 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
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<tr>
<td>Japanese Language</td>
<td>N/A</td>
<td>Area C2 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
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<tr>
<td>Latin: Literature</td>
<td>N/A</td>
<td>Area C2 (prior to fall 09) 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>2.7 units</td>
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<tr>
<td>Latin: Vergil</td>
<td>N/A</td>
<td>Area C2 3 units</td>
<td>3 units</td>
<td>Area 3B and 6A 3 units</td>
<td>2.7 units</td>
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<tr>
<td>Music Theory</td>
<td>N/A</td>
<td>Area C2 (prior to fall 09) 3 units</td>
<td>6 units</td>
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<td>5.3 units</td>
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<tr>
<td>++Physics B</td>
<td>PHYS 279 and 289 8 units</td>
<td>Area B1 and B3 4 units</td>
<td>6 units</td>
<td>Area 5A with lab 4 units</td>
<td>5.3 units</td>
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<tr>
<td><strong>CSU Advanced Placement Policies</strong></td>
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<tr>
<td><strong>UC Admission Semester Units</strong></td>
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<tr>
<td>Psychology</td>
<td>PSYCH 100 3 units</td>
<td>Area D9 3 units</td>
<td>3 units</td>
<td>Area 4 3 units</td>
<td>2.7 units</td>
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<td>Spanish Language</td>
<td>SPAN 101 and 102 10 units</td>
<td>Area C2 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
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<tr>
<td>Spanish Literature</td>
<td>N/A</td>
<td>Area C2 3 units</td>
<td>6 units</td>
<td>Area 3B and 6A 3 units</td>
<td>5.3 units</td>
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<tr>
<td>Statistics</td>
<td>MATH 219/SOC 219 4 units</td>
<td>Area B4 3 units</td>
<td>3 units</td>
<td>Area 2A 3 units</td>
<td>2.7 units</td>
</tr>
</tbody>
</table>

*SCC Advanced Placement Policies*
The AP exams listed above may be applied for course and unit credit toward the Santiago Canyon College associate degree requirements.

**CSU Advanced Placement Policies**
The AP exams listed above may be incorporated into certification of CSU General Education-breadth requirements. All CSU campuses will accept the minimum units shown if the examination is included in full or subject area certification; individual CSU campuses may choose to accept more units than those specified towards completion of general education breadth requirements. The CSU Minimum Semester Admission unit column reflects what each campus system wide will minimally accept toward CSU admission. +If a student passes more than one AP Physics exam, only 6 units of credit will apply to the baccalaureate degree, and only 4 units may be used for certification. +This examination only partially fulfills the CSU American Institutions graduation requirement but can be used toward the requirement. Students are strongly advised to check with an SCC counselor when using AP credit for CSU admission or for major requirements.

**UC Advanced Placement Policies**
Each AP exam may be applied to one IGETC area, as satisfying one course requirement, with the exception of LOTE. The final column reflects what the University of California will award per AP exam for admission to any UC campus. Students using an AP exam for a requirement other than general education, such as major preparation, are strongly advised to check with an SCC counselor and/or the Admissions Office of the UC transfer campus to determine how the AP exam will be used to meet major and graduation requirements.
<table>
<thead>
<tr>
<th>CLEP EXAM</th>
<th>Passing Score</th>
<th>SCC GE Area Semester Units Awarded</th>
<th>SCC Minimum AA Semester Units Awarded</th>
<th>CSU GE Certification Area/Semester Units Awarded 4/10/10</th>
<th>CSU Minimum Admission Semester Units Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Government</td>
<td>50</td>
<td>Area B1 or B2 3 units</td>
<td>3 units</td>
<td>Area D8 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>Area C2 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>Area C2 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Biology</td>
<td>50</td>
<td>Area A 3 units</td>
<td>3 units</td>
<td>Area B2 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>*Calculus</td>
<td>50</td>
<td>Area E2 and G1 3 units</td>
<td>3 units</td>
<td>Area B4 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50</td>
<td>Area A 3 units</td>
<td>3 units</td>
<td>Area B1 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>*College Algebra</td>
<td>50</td>
<td>Area E2 and G1 3 units</td>
<td>3 units</td>
<td>Area B4 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>*College Algebra-Trigonometry (Exam no longer offered)</td>
<td>50</td>
<td>Area E2 and G1 3 units</td>
<td>3 units</td>
<td>Area B4 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50</td>
<td>N/A 0 units</td>
<td>0 units</td>
<td>N/A 0 units</td>
<td>0 units</td>
</tr>
<tr>
<td>English Composition w/no essay (Exam not offered after 7/1/10)</td>
<td>50</td>
<td>N/A 0 units</td>
<td>0 units</td>
<td>N/A 0 units</td>
<td>0 units</td>
</tr>
<tr>
<td>English Composition w/essay (Exam not offered after 7/1/10)</td>
<td>50</td>
<td>N/A 0 units</td>
<td>0 units</td>
<td>N/A 0 units</td>
<td>0 units</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>Area C2 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>50</td>
<td>N/A 0 units</td>
<td>3 units</td>
<td>N/A 0 units</td>
<td>3 units</td>
</tr>
<tr>
<td>**French Level I</td>
<td>50</td>
<td>N/A 0 units</td>
<td>6 units</td>
<td>N/A 0 units</td>
<td>6 units</td>
</tr>
<tr>
<td>**French Level II</td>
<td>59</td>
<td>Area C 3 units</td>
<td>12 units</td>
<td>Area C2 3 units</td>
<td>12 units</td>
</tr>
<tr>
<td>Freshman College Composition (Exam not offered after 7/1/10)</td>
<td>50</td>
<td>N/A 0 units</td>
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<td>N/A 0 units</td>
<td>0 units</td>
</tr>
<tr>
<td>**German Level I</td>
<td>50</td>
<td>N/A 0 units</td>
<td>6 units</td>
<td>N/A 0 units</td>
<td>6 units</td>
</tr>
<tr>
<td>**German Level II</td>
<td>60</td>
<td>N/A 0 units</td>
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<td>Area C2 3 units</td>
<td>12 units</td>
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<tr>
<td>****History, United States I&quot; (Partially fulfills CSU AI requirement)</td>
<td>50</td>
<td>Area B1 3 units</td>
<td>3 units</td>
<td>Area D6 + US-1 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>****History, United States II&quot; (Partially fulfills CSU AI requirement)</td>
<td>50</td>
<td>Area B1 3 units</td>
<td>3 units</td>
<td>Area D6 + US-1 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Human Growth &amp; Development</td>
<td>50</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area E 3 units</td>
<td>3 units</td>
</tr>
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<td>Humanities</td>
<td>50</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>Area C2 3 units</td>
<td>3 units</td>
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<tr>
<td>Information Systems and Computer Applications</td>
<td>50</td>
<td>N/A 0 units</td>
<td>3 units</td>
<td>N/A 0 units</td>
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### Santiago Canyon College
College Level Examination Program (CLEP) Guide (Continued)

<table>
<thead>
<tr>
<th>CLEP Exam</th>
<th>Passing Score</th>
<th>SCC GE Area Semester Units Awarded</th>
<th>SCC Minimum AA Semester Units Awarded</th>
<th>CSU GE Certification Area/Semester Units Awarded 4/10/10</th>
<th>CSU Minimum Admission Semester Units Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Educational Psychology</td>
<td>50</td>
<td>N/A 0 units</td>
<td>3 units</td>
<td>N/A 0 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>50</td>
<td>N/A 0 units</td>
<td>3 units</td>
<td>N/A 0 units</td>
<td>3 units</td>
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<tr>
<td>Introductory Psychology</td>
<td>50</td>
<td>Area B2 3 units</td>
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<td>Area B9 3 units</td>
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</tr>
<tr>
<td>Introductory Sociology</td>
<td>50</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area D10 3 units</td>
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</tr>
<tr>
<td>Natural Sciences</td>
<td>50</td>
<td>Area A 3 units</td>
<td>3 units</td>
<td>Area B1 or B2 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>*Pre-Calculus</td>
<td>50</td>
<td>E2 and G1 3 units</td>
<td>3 units</td>
<td>Area B4 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Principles of Accounting</td>
<td>50</td>
<td>N/A 0 units</td>
<td>3 units</td>
<td>N/A 0 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area D2 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50</td>
<td>N/A 0 units</td>
<td>3 units</td>
<td>N/A 0 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50</td>
<td>N/A 0 units</td>
<td>3 units</td>
<td>N/A 0 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area D2 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50</td>
<td>N/A 0 units</td>
<td>0 units</td>
<td>N/A 0 units</td>
<td>0 units</td>
</tr>
<tr>
<td>**Spanish Level I</td>
<td>50</td>
<td>N/A 0 units</td>
<td>6 units</td>
<td>N/A 0 units</td>
<td>6 units</td>
</tr>
<tr>
<td>**Spanish Level II</td>
<td>63</td>
<td>Area C 3 units</td>
<td>12 units</td>
<td>Area C2 3 units</td>
<td>12 units</td>
</tr>
<tr>
<td>*Trigonometry (Exam no longer offered)</td>
<td>50</td>
<td>Area E2 + G1 3 units</td>
<td>3 units</td>
<td>Area B4 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Western Civilization I</td>
<td>50</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area C2 or D6 3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Western Civilization II</td>
<td>50</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area D6 3 units</td>
<td>3 units</td>
</tr>
</tbody>
</table>

**SCC CLEP Policies**
The CLEP exams listed above may be applied for unit credit toward the satisfaction of GE category or as elective units toward the Santiago Canyon College Associate degree.  
*Exam satisfies Santiago Canyon College Mathematics Proficiency requirement Area G1.*  
**If a student passes more than one CLEP exam in the same language other than English (e.g. two exams in French), then only one examination may be applied to the associate degree. For each of these tests a passing score of 50 earns 6 units of elective credit; higher scores earn more units and placement in Area C of general education.

**CSU CLEP Policies**
The CLEP exams listed above may be incorporated into certification of CSU General Education-Breadth requirements.  All CSU campuses will accept the minimum units shown if the examination is included in full or subject area certification; individual CSU campuses many choose to accept more units than those specified towards completion of general education requirements. The CSU Minimum Semester Admission unit column reflects what each campus system-wide will minimally accept toward CSU admission.  
Students are strongly advised to check with an SCC Counselor when using CLEP credit for CSU admission or for major requirements. The CSU has grandfathered in this policy to guide CLEP submissions for any year that the CLEP exams was taken.  
**If a student passes more than one CLEP exam in the same language other than English (e.g. two exams in French), then only one examination may be applied to the baccalaureate degree. For each of these tests a passing score of 50 earns 6 units of elective credit; higher scores earn more units and placement in Area C2 of general education breadth.**

***This examination partially fulfills the CSU American Institutions graduation requirement but can be used toward the US-1 requirement.

**UC CLEP Policies**
The University of California does not accept CLEP exams to meet requirements for IGETC.
<table>
<thead>
<tr>
<th>INTERNATIONAL BACCALAUREATE (IB) EXAM</th>
<th>Passing Score</th>
<th>SCC GE Area Semester Units Awarded</th>
<th>SCC Minimum AA/AS Semester Units Awarded</th>
<th>CSU GE Certification Area/Semester Units Awarded</th>
<th>CSU Minimum Admission Semester Units Awarded</th>
<th>IGETC Certification Area/Semester Units Awarded</th>
<th>IGETC Minimum Admission Semester Units Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>IB Biology HL</td>
<td>5-7</td>
<td>Area A (without lab) 3 units</td>
<td>3 units</td>
<td>Area B2 3 units</td>
<td>Area 5B (without lab) 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Chemistry HL</td>
<td>5-7</td>
<td>Area A (without lab) 3 units</td>
<td>3 units</td>
<td>Area B1 3 units</td>
<td>Area 5A (without lab) 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Economics HL</td>
<td>5-7</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area D2 3 units</td>
<td>Area 4B 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Geography HL</td>
<td>5-7</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area D5 3 units</td>
<td>Area 4E 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB History (any Region) HL</td>
<td>5-7</td>
<td>Area B1 or B2 3 units</td>
<td>3 units</td>
<td>Area C2 or D6 3 units</td>
<td>Area 3B or 4F 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Language A1 (any language, except English) HL*</td>
<td>5-7</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>N/A</td>
<td>N/A</td>
<td>Area 3B + 6A 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>IB Language A2 (any language, except English) HL*</td>
<td>5-7</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>N/A</td>
<td>N/A</td>
<td>Area 3B + 6A 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>IB Language A1 (any language) HL*</td>
<td>5-7</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>Area C2 3 units</td>
<td>Area 3B 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Language A2 (any language) HL*</td>
<td>5-7</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>Area C2 3 units</td>
<td>Area 3B 3 units</td>
<td>5.3 units</td>
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</tr>
<tr>
<td>IB Language B (any language) HL*</td>
<td>5-7</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>N/A</td>
<td>0 units</td>
<td>Area 6A 3 units</td>
<td>5.3 units</td>
</tr>
<tr>
<td>IB Mathematics HL**</td>
<td>5-7</td>
<td>Area E2 and G1 3 units</td>
<td>3 units</td>
<td>Area B4 3 units</td>
<td>Area 2A 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Physics HL</td>
<td>5-7</td>
<td>Area A 3 units</td>
<td>3 units</td>
<td>Area B1 3 units</td>
<td>Area 5A (without lab) 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Psychology HL</td>
<td>5-7</td>
<td>Area B2 3 units</td>
<td>3 units</td>
<td>Area D9 3 units</td>
<td>Area 4I 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
<tr>
<td>IB Theatre HL</td>
<td>5-7</td>
<td>Area C 3 units</td>
<td>3 units</td>
<td>Area C1 3 units</td>
<td>Area 3A 3 units</td>
<td>5.3 units</td>
<td></td>
</tr>
</tbody>
</table>

*The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language A1 and A2 are advanced courses in literature for native and non-native speakers.

**SCC IB Policies**
The IB exams listed above may be applied for unit credit toward the satisfaction of GE category or as elective units toward the Santiago Canyon College Associate degree.

**CSU IB Policies**
The IB Higher Level Exams listed above may be incorporated into certification of CSU General Education-Breadth requirements. All CSU campuses will accept the minimum units shown if the examination is included in full or subject area certification; individual CSU campuses may choose to apply IB exams toward credit in the major. The CSU Minimum Semester Admission unit column reflects what each campus system-wide will minimally accept toward CSU admission. Students who have earned credit from an IB exam should not take a comparable college course because transfer credit will not be granted for both. Students are strongly advised to check with an SCC counselor when using IB credit for CSU admission or for major requirements.

**IGETC IB Policies**
A score of 5, 6 or 7 on Higher Level IB Exams is required to grant credit for IGETC certification. An acceptable IB score for IGETC equates to either 3 semester or 4 quarter units for certification purposes. Students who have earned credit from an IB exam should not take a comparable college course because transfer credit will not be granted for both. Students are strongly advised to check with an SCC counselor when using IB credit for UC admission or for major requirements.
SANTIAGO CANYON COLLEGE

COLLEGE CREDIT
INSTRUCTIONAL PROGRAMS

Programs of study leading to the certificate or the associate degree or certification in specialized vocational areas are alphabetically arranged.

Programs which lead to transfer to universities and four-year colleges do not necessarily reflect the transfer requirements of specific schools. If the student wishes to receive an associate degree in a specific discipline, the requirements as set forth must be met. However, in planning a program for transfer, it should be noted that the transfer requirements for both the major and general education vary widely. Hence it is recommended that the student review the catalog of the school of transfer and consult with the counseling staff at Santiago Canyon College in planning transfer objectives.

All Associate Degrees and Certificates of Achievement will have a unique identification code in parentheses next to them in the College Credit Instructional Programs Section. Any certificates that do not have a unique identification code will not appear on your transcript.
ACCOUNTING

The associate degree and certificate of achievement in accounting prepares students for entry-level positions and promotional opportunities in accounting and administrative departments of businesses in public and private sector areas such as manufacturing, merchandising, financial service, wholesale trades, and government. Specialized training in accounting and finance principles and practices enables students to maintain accounting records and develop financial reports and make effective use of financial information for analysis and decision making. Entry-level employment opportunities include positions in accounts receivable/payable, payroll, income tax preparation, cost accounting, and a number of trainee positions. Promotional opportunities include higher-level responsibilities in these areas and the areas of general ledger, financial statement preparation and financial statement analysis.

Accounting Degree (11858)

Major requirements* for the associate in arts degree:

Course Units
Accounting 101/101H, Financial Accounting 4
Accounting 102/102H, Managerial Accounting 4
Computer Information Systems 101, Intro. to Microsoft Office 3
Computer Information Systems 106, Microsoft Excel 3
Accounting 204, Managerial Cost Accounting OR 3
Accounting 205, Intermediate Accounting
Business 222, Business Writing OR 3
Management 122, Business Communications

TOTAL 20

Accounting Certificate of Achievement (21631)

Major requirements for the certificate of achievement:

Course Units
Accounting 101/101H, Financial Accounting 4
Accounting 102/102H, Managerial Accounting 4
Computer Information Systems 101, Intro. to Microsoft Office 3
Computer Information Systems 106, Microsoft Excel 3
Accounting 204, Managerial Cost Accounting OR 3
Accounting 205, Intermediate Accounting
Business 222, Business Writing OR 3
Management 122, Business Communications

TOTAL 20

General Accounting Certificate

Requirements for the certificate:

Course Units
Accounting 035, QuickBooks 1.5
Accounting 101/101H, Financial Accounting 4
Computer Information Systems 106, Microsoft Excel 3
Computer Information Systems 108, Microsoft Access 3

TOTAL 11.5

Computerized Accounting Certificate

Requirements for the certificate:

Course Units
Accounting 101/101H, Financial Accounting 4
Accounting 102/102H, Managerial Accounting 4
Computer Information Systems 101, Introduction to Microsoft Office (3) OR 3-4
Business 150, Introduction to Computing and Application Software (4)
Management 122, Business Communications OR 3
Business 222, Business Writing

TOTAL 14-15

AMERICAN SIGN LANGUAGE
(See Sign Language)

ANTHROPOLOGY

Anthropology Degree (11939)

The associate degree in anthropology is designed as a program of basic courses for students considering professional careers as archeologists, ethnographers, linguists, physical anthropologists; for those preparing to become social science teachers in elementary or secondary schools; for such diverse fields as psychology, medicine, law, political science, international relations, economics, or history; and for individuals who plan public service careers in social work, health and welfare programs, foreign service. Students should consult with faculty members for advice in selecting course offerings best suited to the individual's particular career objectives. The associate of arts degree prepares the student to move into a curriculum at a four-year institution leading to a baccalaureate degree in these careers.

Major requirements* for the associate in arts degree:

Course Units
Anthropology 100/100H, Introduction to Cultural Anthropology 3
Anthropology 101, Introduction to Physical Anthropology 3
Anthropology 103, Introduction to Archeology 3
Anthropology 104, Language and Culture 3
Electives 6

TOTAL 18

Electives should be chosen from Category A, if emphasis is Cultural Anthropology, and Category B, if emphasis is Physical Anthropology.

Category A, Cultural Anthropology Emphasis
Economics 120; Ethnic Studies 101; Geography 100/100H, 102; History 101/101H; Psychology 100/100H; Sociology 100/100H; Women’s Studies 101.

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Category B, Physical Anthropology Emphasis
Biology 109/109H, 109L, 149, 177, 210 or 211, 212;
Geology 101, 101L, 201.
It is strongly recommended that anthropology majors transferring
to the CSU or UC system complete Foreign Language courses at the
201 and 202 level, and Social Sciences 219/219H or Mathematics
219/219H.

APPRENTICESHIP BARBERING

Apprenticeship Barbering Certificate of Achievement (11992)
The program in Apprenticeship Barbering prepares students
to obtain their master’s license. The program offers related
and supplemental classroom instruction as outlined by
the apprenticeship agreement provided by the Division of
Apprenticeship Standards. The student will learn proper public
relations techniques and sound business management operations
in addition to specialized barbering skills. All students must be
indentured by the State of California. Interested apprentices should
contact the Apprenticeship Office at Santiago Canyon College
and the Division of Apprenticeship Standards.
Requirements for the certificate:
Course Units
Apprenticeship Barbering 021, Barbering Apprentice 1 3
Apprenticeship Barbering 022, Barbering Apprentice 2 3
Apprenticeship Barbering 023, Barbering Apprentice 3 3
Apprenticeship Barbering 024, Barbering Apprentice 4 3
TOTAL 12

APPRENTICESHIP CARPENTRY

Apprenticeship Carpentry-Concrete
The associate degree and certificate of achievement in carpentry-
concrete is designed to provide the related and supplemental
instruction required for carpentry apprentices. Concrete finishers
place and finish concrete floors, driveways, sidewalks, curbs, bridge
decks and other concrete structures. They apply architectural
exposed, patterned or stamped, broomed and smooth finishes
on concrete surfaces. They are skilled at repairing, waterproofing
and restoring concrete surfaces. Successful completion results in
journeyworker status. Interested apprentices should contact the
Carpentry Apprenticeship Committee and the Apprenticeship Office
at Santiago Canyon College.

Concrete Degree (13235)
Major requirements* for the associate in science degree:
Courses Units
Apprenticeship Carpentry 004C, Printreading 2
Apprenticeship Carpentry 021A, Orientation 2
Apprenticeship Carpentry 021B, Safety and Health Certifications 2
Apprenticeship Carpentry 021C, Basic Wall Framing 2
Apprenticeship Carpentry 024D, Transit Level/Laser 2
Apprenticeship Carpentry 025A, Foundations and Flatwork 2
Apprenticeship Carpentry 025D, Advanced Printreading 2
Apprenticeship Carpentry 026A, Tilt-Up Panel Construction 2
Apprenticeship Carpentry 026B, Wall Forming 2
Apprenticeship Carpentry 026C, Gang Forms/Columns 2
Apprenticeship Carpentry 026D, Abutments 2
Apprenticeship Carpentry 027C, Beam and Deck Forming 2
Apprenticeship Carpentry 027D, Stairs and Ramp Forming 2
Apprenticeship Carpentry 027A, Bridge Construction 2
Apprenticeship Carpentry 029A, Bridge Construction 2
Apprenticeship Carpentry 029A, Bridge Construction 2
TOTAL 30

Concrete Certificate of Achievement (21657)
Major requirements for the certificate of achievement:
Courses Units
Apprenticeship Carpentry 004C, Printreading 2
Apprenticeship Carpentry 021A, Orientation 2
Apprenticeship Carpentry 021B, Safety and Health Certifications 2
Apprenticeship Carpentry 021C, Basic Wall Framing 2
Apprenticeship Carpentry 024D, Transit Level/Laser 2
Apprenticeship Carpentry 025A, Foundations and Flatwork 2
Apprenticeship Carpentry 025D, Advanced Printreading 2
Apprenticeship Carpentry 026A, Tilt-Up Panel Construction 2
Apprenticeship Carpentry 026B, Wall Forming 2
Apprenticeship Carpentry 026C, Gang Forms/Columns 2
Apprenticeship Carpentry 026D, Abutments 2
Apprenticeship Carpentry 027C, Beam and Deck Forming 2
Apprenticeship Carpentry 027D, Stairs and Ramp Forming 2
Apprenticeship Carpentry 027A, Bridge Construction 2
Apprenticeship Carpentry 029A, Bridge Construction 2
TOTAL 30

Drywall Finisher Degree (13234)
Major requirements* for the associate in science degree:
Courses Units
Apprenticeship Carpentry 071A, Orientation 2
Apprenticeship Carpentry 071B, Safety and Health Certifications 2
Apprenticeship Carpentry 072A, Basic Metal Framing 2
Apprenticeship Carpentry 074A, Printreading 2
Apprenticeship Carpentry 076A, Basic Hand Finishing 2
Apprenticeship Carpentry 076B, Automatic Finishing Tools 2
Apprenticeship Carpentry 077A, Drywall Installation/Finish Trims 2
Apprenticeship Carpentry 077B, Advanced Hand Finishing 2
Apprenticeship Carpentry 077C, Advanced Automatic Finishing Tools 2
Apprenticeship Carpentry 078B, Advanced Metal Framing 2
Apprenticeship Carpentry 078C, Wet Wall Finishes 2
Apprenticeship Carpentry 078D, Ceiling and Soffit Finishing 2
Apprenticeship Carpentry 079A, Drywall/Acoustical Ceilings 2
Apprenticeship Carpentry 082B, Firestopping Procedures 2
Apprenticeship Carpentry 082C, Decorative Trims and Textures 2
TOTAL 30

Drywall Finisher Certificate of Achievement (21663)
Major requirements for the certificate of achievement:
Courses Units
Apprenticeship Carpentry 071A, Orientation 2
Apprenticeship Carpentry 071B, Safety and Health Certifications 2
Apprenticeship Carpentry 072A, Basic Metal Framing 2

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Supplemental courses: Apprenticeship Carpentry 030, 040, 041, 074B, 075B, 083, 085, 086A, 089, 090.

**Apprenticeship Carpentry-Finish Carpentry**

The associate degree and certificate of achievement in carpentry-finish carpentry provides the related and supplemental instruction required in the trade. Finish carpenters cut, shape and assemble wood products, including moldings, panels and furniture. They also fabricate store fixtures, which includes the use of metal, plastics, and glass. Successful completion will result in journeyworker status. Interested apprentices should contact the Carpentry Apprenticeship Committee and the Apprenticeship Office at Santiago Canyon College.

**Finish Carpentry Degree (13231)**

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Carpentry 004C, Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021A, Orientation</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021B, Safety and Health Certifications</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021C, Basic Wall Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024D, Transit Level/Laser</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 025D, Advanced Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033A, Cabinet Millwork and Assembly</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033B, Cabinet Installation</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033C, Show Case/Loose Store Fixture</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033D, Moldings and Trims</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034A, Plastic Laminates</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034B, Solid Surface</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034C, Stair Trim</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034D, Doors and Door Hardware</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 035C, Exit and Electrical Security Devices</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL 30

**Finish Carpentry Certificate of Achievement (21658)**

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Carpentry 004C, Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021A, Orientation</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021B, Safety and Health Certifications</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021C, Basic Wall Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024D, Transit Level/Laser</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 025D, Advanced Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033A, Cabinet Millwork and Assembly</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033B, Cabinet Installation</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033C, Show Case/Loose Store Fixture</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 033D, Moldings and Trims</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034A, Plastic Laminates</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034B, Solid Surface</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034C, Stair Trim</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 034D, Doors and Door Hardware</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 035C, Exit and Electrical Security Devices</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL 30

**Apprenticeship Carpentry-Framing**

The associate degree and certificate of achievement in carpentry-framing provides related and supplemental instruction including the technical skills and knowledge required in the trade. Framers work primarily on residential sites installing floor joists, interior and exterior walls, and roof trusses. They may also install exterior doors and windows, cornices, outside wall trim, and roof coverings.
Successful completion will result in journeyworker status. Interested apprentices should contact the Carpentry Apprenticeship Committee and the Apprenticeship Office at Santiago Canyon College.

Framing Degree (13232)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Carpentry 004C, Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021A, Orientation</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021B, Safety and Health Certifications</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021C, Basic Wall Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022A, Commercial Floor Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022B, Basic Stairs</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022C, Intermediate Stairs</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022D, Exterior Finish Details</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 023B, Basic Roof Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 023C, Advanced Roof Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 023D, Metal Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024A, Basic Commercial Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024B, Advanced Commercial Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024C, Panelized Roofing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024D, Transit Level/Laser</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 025C, Advanced Stairs</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 025D, Advanced Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 028C, Intermediate Commercial Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 028D, Interior Elevations</td>
<td>2</td>
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</tbody>
</table>

TOTAL 38

Framing Certificate of Achievement (21659)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Carpentry 004C, Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021A, Orientation</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021B, Safety and Health Certifications</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021C, Basic Wall Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022A, Commercial Floor Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022B, Basic Stairs</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022C, Intermediate Stairs</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 022D, Exterior Finish Details</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 023B, Basic Roof Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 023C, Advanced Roof Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 023D, Metal Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024A, Basic Commercial Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024B, Advanced Commercial Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024C, Panelized Roofing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 024D, Transit Level/Laser</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 025C, Advanced Stairs</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 025D, Advanced Printreading</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 028C, Intermediate Commercial Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 028D, Interior Elevations</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL 38

Apprenticeship Carpentry-Millwrighting

The associate degree and certificate of achievement in carpentry-millwrighting provides the required related and supplemental classroom instruction in the technical skills and knowledge required in the trade for state-indentured apprentices. The work of the Millwright involves installing conveyor systems, escalators, giant electrical turbines and generators. Millwrights install and do maintenance on machinery in factories and do much of the precision work in nuclear power plants. Millwrights are skilled construction mechanics who study and interpret blueprints, and then put their knowledge and expertise to work drilling, welding, bolting and doing whatever else is necessary to assure that the cogs of industry are in perfect working order. Interested apprentices should contact the Millwright Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College.

Millwrighting Degree (11986)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Carpentry 051, Orientation</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 052, Transit Level/Laser</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 053, Machinery Installation and Erection</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 054, Drive Systems and Alignment</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 055, Hydraulic Systems and Machinery Bases</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 056, Pneumatic Systems and Compressors</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 057, Turbines and Generators</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 058, System Design and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 059, Structural Welding-AWS/L.A. City</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 060, Welding Fabrication</td>
<td>3</td>
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</tbody>
</table>

TOTAL 30

Millwright Certificate of Achievement (21662)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Carpentry 051, Orientation</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 052, Transit Level/Laser</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 053, Machinery Installation and Erection</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 054, Drive Systems and Alignment</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 055, Hydraulic Systems and Machinery Bases</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 056, Pneumatic Systems and Compressors</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 057, Turbines and Generators</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 058, System Design and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 059, Structural Welding-AWS/L.A. City</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 060, Welding Fabrication</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 30

Apprenticeship Carpentry-Tilt-Up

The associate degree and certificate of achievement in carpentry-tilt-up is designed to provide related and supplemental instruction including the technical skills and knowledge required in the trade. Tilt-up apprentices work with slabs of concrete which after attaining proper strength, are lifted (tilted) with a crane and set on prepared foundations to form the exterior walls of a building. The erected panels are temporarily braced, connected, and the joints between them caulked. Tilt-up workers may construct and attach the roof structure to the walls to complete the building shell. Tilt-up construction is used for nearly every type of one- to four-story building. Successful completion results in journeyman status. Interested apprentices should contact the Carpentry Apprenticeship Committee and the Apprenticeship Office at Santiago Canyon College.

Tilt-Up Degree (13233)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Carpentry 002A, Building Layout/Transit/Laser Level</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 002B, Slabs/Interior-Exterior Footings</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 003A, Tilt-Up Introduction</td>
<td>2</td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Apprenticeship Carpentry 003B, Printreading-Panel Layout 2
Apprenticeship Carpentry 003D, Printreading-Panel Construction 2
Apprenticeship Carpentry 004A, Lifting and Bracing Safety 2
Apprenticeship Carpentry 004B, Pour-in-Place Wall Forms 2
Apprenticeship Carpentry 005A, Wall-Columns/Cutting and Burning 2
Apprenticeship Carpentry 005B, Site Work/Curb and Gutter 2
Apprenticeship Carpentry 021A, Orientation 2
Apprenticeship Carpentry 021B, Safety and Health Certifications 2
Apprenticeship Carpentry 021C, Basic Wall Framing 2
Apprenticeship Carpentry 022A, Commercial Floor Framing 2
Apprenticeship Carpentry 023A, Commercial Roof Framing 2
Apprenticeship Carpentry 025A, Foundations and Flatwork 2
Apprenticeship Carpentry 027D, Stairs and Ramp Forming 2
TOTAL 32

Tilt-Up Certificate of Achievement (21660)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>Apprenticeship Carpentry 002A, Building Layout/Transit/Laser Level</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 002B, Slabs/Interior-Exterior Footings</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 003A, Tilt-Up Introduction</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 003B, Printreading-Panel Layout</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 003D, Printreading-Panel Construction</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 004A, Lifting and Bracing Safety</td>
<td>2</td>
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<tr>
<td>Apprenticeship Carpentry 004B, Pour-in-Place Wall Forms</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 005A, Wall-Columns/Cutting and Burning</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 005B, Site Work/Curb and Gutter</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 021A, Orientation</td>
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<tr>
<td>Apprenticeship Carpentry 021B, Safety and Health Certifications</td>
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<tr>
<td>Apprenticeship Carpentry 021C, Basic Wall Framing</td>
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<tr>
<td>Apprenticeship Carpentry 022A, Commercial Floor Framing</td>
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<tr>
<td>Apprenticeship Carpentry 023A, Commercial Roof Framing</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 025A, Foundations and Flatwork</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship Carpentry 027D, Stairs and Ramp Forming</td>
<td>2</td>
</tr>
</tbody>
</table>
TOTAL 32

APPRENTICESHIP COSMETOLOGY

Apprenticeship Cosmetology Certificate of Achievement (11991)

The certificate program in Apprenticeship Cosmetology prepares students to obtain their license. The program is designed to offer the required related and supplemental classroom instruction as outlined by the apprenticeship agreement provided by the Division of Apprenticeship Standards and the State Board of Barbering and Cosmetology. All students must be indentured by the State of California. Interested apprentices should contact the Apprenticeship Office at Santiago Canyon College and the Orange County Barber and Cosmetology Joint Apprenticeship Committee.

Requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Apprenticeship Cosmetology 035, Cosmetology Apprentice</td>
<td>14</td>
</tr>
</tbody>
</table>
TOTAL 14

APPRENTICESHIP ELECTRICITY

Apprenticeship Electricity-Industrial

The associate degree in industrial electricity provides the required related and supplemental instruction for state-indentured electrical inside wiremen apprentices. They install conduit, electrical wiring, fixtures and electrical apparatus inside commercial buildings and in a multitude of industrial settings. They use many different kinds of tools, ranging from simple one- and two-hand tools to power-assisted tools. Interested apprentices should contact the Orange County Electrical Apprenticeship Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to state journeymen status. Meets the state requirements as an electrician trainee program.

Industrial Degree (1185)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Electrician 051, Inside Wireman 1</td>
<td>3</td>
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<tr>
<td>Apprenticeship Electrician 052, Inside Wireman 2</td>
<td>3</td>
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<tr>
<td>Apprenticeship Electrician 053, Inside Wireman 3</td>
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<tr>
<td>Apprenticeship Electrician 054, Inside Wireman 4</td>
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</tr>
<tr>
<td>Apprenticeship Electrician 055, Inside Wireman 5</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 056, Inside Wireman 6</td>
<td>3</td>
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<tr>
<td>Apprenticeship Electrician 057, Inside Wireman 7</td>
<td>3</td>
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<tr>
<td>Apprenticeship Electrician 058, Inside Wireman 8</td>
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<td>Apprenticeship Electrician 059, Inside Wireman 9</td>
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<td>Apprenticeship Electrician 060, Inside Wireman 10</td>
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<tr>
<td>Apprenticeship Electrician 061, Electrical Safety and First Aid</td>
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TOTAL 31.5

Industrial Certificate of Achievement (21661)

Major requirements for the certificate of achievement:

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<th>Course</th>
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<tbody>
<tr>
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<tr>
<td>Apprenticeship Electrician 052, Inside Wireman 2</td>
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<td>Apprenticeship Electrician 053, Inside Wireman 3</td>
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<td>Apprenticeship Electrician 054, Inside Wireman 4</td>
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<td>Apprenticeship Electrician 055, Inside Wireman 5</td>
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<tr>
<td>Apprenticeship Electrician 058, Inside Wireman 8</td>
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</tr>
<tr>
<td>Apprenticeship Electrician 059, Inside Wireman 9</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 060, Inside Wireman 10</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 061, Electrical Safety and First Aid</td>
<td>1.5</td>
</tr>
</tbody>
</table>
TOTAL 31.5

Apprenticeship Electricity-Intelligent Transportation Systems Electrician

The associate degree and certificate of achievement in intelligent transportation systems electrician provides related and supplemental instruction for electrical apprentices. The program is designed to train apprentices in the process of planning, installing and maintaining intelligent transportation signal systems beginning with the rudimentary elements of construction housekeeping and safety, and then continuing on through the more advanced techniques of job planning, layout, installation and start-up. Apprentices will learn to use the National Electrical Safety codes, Caltrans installation plans and specifications and IMSA standards and practices. Apprentices will receive hand-on training as well as instruction in electrical theory. Apprentices who successfully complete this program will be eligible for Intelligent Transportation Systems Electrician Journeymen status. They will have the skills necessary to work for signatory Intelligent Transportation/Traffic Signal contractors and will be qualified to train apprentices.

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Intelligent Transportation Systems Electrician Degree (22271)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprentice Electrician 031, Intelligent Traffic Systems Electrician Apprentice 1</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 032, Intelligent Traffic Systems Electrician Apprentice 2</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 033, Intelligent Traffic Systems Electrician Apprentice 3</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 034, Intelligent Traffic Systems Electrician Apprentice 4</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 035, Intelligent Traffic Systems Electrician Apprentice 5</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 036, Intelligent Traffic Systems Electrician Apprentice 6</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 037, Intelligent Traffic Systems Electrician Apprentice 7</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 038, Intelligent Traffic Systems Electrician Apprentice 8</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Power Lineman Certificate of Achievement (21652)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprentice Electrician Power Lineman 020, Orientation</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 021, Power Lineman Apprentice 1</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 022, Power Lineman Apprentice 2</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 023, Power Lineman Apprentice 3</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 024, Power Lineman Apprentice 4</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 025, Power Lineman Apprentice 5</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 026, Power Lineman Apprentice 6</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 027, Work Methods Training</td>
<td>1</td>
</tr>
<tr>
<td>Apprentice Electrician Power Lineman 028, Rubber Gloves Training</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Apprenticeship Electricity-Sound Installer

The associate degree in sound installer provides related and supplemental instruction for electrical apprentices who have been recommended by the Joint Apprenticeship Committee. Interested apprentices should contact the committee and the Apprenticeship Office at Santiago Canyon College. Successful completion may lead to state journeyworker certification.

Sound Installer Degree (19588)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprentice Electrician 021, Sound and Communication Apprentice 1</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 022, Sound and Communication Apprentice 2</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 023, Sound and Communication Apprentice 3</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 024, Sound and Communication Apprentice 4</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 025, Sound and Communication Apprentice 5</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 026, Sound and Communication Apprentice 6</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Sound Installer Certificate of Achievement (19587)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprentice Electrician 021, Sound and Communication Apprentice 1</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 022, Sound and Communication Apprentice 2</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 023, Sound and Communication Apprentice 3</td>
<td>3</td>
</tr>
<tr>
<td>Apprentice Electrician 024, Sound and Communication Apprentice 4</td>
<td>3</td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Apprenticeship Electrician 025,  
Sound and Communication Apprentice 5  
Apprenticeship Electrician 026,  
Sound and Communication Apprentice 6  
TOTAL 18

**Apprenticeship Electricity-Sound Technician**

The associate degree in sound technician provides related and supplemental instruction for electrical apprentices who have been recommended by the Joint Apprenticeship Committee. Interested apprentices should contact the committee and the Apprenticeship Office at Santiago Canyon College. Successful completion will lead to state journeyworker certification.

**Sound Technician Degree (19590)**

**Major requirements** for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Electrician 021, Sound and Communication Apprentice 1</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 022, Sound and Communication Apprentice 2</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 023, Sound and Communication Apprentice 3</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 024, Sound and Communication Apprentice 4</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 025, Sound and Communication Apprentice 5</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 026, Sound and Communication Apprentice 6</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 027, Sound and Communication Apprentice 7</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 028, Sound and Communication Apprentice 8</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>24</td>
</tr>
</tbody>
</table>

**Sound Technician Certificate of Achievement (19589)**

**Major requirements** for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Electrician 021, Sound and Communication Apprentice 1</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 022, Sound and Communication Apprentice 2</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 023, Sound and Communication Apprentice 3</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 024, Sound and Communication Apprentice 4</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 025, Sound and Communication Apprentice 5</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 026, Sound and Communication Apprentice 6</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 027, Sound and Communication Apprentice 7</td>
<td>3</td>
</tr>
<tr>
<td>Apprenticeship Electrician 028, Sound and Communication Apprentice 8</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>24</td>
</tr>
</tbody>
</table>

**APPRENTICESHIP MAINTENANCE MECHANIC**

The associate degree and certificate of achievement in Apprenticeship Maintenance Mechanic, Maintenance Mechanic Apprentice I and II, provides related and supplemental instruction required for MWD Maintenance Mechanic apprentices who have been selected by the apprenticeship committee. Those interested should contact the Maintenance Mechanic apprenticeship committee or the Apprenticeship Office at Santiago Canyon College.

**Apprenticeship Maintenance Mechanic-Apprentice I**

**Maintenance Mechanic Apprentice I Degree (16839)**

**Major requirements** for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
</table>
| Apprenticeship Maintenance Mechanic 021,  
Maintenance Mechanic Apprentice, Level 1  | 4.5   |
| Apprenticeship Maintenance Mechanic 022,  
Maintenance Mechanic Apprentice I, Level 2 | 4.5   |
| Apprenticeship Maintenance Mechanic 043,  
Maintenance Mechanic Apprentice I, Level 3 | 4.5   |
| Apprenticeship Maintenance Mechanic 044,  
Maintenance Mechanic Apprentice I, Level 4 | 4.5   |
| Apprenticeship Maintenance Mechanic 045,  
Maintenance Mechanic Apprentice I, Level 5 | 4.5   |
| Apprenticeship Maintenance Mechanic 046,  
Maintenance Mechanic Apprentice I, Level 6 | 4.5   |
| Apprenticeship Maintenance Mechanic 047,  
Maintenance Mechanic Apprentice I, Level 7 | 4.5   |
| Apprenticeship Maintenance Mechanic 048,  
Maintenance Mechanic Apprentice I, Level 8 | 4.5   |
| TOTAL                                          | 36    |

**Maintenance Mechanic Apprentice I Certificate of Achievement (21651)**

**Major requirements** for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
</table>
| Apprenticeship Maintenance Mechanic 021,  
Maintenance Mechanic Apprentice, Level 1  | 4.5   |
| Apprenticeship Maintenance Mechanic 022,  
Maintenance Mechanic Apprentice I, Level 2 | 4.5   |
| Apprenticeship Maintenance Mechanic 043,  
Maintenance Mechanic Apprentice I, Level 3 | 4.5   |
| Apprenticeship Maintenance Mechanic 044,  
Maintenance Mechanic Apprentice I, Level 4 | 4.5   |
| Apprenticeship Maintenance Mechanic 045,  
Maintenance Mechanic Apprentice I, Level 5 | 4.5   |
| Apprenticeship Maintenance Mechanic 046,  
Maintenance Mechanic Apprentice I, Level 6 | 4.5   |
| Apprenticeship Maintenance Mechanic 047,  
Maintenance Mechanic Apprentice I, Level 7 | 4.5   |
| Apprenticeship Maintenance Mechanic 048,  
Maintenance Mechanic Apprentice I, Level 8 | 4.5   |
| TOTAL                                          | 36    |

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.*
Apprenticeship Maintenance Mechanic-Apprentice II

Maintenance Mechanic Apprentice II Degree (11982)

Major requirements* for the associate degree in science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Maintenance Mechanic 021, Maintenance Mechanic Apprentice, Level 1</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 052, Maintenance Mechanic Apprentice II, Level 2</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 053, Maintenance Mechanic Apprentice II, Level 3</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 054, Maintenance Mechanic Apprentice II, Level 4</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 055, Maintenance Mechanic Apprentice II, Level 5</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 056, Maintenance Mechanic Apprentice II, Level 6</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 057, Maintenance Mechanic Apprentice II, Level 7</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 058, Maintenance Mechanic Apprentice II, Level 8</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL 36

Maintenance Mechanic Apprentice II Certificate of Achievement (21653)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Maintenance Mechanic 021, Maintenance Mechanic Apprentice, Level 1</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 052, Maintenance Mechanic Apprentice II, Level 2</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 053, Maintenance Mechanic Apprentice II, Level 3</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 054, Maintenance Mechanic Apprentice II, Level 4</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 055, Maintenance Mechanic Apprentice II, Level 5</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 056, Maintenance Mechanic Apprentice II, Level 6</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 057, Maintenance Mechanic Apprentice II, Level 7</td>
<td>4.5</td>
</tr>
<tr>
<td>Apprenticeship Maintenance Mechanic 058, Maintenance Mechanic Apprentice II, Level 8</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL 36

Heavy Duty Repairer Degree (17687)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 031, Heavy Duty Repairer 1</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 032, Heavy Duty Repairer 2</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 033, Advanced Hydraulics</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 034, Disassembly and Assembly</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL 24

Heavy Duty Repairer Certificate of Achievement (21654)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 031, Heavy Duty Repairer 1</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 032, Heavy Duty Repairer 2</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 033, Advanced Hydraulics</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 034, Disassembly and Assembly</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL 24

APPRENTICESHIP OPERATING ENGINEERS

Apprenticeship Operating Engineers-Heavy Duty Repairer

The associate degree and certificate of achievement in heavy duty repairer provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion may lead to journeyworker status.

Heavy equipment operator Degree (11983)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 041, Equipment Operator 1</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 042, Grade Checking</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 043, Equipment Operator 3</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 044, Plan Reading</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 045, Equipment Operator 5</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 046, Hazmat 6</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL 24

Heavy equipment operator Certificate of Achievement (21655)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 041, Equipment Operator 1</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 042, Grade Checking</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 043, Equipment Operator 3</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 044, Plan Reading</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 045, Equipment Operator 5</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 046, Hazmat 6</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL 24

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Apprenticeship Operating Engineers-Plant Equipment/ Rock, Sand and Gravel

The degree and certificate of achievement in plant equipment/rock, sand and gravel provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion will result in journeymen status.

Plant Equipment/Rock, Sand and Gravel Degree (17686)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 021, Plant Equipment Operator 1</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 022, Plant Equipment Operator 2</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 023, Plant Equipment Operator 3</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 024, Plant Equipment Operator 4</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 025, Plant Equipment Operator 5</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 026, Plant Equipment Operator 6</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Apprenticeship Operating Engineers-Steel/Welding Structural (17687)

The associate degree in steel/welding structural provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to journeymen status.

Apprenticeship Operating Engineers-Steel/Welding Concrete (17688)

The associate degree in steel/welding concrete provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to journeymen status.

Plant Equipment/Rock, Sand and Gravel Certificate of Achievement (21656)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 021, Plant Equipment Operator 1</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 022, Plant Equipment Operator 2</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 023, Plant Equipment Operator 3</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 024, Plant Equipment Operator 4</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 025, Plant Equipment Operator 5</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 026, Plant Equipment Operator 6</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Apprenticeship Operating Engineers-Steel/Welding Reinforced Concrete (17689)

The associate degree in steel/welding reinforced concrete provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to journeymen status.

Apprenticeship Operating Engineers-Steel/Welding Prestressed Concrete (17690)

The associate degree in steel/welding prestressed concrete provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to journeymen status.

Apprenticeship Operating Engineers-Steel/Welding Prestressed Concrete (17691)

The associate degree in steel/welding prestressed concrete provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to journeymen status.

Apprenticeship Operating Engineers-Steel/Welding Structural Concrete (17692)

The associate degree in steel/welding structural concrete provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to journeymen status.

Apprenticeship Operating Engineers-Steel/Welding Structural Concrete (17693)

The associate degree in steel/welding structural concrete provides the required related and supplemental instruction for state-indentured operating engineer apprentices. Interested apprentices should contact the Operating Engineers Joint Apprenticeship and Training Committee and the Apprenticeship Office at Santiago Canyon College. Successful completion leads to journeymen status.

Special Inspector Certificate of Achievement (21665)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 075A, Soils Inspection and Testing</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 076A, Structural Plan Reading for Inspectors</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Special Inspector Degree (17688)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 075A, Soils Inspection and Testing</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Operating Engineers 076A, Structural Plan Reading for Inspectors</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

APPRENTICESHIP SURVEYING

Apprenticeship Surveying-Chainman

The associate in science degree and certificate of achievement in chainman surveying prepares students for a career in surveying and provides the related and supplemental instruction required for apprentice surveyors. Successful completion leads to journeymen status. Employers include land surveying and civil engineering firms, and general construction contractors throughout Southern California. Those interested should contact the Southern California Surveying Apprenticeship Committee and the Apprenticeship Office at Santiago Canyon College.

Chainman Degree (13230)

Major requirements* for the associate degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Surveying 030, Labor Relations</td>
<td>0.5</td>
</tr>
<tr>
<td>Apprenticeship Surveying 040, Standard First Aid</td>
<td>0.2</td>
</tr>
<tr>
<td>Apprenticeship Surveying 041, Chainman Apprentice 1</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Surveying 042, Chainman Apprentice 2</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Surveying 043, Chainman Apprentice 3</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Surveying 044, Chainman Apprentice 4</td>
<td>4</td>
</tr>
<tr>
<td>Apprenticeship Surveying 045, Chainman Apprentice 5</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>20.7</strong></td>
</tr>
</tbody>
</table>

Chainman Certificate of Achievement (21667)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Surveying 030, Labor Relations</td>
<td>0.5</td>
</tr>
<tr>
<td>Apprenticeship Surveying 040, Standard First Aid</td>
<td>0.2</td>
</tr>
<tr>
<td>Apprenticeship Surveying 041, Chainman Apprentice 1</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Apprenticeship Surveying-Chief of Party

The associate in science degree and certificate of achievement in surveying technology prepares students for career advancement in surveying. If combined with appropriate field experience, completion of the program may lead to employment as party chief and eventually to professional California state licensing as a land surveyor. The Chief of Party leads the work of a survey party in surveying Earth’s surface to determine precise locations and measurements. They are responsible for checking the accuracy of the survey party’s work, making accurate measurements, and solving survey problems. Those interested should contact the Southern California Surveying Apprenticeship Committee and the Apprenticeship Office at Santiago Canyon College.

Chief of Party Degree (11990)

Major requirements* for the associate in science degree:

Course | Units
--- | ---
Apprenticeship Surveying 121, Plane Surveying and Coordinate Geometry | 3
Apprenticeship Surveying 122, Advanced Coordinate Geometry | 3
Apprenticeship Surveying 123, Laptop Surveying/Aerial Photogrammetry | 3
Apprenticeship Surveying 124, Plan Reading and Subdivision Surveying | 3
Apprenticeship Surveying 125, Major Project Plans and Survey Layout | 3
Apprenticeship Surveying 126, Control and Geodetic Surveying | 3
Apprenticeship Surveying 127, U.S. Public Land Surveys | 3
Apprenticeship Surveying 128, Property Surveys and Legal Descriptions | 3

**Electives** | 6

TOTAL 30

*Students in A.A. Degree Transfer Program must enroll in 100, or 200 level courses.


Chief of Party Certificate of Achievement (21666)

Major requirements for the certificate of achievement:

Course | Units
--- | ---
Apprenticeship Surveying 121, Plane Surveying and Coordinate Geometry | 3
Apprenticeship Surveying 122, Advanced Coordinate Geometry | 3
Apprenticeship Surveying 123, Laptop Surveying/Aerial Photogrammetry | 3
Apprenticeship Surveying 124, Plan Reading and Subdivision Surveying | 3
Apprenticeship Surveying 125, Major Project Plans and Survey Layout | 3
Apprenticeship Surveying 126, Control and Geodetic Surveying | 3
Apprenticeship Surveying 127, U.S. Public Land Surveys | 3
Apprenticeship Surveying 128, Property Surveys and Legal Descriptions | 3

**Electives** | 6

TOTAL 24

ART

Art Degree (11911)

The associate degree in art provides students with an opportunity for individual creative stimulus and development. Completion of the associate in arts degree also prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree or into a professional art school. Possible careers in fine arts are art education, interior design, gallery operation, art merchandising, studio artist, illustration, art criticism, computer graphics and animation and related fields.

Major requirements* for the associate in arts degree:

Course | Units
--- | ---
Art 100/100H, Introduction to Art Concepts | 3
Art 101, Survey of Western Art History I: Prehistory through the Middle Ages | 3
Art 102, Survey of Western Art History II: Renaissance through the Twentieth Century | 3
Art 110, Two-Dimensional Design | 3
Art 111, Three-Dimensional Design | 3
Art 130, Introduction to Drawing | 3
Art 131, Beginning Life Drawing | 3
Art 141, Beginning Painting | 3

**Electives** | 6

TOTAL 30


Art-Graphic Design Degree (11921)

The associate degree in graphic design prepares students for entry into the broad field of visual communication, with an emphasis on the development of problem solving in the practical application of graphic design. These applications include design for the print media, advertising, architectural and environmental graphics, packaging, logos, corporate identity, the web and other electronic media, using both digital media tools as well as traditional hand skills. It also enables students to enter a four-year institution leading to a baccalaureate degree or into a professional art school with a graphic design emphasis.

Major requirements* for the associate in arts degree:

Course | Units
--- | ---
Art 100/100H, Introduction to Art Concepts | 3
Art 110, Two-Dimensional Design | 3
Art 111, Three-Dimensional Design | 3
Art 121A, Fundamentals of Typography | 3
Art 121B, Advanced Typography | 3
Art 122, Graphic Design I | 3
Art 128, Illustration for Graphic Design | 3
Art 130, Introduction to Drawing | 3
Art 131, Beginning Life Drawing | 3
Art 141, Beginning Painting | 3
**Electives** | 3

TOTAL 33


*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.*
Art-Digital Media Arts Certificates

The certificate programs in digital arts reflect the rapidly changing industry of the advertising/graphic design field in relation to graphic design for printed media, the impact of web design on e-commerce, and the integration of motion graphics into this field. The programs are designed with a combination of courses from fine art and digital media to develop technical skills and creativity in the areas of digital imaging, electronic page layout, graphic principles of web design, and interactive design for multimedia. Graduates of these programs will find entry into the profession at various levels with employment opportunities in the fields of advertising, graphic design, printing industry and e-commerce.

Requirements for the certificate:

Core courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 100/100H, Introduction to Art Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Art 110, Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>Art 195, Introduction to Digital Media Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 9

Digital Media Arts Certificate A-
Graphic Design Emphasis (21670)

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core courses (See above)</td>
<td>9</td>
</tr>
<tr>
<td>Art 121A, Fundamentals of Typography</td>
<td>3</td>
</tr>
<tr>
<td>Art 122, Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>Art 130, Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 21

Recommended electives: Art 101, 111, 121B, 128, 129, 131, 139, 141, 221, 228, 229, 230, 231, 232, 250; Computer Science 100.

Digital Media Arts Certificate B-
Web Design Emphasis (11922)

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core courses (See above)</td>
<td>9</td>
</tr>
<tr>
<td>Art 121A, Fundamentals of Typography</td>
<td>3</td>
</tr>
<tr>
<td>Art 122, Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>Art 129, Graphic Design Concepts for the Web</td>
<td>3</td>
</tr>
<tr>
<td>Art 229, Multimedia Applications for the Web</td>
<td>3</td>
</tr>
<tr>
<td>Electives from recommended list</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 24

Recommended electives: Art 111, 121B, 128, 130, 131, 139, 141, 221, 228, 230, 231, 232, 233, 250; Computer Science 100.

BARBERING

(See Apprenticeship Barbering)

BIOLICAL SCIENCE

Biological Science Degree (11856)

The associate degree in biological science prepares students for pre-professional careers and a curriculum in a four-year institution leading to a baccalaureate degree in such areas as microbiology, botany, zoology, and teaching. The biologist is also prepared to enter graduate or professional programs of specialized study such as medicine, dentistry, medical technology, osteopathy, veterinary medicine, agriculture, forestry, optometry, and dental hygiene. See counseling for transfer requirements.

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology 211, Cellular and Molecular Biology</td>
<td>5</td>
</tr>
<tr>
<td>Biology 212, Animal Diversity and Ecology</td>
<td>5</td>
</tr>
<tr>
<td>Biology 214, Plant Diversity and Evolution</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry 219, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry 229, General Chemistry and Qualitative Analysis</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL 25

BOTANY

(See Biological Science Degree for major requirements and counseling for transfer requirements.)

BUSINESS

Business Administration Degree (11857)

The associate degree in business administration enables students to move into a curriculum at a four-year institution leading to a baccalaureate degree. Career opportunities exist in many areas of business administration such as accounting, financial planning and analysis, financial service specialities, management, marketing and sales, production and logistics, and systems and technology development.

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101/101H, Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Economics 120, Principles/Macro</td>
<td>3</td>
</tr>
<tr>
<td>Business 101, Business Law* (see note)</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>3</td>
</tr>
<tr>
<td>Business 105, Legal Environment of Business* (see note)</td>
<td></td>
</tr>
<tr>
<td>Accounting 102/102H, Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Economics 121, Principles/Micro</td>
<td>3</td>
</tr>
<tr>
<td>Business 150, Introduction to Computing and Application Software</td>
<td>4</td>
</tr>
<tr>
<td>Business 222, Business Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following courses** (see note):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business 100, Fundamentals of Business</td>
<td>3</td>
</tr>
<tr>
<td>Business 120/Management 120, Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>Business 125, Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 113, Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 150, Calculus for Biological, Management and Social Sciences</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL 27 or 28

*Students planning for university transfer should be aware that some universities only accept Business 101 for the transfer major (e.g. California State University, Long Beach) while others only accept Business 105 (e.g. California State University, Fullerton) for the transfer major. Please consult the Transfer Planning Guide and meet with a counselor for information about specific universities.

**Students planning for university transfer should be aware that California State University, Fullerton and many other universities require Math 150 for the Business Administration degree. Please consult the Transfer Planning Guide and meet with a counselor for information about specific universities.

Numerous California State University campuses and private colleges and universities offer baccalaureate degrees in Business Administration. In the University of California system, UC Berkeley and UC Riverside offer this degree. Consult the Transfer Planning Guide and meet with a counselor for information about specific programs and transfer requirements.

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Business Management Degree (11859)
The associate degree in business management is designed to enable students to handle basic problems encountered in managing within a business environment including the managing of a marketing program, the making of decisions and problem solving, the coordinating of activities, the influencing of staff, and the understanding of finance. Entry-level careers include management trainees and assistant managers or supervisors.

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101/101H, Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Business 100, Fundamentals of Business</td>
<td>3</td>
</tr>
<tr>
<td>Business 120/Management 120, Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>Business 222, Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 113, Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two courses from the following:
- Business 105, Legal Environment of Business 3
- Business 106, International Business Culture 3
- Business 121, Human Relations and Organizational Behavior 3
- Business 125, Introduction to International Business 3
- Business 127, Introduction to E-Commerce 3
- Business 150, Introduction to Computing and Application Software 4
- Management 135, Human Resource Management 3
- Marketing 111, Retail Management 3

TOTAL 22-23

Students intending to obtain a bachelor's degree in Business Management should consult the major requirements for upper-division standing listed under the Business Administration major. For other related majors, look under Management.

Business Management-Entrepreneurship
The associate degree and certificate of achievement in entrepreneurship is designed to assist the student in the development of fundamental skills necessary to open and operate a small business and/or to continue the pursuit of a bachelor's degree at a four-year college or university. Students intending to obtain a bachelor's degree in Entrepreneurship should consult the major requirements for upper-division study listed under the Business Administration major.

Entrepreneurship Degree (11860)

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101/101H, Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Business 120/Management 120, Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>Business 170, Principles of Small Business</td>
<td>3</td>
</tr>
<tr>
<td>Business 171, Business Plan for Small Business</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 113, Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Select ONE of the following 3 unit courses:
- Business 125, Introduction to International Business 3
- Business 175, Online Entrepreneurship

TOTAL 19

Entrepreneurship Certificate of Achievement (21635)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101/101H, Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Business 120/Management 120, Principles of Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Carpentry
(See Apprenticeship Carpentry)

Chemistry Degree (11933)
The associate degree in chemistry provides basic courses for a wide variety of occupations, or prepares the student to enter a curriculum in a four-year institution leading to a baccalaureate degree. The major fields of chemistry are inorganic and organic chemistry, biochemistry, and chemical engineering. These fields provide career opportunities in industry, research, and teaching, and also entry into graduate or professional programs such as medicine, pharmacy and other related health fields.

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 219, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry 229, General Chemistry and Qualitative Analysis</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics 180/180H, Analytical Geometry and Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 249, Organic Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry 259, Organic Chemistry II</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL 24

Child Development
(See Human Development-Early Childhood)

Communication Degree (11929)
The associate degree in communication provides training for communicating and dealing with people. Completion of the associate in arts degree in communication prepares students to: (1) Communicate with clarity and accuracy, and in diverse environments, (2) Act with awareness of self and both the local and global communities of persons, (3) Think critically, creatively and reflectively, and (4) Learn about self and others, academic and professional issues. The associate in arts in communication degree prepares the student to move into a curriculum at a four-year institution leading to a baccalaureate degree, and then into careers in the field of business, industry, government, social service, or education in such areas as teaching, public speaking, consulting, law, announcing, public speaking and public relations.

Major requirements* for the associate in arts in communication degree:
**Course Units**

**Relationship Emphasis, 3 units**
- Communication 100/100H, Introduction to Interpersonal Communication
  OR
- Communication 101, Group Dynamics

**Delivery Emphasis, 3 units**
- Communication 110, Public Speaking
  OR
- Communication 111, Argumentation and Debate

**Diversity Emphasis, 3 units**
- Communication 120/120H, Introduction to Intercultural Communication
  OR
- Communication 225/225H, Gender Communication

**Performance Emphasis, 3 units**
- Communication 130, Forensics Team (1-2)
  OR
- Communication 131, Individual Events (1-2)
  OR
- Communication 132, Team Events (1-2)
  OR
- Communication 133, Voice and Diction for Effective Communication (3)
  OR
- Communication 134, Oral Interpretation (3)
  OR
- Communication 135, Readers Theatre (3)
  OR
- Communication 230, Forensic Team (1-2)
  OR
- Communication 231, Individual Events (1-2)
  OR
- Communication 232, Team Events (1-2)

**Required Electives, 6 units:**
- Any of the above courses not already completed, but no more than 2 additional units of Communication 130, Communication 131, Communication 132, Communication 230, Communication 231, or Communication 232 (1-2)
  OR
- Communication 102, Listening (1.5)
  OR
- Library and Information Sciences 103, Advanced Internet Research (1)

**TOTAL 18**

**COMPUTER RELATED PROGRAMS**

Santiago Canyon College offers two major programs which are described below.

**Computer Information Systems**

Computer Information Systems (CIS) is a program for students interested in the application of computer hardware and software to business. CIS courses prepare students for entry-level positions in programming, networking, or computer support. These courses may be used for job advancement, an Associate Degree or Certificate of Competency, or transfer to a four-year institution. CIS courses cover major programming languages (Visual BASIC, C++, Java) as well as software used in business for database management, spreadsheets, and networking. The introductory course for the CIS program is Business 150.

**Computer Science**

Computer Science courses are designed to meet the varying goals of students interested in employment or education in the computer field. There are courses on specific languages for professionals who want to supplement their skills with the knowledge of a current programming language (PC assembler, C++, Visual BASIC, Java). A certificate in computer science can be earned by those students desiring to enter the workplace at entry-level positions. Also, an Associate Degree can be earned by those students desiring to transfer to a four-year institution with a major in Computer Science.

The Computer Science courses provide instruction in low level and high level languages, intermediate and advanced techniques in programming, and hardware organization. Refer to Computer Science in the courses section of this catalog and to the schedule of classes for specific information.

**Computer Related Programs-Computer Information Systems**

The associate degree and certificate of achievement in Computer Information Systems is concerned with the development of procedures which are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Graduates of the program are prepared for employment as trainees in information systems, computer programming, networking and systems analysis. Completion of the degree provides background for curriculum at a four-year institution such as the California State University system at Fullerton or Pomona.

Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major requirements for upper-division standing listed under the Business Administration major at the school of their choice.

**Computer Information Systems Degree (11902)**

**Major requirements* for the associate in science degree:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science 105, Visual BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 205, Advanced Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>Business 150, Introduction to Computing and Application Software</td>
<td>4</td>
</tr>
<tr>
<td>Computer Information Systems 106, Microsoft Excel</td>
<td>3</td>
</tr>
<tr>
<td>Computer Information Systems 108, Microsoft Access</td>
<td>3</td>
</tr>
<tr>
<td>Computer Information Systems 128, Introduction to Networking Technology</td>
<td>3</td>
</tr>
<tr>
<td>Three (3) units taken from the following electives:</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 101 or 101H, 102, 102H, Computer Information Systems 103, 110, 130, 132, 134, 135, 144, 146, Computer Science 112, 121, 206, 213.</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL 22**

**Computer Information Systems Certificate of Achievement (21647)**

**Major requirements for the certificate of achievement:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science 105, Visual BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 205, Advanced Visual Basic</td>
<td>3</td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.*
Business 150, Introduction to Computing and Application Software 4  
Computer Information Systems 106, Microsoft Excel 3  
Computer Information Systems 108, Microsoft Access 3  
Computer Information Systems 128, Introduction to Networking Technology 3  

Three (3) units taken from the following electives:  
TOTAL 22

Web Page Designer Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Information Systems 124, Introduction to Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>Computer Information Systems 126, Web Site Development for Business</td>
<td>3</td>
</tr>
<tr>
<td>Computer Information Systems 130, HTML</td>
<td>3</td>
</tr>
</tbody>
</table>

Three (3) units taken from the following electives:  
Computer Information Systems 122, 128, 132, 134.  
TOTAL 12

Web Programming Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science 105, Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>Computer Information Systems 130, HTML</td>
<td>3</td>
</tr>
<tr>
<td>Computer Information Systems 132, JavaScript</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 205, Advanced Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 206, Visual Basic for Web Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Computer Related Programs-Computer Science

The associate degree and certificate of achievement in computer science leads to entry-level employment in computer science, engineering and other areas where high aptitude in computer programming is recognized. The program prepares students for careers as engineering aides, scientific computing technicians and junior programmers. The program also prepares students to transfer to a university with a major in Computer Science.

Computer Science Degree (11903)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science 100/100H, The Computer and Society</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 111, Introduction to Computer Organization</td>
<td>4</td>
</tr>
<tr>
<td>Computer Science 119, Fundamentals of Assembly Programming</td>
<td>4</td>
</tr>
<tr>
<td>Computer Science 120, Introduction to Programming</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 121, Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 131, Data Structures Concepts</td>
<td>3</td>
</tr>
</tbody>
</table>

Select ONE course from the following:  
Computer Science 112, Java Programming  
Computer Science 205, Advanced Visual Basic  
Computer Science 213, C# Programming  
TOTAL 15

Applied Robotics and Embedded Programming Certificate

The Embedded Programming certificate in computer science will lead to entry-level employment in computer science, engineering and other areas where high aptitude in computer programming is recognized. The program prepares students for careers as robotics technicians, engineering technicians, and junior programmers.

Requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science 157, Introduction to Robotics Programming</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 257, Applied Robotics and Embedded Programming</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 205, Advanced Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 112, Java Programming</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 213, C# Programming</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Cosmetology

The associate degree and certificate of achievement in cosmetology is designed to exceed minimum Board of Cosmetology standards. A combination of lecture and laboratory instruction includes personal hygiene and grooming; salesmanship and skills in serving the public; antisepsis, bacteriology, sterilization, and principles of sanitation; use of electrical appliances and principles of electricity; safety requirements in operation of cosmetic materials; laws and administrative regulations. Proficiencies to be developed include hairdressing, chemical waving and straightening, haircutting and shaping, hair coloring, scalp and hair treatments, facials, manicuring, and operation of a beauty salon.

The student may enroll at any time. Students should be prepared to purchase a basic cosmetology kit. Courses are offered on an open enrollment basis.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cosmetology 040, Cosmetology</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>38</td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Cosmetology Certificate of Achievement (21674)

Major requirements for the certificate of achievement:

Course Units
Cosmetology 040, Cosmetology 38
TOTAL 38

Esthetician Certificate

The certificate in Esthetician is designed to exceed minimum California State Board of Cosmetology standards. A combination of lecture and laboratory instruction includes personal hygiene and grooming; salesmanship and skills in serving the public; bacteriology, sterilization and sanitation; use of electrical machines and appliances and principles of electricity; safety requirements in operation of a skin care salon; fundamentals of physiology; principles of chemistry and composition of cosmetic materials; fundamentals of nutrition; laws and administrative regulations; skin care techniques; make up.

The student may enroll at any time. Students should be prepared to purchase basic skin care tools. Courses are offered on an open enrollment basis.

Major requirements for the certificate:

Course Units
Cosmetology 080, Esthetician 13
TOTAL 13

Manicuring Certificate

The certificate in manicuring is designed to exceed minimum California State Board of Cosmetology standards. A combination of lecture and laboratory instruction includes personal hygiene and grooming; salesmanship and skills in serving the public; antisepsis, bacteriology, sterilization, and principles of sanitation; use of electrical appliances and principles of electricity; safety requirements in operation of a nail salon; fundamentals of physiology; principles of chemistry and composition of cosmetic materials; laws and administrative regulations.

The student may enroll at any time. Students should be prepared to purchase a basic manicuring kit. Courses are offered on an open enrollment basis.

Major requirements for the certificate:

Course Units
Cosmetology 050, Manicuring 8
TOTAL 8

Recommended electives: Cosmetology 040.

DATA PROCESSING
(See Computer Information Systems)

ECONOMICS

Economics Degree (11943)

The associate degree in economics is a program of basic courses which enable students to move into a curriculum in a four-year institution leading to a baccalaureate degree. Economics prepares the student for a number of career opportunities such as accounting and marketing in the areas of business, government and teaching.

Major requirements* for the associate in arts degree:

Course Units
Accounting 101/101H, Financial Accounting 4
Accounting 102/102H, Managerial Accounting 4
Economics 120, Principles/Macro 3
Economics 121, Principles/Micro 3
Social Science 219/219H, Statistics and Probability 4
Mathematics 121/121H, Statistics and Probability 4
Business 150, Introduction to Computing and Application Software 4
Mathematics 150, Calculus for Biological, Management and Social Sciences 4
TOTAL 22

EDUCATION

Education/Teaching

Students planning to teach in the elementary and secondary schools may begin preparation at Santiago Canyon College. The college offers programs of study which fulfill lower-division requirements for most university teacher credential programs.

Suggested Elementary Teaching Emphasis

Liberal Studies and Child Development are the two most common university majors of students who are planning to enter teacher preparation programs for an elementary teaching credential. However, any transfer major leading to a bachelor's degree will fulfill admission requirements for teacher credential programs. Students should work with an SCC Counselor to assist them in choosing general education courses that will support their subject matter competency. Some universities offer students the option of obtaining a bachelor's degree and a credential simultaneously. These types of programs are called "integrated" teaching programs and are best for students who have decided early to pursue a teaching credential. Planning for this type of program involves specific courses for the major and general education. Students are advised to work with an SCC counselor to plan this course of study.

Santiago Canyon College offers an Elementary Education degree, shown below, that has been designed to assist students in meeting the course requirements for most transfer elementary teaching programs and prepares them for California subject matter requirements. Santiago Canyon College also offers a course, Counseling 118, Self-Exploration and the Teaching Profession that has been developed to assist students in meeting the course requirements for most university teacher credential programs.

Students planning to teach in the elementary and secondary schools may begin preparation at Santiago Canyon College. The college offers programs of study which fulfill lower-division requirements for most university teacher credential programs.

Elementary Education Degree (17759)

The associate degree in elementary education is designed to prepare students for transfer to a four-year university traditional or integrated teacher preparation program. It incorporates the elementary subject matter requirements for the CSU Lower-Division Transfer Pattern (LDP) as established by the California Teacher Credentialing Commission. The degree program requirements, and the general education recommended electives below, provide students in content areas for the California Subject Examinations for Teachers (CSET) of Multiple Subjects. Additionally, the degree curriculum may also serve as preparation for paraprofessional positions in the K-12 classroom meeting unit requirements for paraprofessionals as established by the No Child Left Behind Act.

Major requirements* for the associate in arts degree:

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
**SCC Instructional Programs**

### Course Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling 118, Self-Exploration and the Teaching Profession</td>
<td>2</td>
</tr>
<tr>
<td>Education 101, Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 200, Introduction to Classroom Teaching</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 107, Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>Earth Science 115, Earth Science for Educators</td>
<td>4</td>
</tr>
<tr>
<td>Math 203, Math for Future Elementary Teachers</td>
<td>4</td>
</tr>
<tr>
<td>English 270, Children's Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 22

**Special Education Paraprofessional Certificate**

The successful completion of this certificate will prepare the student for an entry-level position requiring practical skills and knowledge to work with persons with disabilities in a variety of educational settings. This certificate program also supports the requirements of federal legislation that all paraprofessionals/instructional assistants/aides in Title I schools be “highly qualified”. In addition, the courses introduce the student to career opportunities in special education or other disability related fields and/or provide major preparation for transfer to four-year institutions to continue a course of study in special education.

**Requirements for the certificate:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling 118, Self Exploration and the Teaching Profession</td>
<td>2</td>
</tr>
<tr>
<td>Human Development 107, Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 157, Introduction to Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 121, School Age Child Care Activities</td>
<td>3</td>
</tr>
<tr>
<td>Communication 110, Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 15

**Suggested Secondary Teaching Emphasis**

Teaching at the secondary level (high school and middle school) requires a single subject credential. Students major in the subject they plan to teach and pass a subject matter competency exam or complete a state approved list of courses in the discipline. Students are advised to work with an SCC counselor to plan this course of study. EDUC 204 and EDUC 210, offered at SCC, are recommended prerequisites for secondary credential programs.

**After School Program Assistant Certificate**

The After School Program Assistant Certificate is intended to prepare a student for an entry-level position requiring practical skills and knowledge to work with children in an after-school care, tutoring, or mentoring program. Completion of this certificate leads to state certification for a School Age Assistant Permit.

**Requirements for the certificate:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 113, Tutoring Reading in Elementary Schools</td>
<td>1</td>
</tr>
<tr>
<td>Counseling 118, Self Exploration and the Teaching Profession</td>
<td>2</td>
</tr>
<tr>
<td>Human Development 120, Development of the School Age Child</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 121, School Age Child Care Activities</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 060, Elementary Algebra*</td>
<td>0-4</td>
</tr>
<tr>
<td>English 061, Introduction to Composition*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

**TOTAL** 9-16

**Electrician**

**General Electrician**

The associate degree and certificate of achievement for the general electrician provides instruction for those seeking a career as an electrician. This meets the state requirements as an electrician trainee program.

**General Electrician Degree (18791)**

**Major requirements** for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrician 041, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 042, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 043, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 044, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 045, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 046, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 047, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 048, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 049, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 050, General Electrician</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 051, Quality Safety Program and First Aid</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**TOTAL** 31.5

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.*
General Electrician Certificate of Achievement (18790)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrician 041, General Electrician 1</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 042, General Electrician 2</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 043, General Electrician 3</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 044, General Electrician 4</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 045, General Electrician 5</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 046, General Electrician 6</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 047, General Electrician 7</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 048, General Electrician 8</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 049, General Electrician 9</td>
<td>3</td>
</tr>
<tr>
<td>Electrician 050, General Electrician 10</td>
<td>3</td>
</tr>
</tbody>
</table>

*Electives 1.5

**TOTAL 31.5

ELECTRICITY-INDUSTRIAL

(See also Apprenticeship Electricity)

ENGLISH

English Degree (11928)

The associate degree in English is designed to develop proficiency in written communication and in the understanding of human nature through the study of language and literature. Completion of the degree program prepares students to pursue a major in English leading to a baccalaureate degree.

Major requirements for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101/101H, Freshman Composition</td>
<td>4</td>
</tr>
<tr>
<td>English 102/102H, Literature and Composition</td>
<td>4</td>
</tr>
<tr>
<td>English 103/103H, Critical Thinking and Writing AND Completion of one of the following sequences: English 231-232, Survey of English Literature OR English 241-242, Survey of American Literature OR English 271-272, Survey of World Literature</td>
<td>12</td>
</tr>
<tr>
<td>*Electives</td>
<td>12</td>
</tr>
</tbody>
</table>

**TOTAL 30

*12 units of electives to be selected from any 200 or above English language or literature class including those above not taken as part of the 6 unit requirement. But no more than 3 units in either English 211, 212, 214, or 215.

Note: Students planning to transfer to 4-year schools should consult with English departments at those institutions regarding specific lower-division requirements and unit limits.

ENTREPRENEURSHIP

(Listed after Business Management)

FOREIGN LANGUAGES

(See Modern Languages)

GEMOLOGY

The associate degree and certificate of achievement in gemology provides technical and practical theory and knowledge in diamonds and colored stones including laboratory grading, identification and evaluation of gems. Employment opportunities upon completion of this program: jewelry appraiser, diamond and colored stones sales, jewelry buyer, jewelry wholesaler and laboratory gemologist.

Gemology Degree (11874)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gemology 011, Introductory Colored Stones</td>
<td>4</td>
</tr>
<tr>
<td>Gemology 012, Advanced Colored Stones</td>
<td>4</td>
</tr>
<tr>
<td>Gemology 020, Diamonds</td>
<td>4</td>
</tr>
</tbody>
</table>

Plus 6 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gemology 029, The Jewelry Profession (3) OR Gemology 030, Antique and Period Jewelry (3) OR Gemology 040, Appraisal Theory and Practice (3) OR Gemology 050, Pearls (3)</td>
<td>6</td>
</tr>
</tbody>
</table>

**TOTAL 18

Recommended electives: Gemology 015.

Gemology Certificate of Achievement (21644)

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gemology 011, Introductory Colored Stones</td>
<td>4</td>
</tr>
<tr>
<td>Gemology 012, Advanced Colored Stones</td>
<td>4</td>
</tr>
<tr>
<td>Gemology 020, Diamonds</td>
<td>4</td>
</tr>
</tbody>
</table>

Plus 6 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gemology 029, The Jewelry Profession (3) OR Gemology 030, Antique and Period Jewelry (3) OR Gemology 040, Appraisal Theory and Practice (3) OR Gemology 050, Pearls (3)</td>
<td>6</td>
</tr>
</tbody>
</table>

**TOTAL 18

Recommended electives: Gemology 015.

GEOGRAPHY

Geography Degree (11945)

The associate degree in geography provides students with an interdisciplinary background for entry into a curriculum at a four-year institution leading to a baccalaureate degree with career opportunities in a wide range of jobs in government, such as Bureau of Census, C.I.A., D.E.A., U.S.G.S., Department of Immigration and Naturalization, Department of State; and in private industry, such as planning market research, land use analysis, transportation, travel and tourism, and education.

Major requirements* for the associate in arts degree:

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Course Units
Geography 100/100H, World Regional Geography 3
Geography 101, Physical Geography 3
Geography 102, Cultural Geography 3
Recommended Electives 9
TOTAL 18

Recommended electives must be chosen from Category A and Category B below with a minimum of 3 units from each category.

Category A
Anthropology 100/100H; Economics 120; History 101/101H, 102/102H; Political Science 201, 220.

Category B
Anthropology 101; Astronomy 109, 110/110H, 140; Biology 200, 259; Environmental Studies 200, 259; Geology 101, 101L, 111, 112, 142, 150, 162, 164, 166, 168, 170, 172, 174, 176, 178, 201; Physical Science 117, 118; Survey/Mapping Sciences 150.

It is strongly recommended that geography majors transferring to the CSU or UC system complete Foreign Language courses at the 201 and 202 level, and Social Sciences 219/219H or Mathematics 219/219H.

GEOLOGY

Geology Degree (1934)
The associate degree in geology prepares students for transfer to a four-year college or university to complete a baccalaureate degree in a geoscience major. Geoscientists find employment with environmental companies that clean up and monitor pollution problems. Geotechnical companies also employ geoscientists to evaluate risk from earthquakes, landslides, and other geological hazards. Oil and mining companies employ geoscientists to find new resources. The federal, state, county, and city governments also employ geoscientists for many of the same functions, as well as for geoscience research, and to monitor compliance with environmental regulations. Universities, colleges, and museums offer opportunities for teaching and/or research.

Units used to satisfy the general education requirements may also be used to satisfy the Geology Degree requirements.

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology 101, Introduction to Geology</td>
<td>3</td>
</tr>
<tr>
<td>Geology 101L, Introduction to Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Geology 201, Introduction to Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>Geology 142, Natural Disasters</td>
<td>3</td>
</tr>
<tr>
<td>Geology 150, Introduction to Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry 219, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Geology 260, Introduction to Mineralogy and Crystallography (4)</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Chemistry 229, General Chemistry and Qualitative Analysis (5)</td>
<td>4</td>
</tr>
</tbody>
</table>

Recommended electives: Biology 211, 212, 214; Chemistry 229; Earth Science 115; Geology 111, 112, 113, 142, 150, 162, 164, 166, 168, 173, 174, 176, 178, 180, 260; Mathematics 180/180H, 185, 280; Physics 210, 211, 217, 227, 237, 279, 289.

HEAVY EQUIPMENT OPERATOR AND REPAIR
(See Apprenticeship Heavy Equipment Operator)

HISTORY

History Degree (11944)
The associate degree in history provides a basic program to aid students in thinking critically about one’s self, one’s cultural heritage, social and economic processes, and national and international affairs. Completion of the degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree and eventually into careers with government agencies, libraries or museums, research programs in business, journalism, international organizations, archival work, and work in law, international relations, and business.

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>History 101/101H, World Civilizations to the 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>History 102/102H, World Civilizations Since the 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>History 120/120H, United States to 1865</td>
<td>3</td>
</tr>
<tr>
<td>History 121/121H, United States Since 1865</td>
<td>3</td>
</tr>
<tr>
<td>Choose 3 electives from the following group. Must include at least one History class.</td>
<td>9</td>
</tr>
<tr>
<td>History 124, 127, 133, 152, 162; Political Science 101/101H, 121, 200, 201, 220, 221, 222, 226, 230; Philosophy 112, 118; Economics 120; Geography 100/100H</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 21

HUMAN DEVELOPMENT

Early Childhood Basic Infant-Toddler and Preschool Certificates

The basic infant/toddler and preschool certificates offer students fundamental knowledge about the young child prebirth through the early elementary years providing learning opportunities to meet the social, emotional, physical, cognitive, and education needs of the child. The early childhood certificates emphasize infant/toddler and preschool courses necessary for employment in state-licensed Title 22 and publicly funded Title 5 programs. These certificates are also recommended courses for those who work as licensed child care providers or nannies.

The basic infant/toddler and preschool certificates prepare students for extended study in infant/toddler or early learning to obtain an associate or a baccalaureate degree in child development or employment as a preschool director, teacher, or other specialist working with children and families.

Students must show negative TB results.

Basic Early Childhood Infant/Toddler Certificate

The Basic Early Childhood Infant/Toddler Certificate meets the minimum requirements for beginning early learning professionals employed or seeking employment as teachers and/or aides in privately owned and church affiliated (Title 22) or publically funded (Title 5) programs serving preschoolers 2-5. This certificate is also recommended for licensed Family Day Care Providers or Nannies.

Major requirements for the certificate:

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
A NEGATIVE TB TEST IS REQUIRED FOR COMPLETION OF THIS CERTIFICATE.

Basic Early Childhood Preschool Certificate

The Basic Early Childhood Preschool Certificate meets the minimum requirements for beginning early learning professionals employed or seeking employment as teachers and/or aides in privately owned and church affiliated (Title 22) or publically funded (Title 5) programs serving preschoolers 2-5. This certificate is also recommended for licensed Family Day Care Providers or Nannies.

Major requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development 107, Child Growth and Development (DS1)</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 108A, Observation and Assessment for Early Learning</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 110, Child, Family and Community (DS2)</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 116A, Infant/Toddler Growth and Development (DS4)</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 116B, Programming for Infants and Toddlers (DS4)</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

A NEGATIVE TB TEST IS REQUIRED FOR COMPLETION OF THIS CERTIFICATE.

The School Age Child Certificate

The School Age Child Certificate is intended to prepare a student for an entry or reentry level positions requiring practical skills and knowledge to work with school age children (PreK-Grade 3) in Title 22 or Title 5 after-school care programs. Completion of this certificate leads to a School Age Child's Center Permit.

Requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development 110, Child, Family and Community (DS2)</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 111, Health, Safety, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 120, Development of the School Age Child</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 121, School Age Child Care Activities</td>
<td>3</td>
</tr>
<tr>
<td>Human Development 221, Teaching in a Diverse Society</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

A NEGATIVE TB TEST IS REQUIRED FOR COMPLETION OF THIS CERTIFICATE.

LIBERAL ARTS

Liberal Arts Degree

The integrated curriculum of the Liberal Arts degree provides a broad exposure to the arts, humanities, sciences and social sciences, while offering the opportunity for depth of knowledge within an area of emphasis. The program will enable students to develop an appreciation and understanding of the beauty and values that have shaped and enriched our culture and to develop intellectual maturity, a deeper understanding of themselves and the American heritage. The curriculum provides a basic framework for lifelong individual study as well as preparation for university study.

Requirements* for the associate in arts degree, Liberal Arts:

Complete a minimum of 18 units selected from one of the following Areas of Emphasis:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
</tr>
</tbody>
</table>

Arts, Humanities and Communication; Mathematics and Sciences; Multi-Cultural Studies; or Social and Behavioral Sciences. Students are encouraged to select two or more courses within a single discipline in an “area of emphasis” to expand their depth of knowledge within a discipline. All courses in the area of emphasis must be completed with a letter grade of “C” or better. Students are advised to meet with a counselor to select the area of emphasis most appropriate to their educational goal.

Complete general education Plan A (associate degree only, non-transfer), Plan B (CSU-GE Breadth, CSU transfer) or Plan C (IGETC, UC or CSU transfer). Students are advised to meet with a counselor to select the general education pattern most appropriate to their educational goal.

Units used to satisfy an area of emphasis may be used to satisfy general education requirements.

Area of Emphasis – Arts, Humanities and Communication (18317):

These courses emphasize the study of cultural literacy, humanistic activities and the artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Area of Emphasis – Mathematics and Sciences (18318):
The science courses in this category examine the physical universe, its life forms and its natural phenomena. These courses will assist the student in developing an appreciation of the scientific method and encourage an understanding of the relationships between science and other human activities. The mathematics courses will encourage the understanding of mathematical concepts through the development of quantitative reasoning skills. **Students are required to complete at least one mathematics course within this area of emphasis.** This area of emphasis will provide students with lower-division preparation for a variety of majors within the scientific disciplines, including Astronomy, Biology, Chemistry, Geology, and Physics and will provide preparation for Mathematics majors. Additionally, students may undertake preparation for Nursing, Kinesiology, Public Health and other Health Science majors. Many of the courses will also assist students in prerequisite preparation for graduate programs within the Health Sciences.

Area of Emphasis – Multi-Cultural Studies (18319):
These inter-disciplinary courses promote an appreciation of multicultural influences in contemporary society. Courses in this category encourage students to acquire the knowledge, skills and attitude needed to function effectively in a pluralistic democratic society and to interact, negotiate and communicate with peoples from diverse groups in order to create a civic and moral community that works for the common good. This emphasis will provide students with lower-division major preparation for disciplines within the area of study devoted to culture and society. These majors would include Chicano Studies, Ethnic Studies, Foreign Language, Global Studies, International Development and Women’s Studies.

**Area of Emphasis – Social and Behavioral Sciences (18320):**
Courses in this category emphasize the connection between human behavior and social, political and economic institutions and promote an understanding of how societies and social subgroups operate. Students will be encouraged to apply critical thinking techniques as they evaluate the way individuals act and have acted in response to their societies. The courses will ensure opportunities for students to develop an understanding of the perspectives and methods of inquiry used in the social and behavioral sciences. This area of emphasis will provide students with lower-division major preparation for many disciplines within the social sciences including Criminal Justice, Economics, Political Science, Psychology, Sociology and History.

**MANAGEMENT**
The associate degree and certificate in management is designed to prepare students for various management positions in business, government, and public organizations; to aid existing managers in upgrading their skills; and to assist employees for promotion to management/supervision positions.

**General Management Degree (11861)**

**Major requirements** for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101/101H Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Business 100, Fundamentals of Business</td>
<td>3</td>
</tr>
<tr>
<td>Business 120/Management 120, Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>Business 222, Business Writing</td>
<td>OR</td>
</tr>
<tr>
<td>Management 122, Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select TWO courses from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business 101, Business Law</td>
<td>3</td>
</tr>
<tr>
<td>Business 105, Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>Business 121/Management 121, Human Relations and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Business 125, Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>Business 150, Introduction to Computing and Applications Software</td>
<td>4</td>
</tr>
<tr>
<td>Marketing 113, Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 19-20

**Small Business Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 035, QuickBooks</td>
<td>1.5</td>
</tr>
<tr>
<td>Business 170, Principles of Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>Business 171, Business Plan for Small Business</td>
<td>3</td>
</tr>
<tr>
<td>Business 172/Marketing 172, Small Business</td>
<td>3</td>
</tr>
<tr>
<td>Marketing and Advertising</td>
<td></td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.*
Select ONE of the following 3 unit courses:
- Business 125, Introduction to International Business 3
- Business 127, Introduction to E-Commerce 3
- Business 175, Online Entrepreneurship 3
- Computer Information Systems 126, Web Site Development for Business 3
  TOTAL 13.5

**Supervision Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management 121/Business 121, Human Relations and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
</tr>
</tbody>
</table>

**Human Resource Management Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management 120/Business 120, Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>Management 121/Business 121, Human Relations and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Management 135, Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>Business 105, Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
</tr>
</tbody>
</table>

**Retail Management Certificate of Achievement (11867)**

The program is approved by the Western Association of Food Chains, and persons completing the prescribed courses are eligible to receive both the ECC Certificate of Competence and the WAFC Retail Management Certificate. The WAFC Retail Management Certificate is a specially recognized program designed to prepare individuals for the fast-paced retail industry. This program is also intended to help students develop an understanding of the retail manager's job and the requirements for success in the retail environment.

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101/101H Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Business 120/Management 120, Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>Business 121/Management 121, Human Relations and Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Business 222, Business Writing OR Management 122, Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>Management 120, Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 111, Principles of Retailing</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 113, Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Communication 100/100H, Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>28</td>
</tr>
</tbody>
</table>

**MARKETING**

The associate degree and certificate in marketing is designed to prepare students for various marketing, sales, and retail store management positions; to assist existing marketing managers and sales professionals in upgrading their skills; and to open up new career opportunities within the marketing field. Program content includes selection and buying of merchandise, advertising, sales, product distribution, customer relations, and pricing. The student will then specialize in one of the option areas: general marketing, professional selling, advertising, or retailing management. The certificate program provides practical skills for the student within specific areas of marketing.

**General Marketing Degree (11866)**

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101/101H, Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Business 222, Business Writing OR Management 122, Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>Management 122, Principles of Advertising Marketing 112, Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 115, Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Select a minimum of three units from the following:</td>
<td></td>
</tr>
<tr>
<td>Business 100, Fundamentals of Business (3)</td>
<td>3</td>
</tr>
<tr>
<td>Business 127, Introduction to E-Commerce (3)</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 111, Principles of Retailing (3)</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 114, Professional Selling (3)</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 135, Web Marketing and Promotion (3)</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19</td>
</tr>
</tbody>
</table>

**General Marketing Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing 112, Principles of Advertising Marketing 112, Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 114, Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 115, Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
</tr>
</tbody>
</table>

**Advertising Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing 112, Principles of Advertising Marketing 112, Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 113, Principles of Marketing Marketing 115, Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Marketing 135, Web Marketing and Promotion</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
</tr>
</tbody>
</table>

**Web Marketing Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing 113, Principles of Marketing Marketing 135, Web Marketing and Promotion</td>
<td>3</td>
</tr>
<tr>
<td>Business 127, Introduction to E-Commerce Computer Information Systems 126, Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>OR Computer Information Systems 126, Web Site Development for Business</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.*
Professional Selling Certificate

Course | Units
--- | ---
Marketing 113, Principles of Marketing | 3
Marketing 114, Professional Selling | 3
Business 222, Business Writing | 3
Management 122, Business Communications | 3
Speech Communication 101/101H, Introduction to Interpersonal Communication | 3
TOTAL | 12

MATHEMATICS

Mathematics Degree (11931)

The associate degree in mathematics prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. Employment opportunities are available as mathematicians in government, industry and education.

Major requirements* for the associate in science degree:

Course | Units
--- | ---
Mathematics 180/180H, Analytic Geometry and Calculus | 4
Mathematics 185, Analytic Geometry and Calculus | 4
Mathematics 280, Intermediate Calculus | 4
Mathematics 287, Introduction to Linear Algebra and Differential Equations (S) | 4-5
Mathematics 290, Linear Algebra (4) | 4-5
Mathematics 295, Beginning Differential Equations (4) | 4-5
Computer Science 120, Introduction to Programming | 3
TOTAL | 19-20

Recommended electives: Mathematics 165.

MODERN LANGUAGES

Modern Languages Degree (11925)

The associate degree in languages is designed to meet the needs of both the student who wishes to transfer to a four-year institution and the student who wishes to achieve basic conversational ability in the language. Completion of the associate in arts degree prepares students to move into the curriculum at a four-year institution leading to a baccalaureate degree and then to possible careers requiring multiple languages proficiency.

The Degree in Languages requires the following:

1) Completion of 21 units total
2) Completion of a minimum of 13 units in any one language including the courses numbered 201 and 202.
3) Completion of 5 units in a second language.
4) Completion of 3 units of recommended electives

Major requirements* for the associate in arts degree:

French Courses | Units
--- | ---
French 101, 102, Elementary French I, II | 5-5
French 201, 202, Intermediate French I, II | 5-5
French 194, Conversation and Composition I | 3
French 196, Conversation and Composition II | 3
TOTAL | 21

Recommended Electives:

Any course listed above in a second language numbered 100 or higher, Anthropology 100/100H; Art 101, 102; Communication 100/100H; English 102/102H, 271, 272; Geography 100/100H; History 101/101H, 102/102H, 124; Political Science 101/101H, 220.

PHOTOGRAPHY

(See Geology)

PHILOSOPHY

Philosophy Degree (11930)

The associate degree in philosophy prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. The baccalaureate degree is intended for those students who plan to teach philosophy, or for pre-professional students in such areas as theology and law, and as a foundation for graduate studies in the areas of library science, diplomacy, theoretical physical science and specialized historical studies.

Major requirements* for the associate in arts degree:

Course | Units
--- | ---
Philosophy 106/106H, Introduction to Philosophy | 3
Philosophy 108, Ethics | 3
Philosophy 110/110H, Critical Thinking | 4
Philosophy 111, Introductory Logic | 3
Philosophy 112, World Religions | 3
Philosophy 118, History of Philosophy | 3
Electives | 6
TOTAL | 22

A minimum of six elective units to be selected from the following:

Art 101, 102; English 271, 272; History 101/101H; Library and Information Studies 103; Music 101/101H; Psychology 100/100H.

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
PHYSICS

Physics Degree (11932)

The associate degree in physics prepares students to move into a curriculum at a four-year institution leading to a baccalaureate, and then into careers in applied physics, research and development, and/or as assistant research scientists.

Major requirements* for the associate in science degree:

Course | Units
--- | ---
Physics 217, Engineering Physics I | 4
Physics 227, Engineering Physics II | 4
Physics 237, Engineering Physics III | 4
Mathematics 180/180H, Analytical Geometry and Calculus | 4
Mathematics 185, Analytical Geometry and Calculus | 4
Mathematics 280, Intermediate Calculus | 4
TOTAL | 24

Chemistry courses may be required for upper-division standing (check with a counselor and the Transfer Center).

POLITICAL SCIENCE

Political Science Degree (11946)

The associate degree in political science prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. The baccalaureate degree prepares students for law school, teaching, public relations, journalism, government service on the local, state and national levels, and private employment where government institutions are involved.

Major requirements* for the associate in arts degree:

Course | Units
--- | ---
English 101/101H, Freshman Composition | 4
Political Science 101/101H, Introduction to Government | 3
Students can choose 3 of the following Political Science courses:
Political Science 200/200H, American Political Thought | 3
Political Science 201, Introduction to Comparative Politics | 3
Political Science 220, International Politics | 3
Political Science 226, Contemporary Issues in California Government and Politics | 3
Political Science 230, Political Theory | 3
Choose 3 electives from the following:
TOTAL | 25

Recommended electives: Anthropology 100/100H; Computer Science 100; Economics 120; French 101; History 101/101H, 102/102H, 120/120H, 124, 127, 133, 152, 162; Italian 101; Philosophy 106/106H; Political Science 121, 122, 123, 221, 222; Psychology 100/100H; Sociology 100/100H; Spanish 101/101H.

POWER LINEMAN

(See Apprenticeship Electricity)

PSYCHOLOGY

Psychology Degree (11935)

The associate degree in psychology prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree for specialization in any of more than twenty branches of psychology including child, clinical, personal, vocational and marriage counseling, industrial, mental health, and college teaching. Completion of the two-year program is appropriate for students whose vocational plans include helping people, i.e., teaching, social welfare, probation, criminology, nursing, law, and personnel work.

Major requirements* for the associate in arts degree:

Course | Units
--- | ---
Psychology 100/100H, Introduction to Psychology | 3
Psychology 219, Introduction to Research Methods in Psychology | 3
Social Science 219/219H, Statistics and Probability | 4
Mathematics 219/219H, Statistics and Probability | 4
Two courses from the following psychology electives: | 6
Psychology 157, Introduction to Child Psychology (3)
Psychology 170, Multicultural Psychology (3)
Psychology 200, Introduction to Biological Psychology (3)
Psychology 230, Psychology and Effective Behavior (3)
Psychology 240, Introduction to Social Psychology (3)
Psychology 250, Introduction to Abnormal Psychology (3)
One additional elective from the psychology courses above or from the following: | 3
Anthropology 100/100H, 101; Biology 109/109H, 149; Chemistry 119; Computer Science 100/100H; Interdisciplinary Studies 155; Philosophy 110, 111; Sociology 100/100H.
TOTAL | 19

Courses recommended for upper-division standing (check with a counselor and the transfer school to verify current courses).

PUBLIC WORKS

Project Management Certificate

This certificate is for current, new or future project managers and team members and those who may seek the PMP (Project Management Professional®) designation as a part of their future career plan. The content includes project definition, planning, group dynamics, workplace diversity, team roles and communication techniques, problem solving, evaluation and final reporting on results in both a classroom setting and with opportunities for application.

Requirements for the certificate:

Course | Units
--- | ---
Public Works 080/Business 090, Principles of Project Management | 3
Public Works 081, Applied Project Management | 2
Public Works 082, Project Management: Microsoft Project | 1
Public Works 083, Capstone Project | 1
Choose one course from written or verbal communication | 3
Business 222, Business Writing
Communication 101, Group Dynamics
Communication 110, Public Speaking
Management 122, Business Communications
Choose one course from business law or management | 3
Business 101, Business Law
Business 105, Legal Environment of Business
Management 120, Principles of Management
Management 121, Human Relations and Organizational Behavior
TOTAL | 13

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
PUBLIC WORKS MANAGEMENT

The degree and certificate provide the skills and knowledge required for employment and promotion in the area of public works. The responsibility for the construction and maintenance of transportation corridors, and public structures might be undertaken by the individuals in this field. Understanding of the policies and practices of the various public and private entities is covered along with attention to the needs of the community being served.

Public Works Management Degree (11909)

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works 050, Public Works I</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 051, Infrastructure Construction and Operations</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 061, Plan Interpretation and Cost Estimation</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 062, Public Works II</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 075, Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 080/Business 090, Principles of Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 18

Public Works Construction Inspection Certificate of Achievement (11910)

Public Works Inspectors entering the field or advancing within the field have a designated course of study to improve their employability. Course content is specifically designed to provide the inspectors with coursework relative to the field of inspection and related responsibilities.

Requirements for certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works 055, Public Works Inspection I</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 061, Plan Interpretation and Cost Estimation</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 065, Public Works Inspection II</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 066, Asphalt and Concrete for the Public Works Inspector</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 075, Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 080/Business 090, Principles of Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 18

Public Works Green-Sustainable Building Code Certificate

This certificate meets emerging needs for individuals to achieve competence in knowledge, interpretation, implementation and practice in the areas of Public Works, construction and building inspection and in related environmental careers to understand the new codes for all residential and commercial construction or remodeling in the state of California.

Requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works 061, Plan Interpretation and Cost Estimation</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 075, Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 076, Building Code Fundamentals – Non Structural</td>
<td>2</td>
</tr>
<tr>
<td>Public Works 077, Energy Code and Green Building Code</td>
<td>1</td>
</tr>
<tr>
<td>Public Works 078, Building Code Administration and Code Enforcement Process</td>
<td>2</td>
</tr>
<tr>
<td>Public Works 079, Sustainable Living and Green Building Concepts</td>
<td>1</td>
</tr>
<tr>
<td>Public Works 080/Business 090, Principles of Project Management</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 083, Capstone Project</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL 16

REAL ESTATE

The associate degree and certificate of achievement in real estate is designed for individuals interested in careers in real estate as salespersons, brokers, and real estate industry professionals including mortgage brokers, property managers, title officers, developers and as government employees.

The program is intended to meet the mandatory and elective course requirements students need to sit for the California real estate sales or brokers license exam.

Real Estate Degree (11869)

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate 102, Real Estate Principles</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 103, Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 105, Real Estate Practice</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 106, Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 110, Real Estate Economics</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 112, Real Property Management</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 114, Appraisal Principles and Procedures</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Plus ONE of the following courses:

- Real Estate 116, Residential Real Estate Appraisal (3.5) OR
- Real Estate 117, Residential Report Writing and Case Studies (1) OR
- Business 101, Business Law (3)
- Accounting 101, Financial Accounting (4)

TOTAL 22.5-25.5

Individuals interested in obtaining a California real estate salesperson or broker license are directed to contact the State of California Department of Real Estate at www.dre.ca.gov to ensure they are meeting both current and their individual requirements for licensing and taking the exam.

Real Estate Certificate of Achievement (21639)

Requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate 102, Real Estate Principles</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 103, Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 105, Real Estate Practice</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 106, Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 110, Real Estate Economics</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 112, Real Property Management</td>
<td>3</td>
</tr>
</tbody>
</table>

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Real Estate 114, Appraisal Principles and Procedures 3.5

Plus ONE of the following courses:

Real Estate 116, Residential Real Estate Appraisal (3.5) 1-4
OR
Real Estate 117, Residential Report Writing and Case Studies (1)
OR
Business 101, Business Law (3)
OR
Accounting 101, Financial Accounting (4)

TOTAL 22.5-25.5

Individuals interested in obtaining a California real estate salesperson or broker license are directed to contact the State of California Department of Real Estate at www.dre.ca.gov to ensure they are meeting both current and their individual requirements for licensing and taking the exam.

Real Estate Appraisal Certificate

The certificate in real estate is designed for individuals interested in a career in real estate appraisal of both residential and commercial property. The program is intended to prepare students for the California real estate appraiser license exam, certified residential exam and certified general exam. As well as it provides coursework for real estate professionals.

Requirements for the certificate:

Course Units
Real Estate 102, Real Estate Principles 3
Real Estate 103, Legal Aspects of Real Estate 3
Real Estate 110, Real Estate Economics 3
Real Estate 114, Appraisal Principles and Procedures 3.5
Real Estate 116, Residential Real Estate Appraisal 3.5
Real Estate 117, Residential Report Writing and Case Studies 1

TOTAL 14

Individuals interested in obtaining a Real Estate Appraiser Trainee and Residential license or a Real Estate Appraiser Certified Residential or General license are directed to contact the California State Office of Real Estate (OREA) at www.OREA.ca.gov to ensure they are meeting both current and their individual educational and other requirements for licensing and taking the exam.

Real Estate Salesperson Certificate

The certificate provides students with the coursework necessary to meet the state DRE (Department of Real Estate) educational requirements that qualify an individual to sit for the Salesperson's license exam. It also includes the basic information for a successful career in real estate sales.

Requirements for the certificate:

Course Units
Real Estate 102, Real Estate Principles 3
Real Estate 105, Real Estate Practice 3
Real Estate 103, Legal Aspects of Real Estate AND
Real Estate 110, Real Estate Economics (3) OR
Real Estate 114, Appraisal Principles and Procedures (3.5) 3-3.5

TOTAL 12-12.5

Individuals interested in obtaining a California real estate salesperson or broker license are directed to contact the State of California Department of Real Estate at www.dre.ca.gov to ensure they are meeting both current and their individual requirements for licensing and taking the exam.

SCIENCE

Science Degree (11953)

The associate degree in science is designed to provide students with a foundation in science that will allow transfer to a four-year college or university to complete a baccalaureate science degree in disciplines such as astronomy, biology, biochemistry, chemistry, geology, geophysics, meteorology, oceanography, or physics.

For transfer with upper-division standing, most four-year institutions require a minimum of one-year of calculus and one-year of general chemistry in addition to the courses required in the science major. Check with the Transfer Center or a counselor for specific transfer requirements.

Units used to satisfy the general education requirements may also be used to satisfy the Science Degree requirements.

Requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td></td>
</tr>
<tr>
<td>Mathematics 180/180H, Analytic Geometry and Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 219, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>General Science Emphasis:</td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Units</td>
</tr>
<tr>
<td>Core Courses</td>
<td>9</td>
</tr>
<tr>
<td>Mathematics 185, Analytic Geometry and Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>13</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>26</strong></td>
</tr>
<tr>
<td>Astronomy Emphasis:</td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Units</td>
</tr>
<tr>
<td>Core Courses*</td>
<td>9</td>
</tr>
<tr>
<td>Astronomy 109, Introduction to the Solar System OR</td>
<td>3</td>
</tr>
<tr>
<td>Astronomy 112, Introduction to Cosmology Astronomy 110, Introduction to Stars and Galaxies</td>
<td>3</td>
</tr>
<tr>
<td>Astronomy 140, Astronomy Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics 185, Analytic Geometry and Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Electives*</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>

*Astronomy Emphasis Students may substitute Physics 217 for Chemistry 219.

*Completion of Physics 217/227/237 and/or Mathematics 280 is highly recommended for Astronomy Emphasis Students.

Requirements** for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses**</td>
<td>9</td>
</tr>
<tr>
<td>Biology 211, Cellular and Molecular Biology</td>
<td>5</td>
</tr>
<tr>
<td>Biology 212, Animal Diversity and Ecology OR</td>
<td>5</td>
</tr>
<tr>
<td>Biology 214, Plant Diversity and Evolution Electives**</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

**Biology Emphasis Students may substitute Mathematics 150 for Mathematics 180/180H.

**Completion of Chemistry 229, Biology 212 and 214 is highly recommended for Biology Emphasis Students.

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Chemistry Emphasis:
Course             Units
Core Courses       9
Chemistry 229, General Chemistry and Qualitative Analysis 5
Mathematics 185, Analytic Geometry and Calculus 4
Electives***       8
TOTAL              26

***Completion of Chemistry 239 or Chemistry 249/259 is highly recommended for Chemistry Emphasis Students.

Geology Emphasis:
Course             Units
Core Courses       9
Geology 101, Introduction to Geology 3
Geology 101L, Introduction to Geology Laboratory 1
Geology 201, Introduction to Historical Geology 4
Electives****      9
TOTAL              26

****Completion of Mathematics 185 and either Geology 260 or Chemistry 229 is highly recommended for Geology Emphasis Students.

Physics Emphasis:
Course             Units
Core Courses*****  9
Physics 217, Engineering Physics I 4
Physics 227, Engineering Physics II OR 4
Physics 237, Engineering Physics III 4
Mathematics 185, Analytic Geometry and Calculus 4
Electives*****    5
TOTAL              26

*****Physics Emphasis Students may substitute Mathematics 280 for Chemistry 219.

*****Completion of Physics 227, 237 and Mathematics 280 is highly recommended for Physics Emphasis Students.

Electives for any emphasis of the Science Degree must be selected from the following courses:
Astronomy 109, 110, 112, 140; Biology 109/109H, 109L, 139, 149, 177, 200, 211, 212, 214, 229, 239, 249, 259; Chemistry 119, 209, 210, 219, 229, 249, 259; Earth Science 110, 115; Environmental Studies 200, 259; Geology 101, 101L, 111, 112, 113, 142, 150, 162, 164, 166, 168, 173, 174, 176, 178, 180, 201, 260; Mathematics 185, 280; Physical Science 115; Physics 109, 210, 211, 217, 227, 237, 279, 289.

SIGN LANGUAGE

American Sign Language Certificate of Achievement (11905)
A certificate of achievement in American Sign Language (ASL) is offered as preparation for developing linguistic competency in ASL and readiness for entering a formal Interpreter Training Program. The certificate indicates skill in the use of ASL for personal communication and an introductory awareness of Sign Language Interpreting and other professions working within the Deaf community.

Major requirements for the certificate of achievement:
Course             Units
Sign Language 110, American Sign Language I 3
Sign Language 111, American Sign Language II 3

SOCIAL SCIENCE

Social Science Degree (11937)
The associate degree in social science is designed to provide the student with a better understanding of man's behavior, past and present, the historical and social environmental forces that operate in the world, and the significant problems of the present day. Completion of the degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. Some employment opportunities are available in the teaching of social science.

Major requirements* for the associate in arts degree:
Required Courses
Course             Units
History 101/101H, World Civilizations to the 16th Century OR 3
History 102/102H, World Civilizations Since the 16th Century
History 120/120H, United States to 1865 OR 3
History 121/121H, United States Since 1865
Anthropology 100/100H, Cultural Anthropology OR 3
Sociology 100/100H, Introduction to Sociology
Economics 120, Principles/Macro 3
Political Science 101/101H, Introduction to Government 3
Psychology 100/100H, Introduction to Psychology 3

Select a minimum of 6 units from the recommended electives below:
TOTAL 6

Recommended electives: Anthropology 101, 103; Computer Science 100/100H; English 231, 232, 241-242; Geography 100/100H, History 127, 152, 162; Political Science 200/200H, 201, 220.

SOCIOLOGY

Sociology Degree (11947)
The associate degree in sociology is an interdisciplinary social science program providing students an understanding of interpersonal behavior and social structure, a critical appreciation of contemporary social life, a form of reference for an analysis of human behavior. Completion of the associate in arts degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree.

Major requirements* for the associate in arts degree:
Required courses:

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
Course Units
Anthropology 100/100H, Introduction to Cultural Anthropology 3
Psychology 100/100H, Introduction to Psychology 3
Sociology 100/100H, Introduction to Sociology 3
Sociology 140/140H, Analysis of Social Trends and Problems 3
Selected two courses from the recommended electives: 6
TOTAL 18

Recommended electives: Anthropology 101, 104; Mathematics 219/219H or Social Science 219/219H; Psychology 240/Sociology 240; Sociology 112.

SPeeCH CoMMUniCation
(See Communication)

SUPeRviSion
(See Management)

SURVeY/MaPPing SCienCeS
The associate degree and certificate program in Survey/Mapping provides the student a thorough background in land surveying and mapping in addition to an introduction to collection, manipulation, formatting and mapping of geospatial data. The successful graduate of this program will have the technical expertise necessary for an entry level position in the fields of Geographic Information Systems, Land Surveying, and Digital Photogrammetry. The program also assists those students preparing for the State Land Surveyor-In-Training and Land Surveyor's Exams. The State Board of Registration for Professional Engineers and Land Surveyors will grant one year of experience credit for students completing an Associate Degree in Survey/Mapping Sciences.

Survey/Mapping Sciences - Land Surveying Degree (11906)
Major requirements* for the associate in science degree:

Course Units
Survey/Mapping Sciences 118, Plane Surveying 4
Survey/Mapping Sciences 119, Advanced Plane Surveying 4
Survey/Mapping Sciences 205, Computer Aided Drafting Fundamentals for Land Surveyors OR 3
Survey/Mapping Sciences 206, Advanced Computer Aided Drafting for Surveyors
Survey/Mapping Sciences 221, Advanced Problems in Surveying I 3
Survey/Mapping Sciences 222, Advanced Problems in Surveying II 3
Survey/Mapping Sciences 229, Legal Aspects of Land Surveying I 3
Survey/Mapping Sciences 230, Legal Aspects of Land Surveying II 3
Public Works 080/Business 090, Principles of Project Management 3
TOTAL 26

Survey/Mapping Sciences - Land Surveying Technician Certificate

Requirements for the certificate:

Course Units
Survey/Mapping Sciences 118, Plane Surveying 4
Survey/Mapping Sciences 119, Advanced Plane Surveying 4
Survey/Mapping Sciences 205, Computer Aided Drafting Fundamentals for Land Surveyors OR 3
Survey/Mapping Sciences 206, Advanced Computer Aided Drafting for Surveyors
Survey/Mapping Sciences 229, Legal Aspects of Land Surveying I 3
Survey/Mapping Sciences 230, Legal Aspects of Land Surveying II 3
TOTAL 17

SURVEYING
(See also Apprenticeship Surveying)

TELEVISION/VIDEO COMMUNICATIONS

Television/Video Communications Certificate - Media Studies
Emphasis on preparing students for careers as producers and executives in the cable, television, and film industries as well as those who wish to be media teachers, critics and historians. Students will gain theoretical knowledge about the history, development, and societal impact of the media in the United States and the world as well as practical experience in dealing with production aesthetics and terminology, basic scriptwriting skills, and business and budgeting applications relating to the electronic media.

Course Units
Television/Video Communications 100, Introduction to Electronic Media: TV, Radio, Film and the Internet 3
Television/Video Communications 101, Television and Society: A Visual History 3

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
The associate degree and certificate of achievement in water utility science covers basic concepts in the operation of water treatment plants, controlling and monitoring water deliveries, water quality control methods, water and wastewater pumping equipment, electrical systems repair, and pump repair and maintenance. The program is designed to train new personnel and to enable those already working in the field to upgrade their skills. Typically, the new employee starts as an entry level worker, then advances to other higher levels including lead operator, Operations and Maintenance Supervision, Superintendent and/or Manager.

**Water Distribution Degree (11907)**

Major requirements* for the associate in science degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Utility Science 050, Water Mathematics and Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 104, Electrical Wiring and Circuits</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 107, California Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 109, Water Distribution Systems</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 131, Water Conservation Practitioner OR</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 204, Water Reclamation and Reuse</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 208, Pumps and Pumping</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 210, Advanced Water Distribution</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 21

**Water Distribution Certificate of Achievement (19625)**

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Utility Science 050, Water Mathematics and Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 104, Electrical Wiring and Circuits</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 107, California Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 109, Water Distribution Systems</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 131, Water Conservation Practitioner OR</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 204, Water Reclamation and Reuse</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 208, Pumps and Pumping</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 210, Advanced Water Distribution</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 21

**Water Treatment Degree (19623)**

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Utility Science 050, Water Mathematics and Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 101, Water Treatment Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 102, Advanced Water Treatment</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 103, Water Chemistry and Bacteriology</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 107, California Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 109, Water Distribution Systems</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 131, Water Conservation Practitioner OR</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 204, Water Reclamation and Reuse</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 21

**Water Treatment Certificate of Achievement (19624)**

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Utility Science 050, Water Mathematics and Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 101, Water Treatment Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 102, Advanced Water Treatment</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 103, Water Chemistry and Bacteriology</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 204, Water Reclamation and Reuse</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 21

**Wastewater/Environmental Sanitation Degree (11908)**

Major requirements* for the associate in arts degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Utility Science 050, Water Mathematics and Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 111, Wastewater Treatment Plant Operations</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 112, Wastewater Treatment Plant Processes</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 116, Collection Systems</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 204, Water Reclamation and Reuse</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 208, Pumps and Pumping</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 18

**Wastewater/Environmental Sanitation Certificate of Achievement (21669)**

Major requirements for the certificate of achievement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Utility Science 050, Water Mathematics and Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 111, Wastewater Treatment Plant Operations</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 112, Wastewater Treatment Plant Processes</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 116, Collection Systems</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 204, Water Reclamation and Reuse</td>
<td>3</td>
</tr>
<tr>
<td>Water Utility Science 208, Pumps and Pumping</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 18

**Water Utility Supervisor Certificate**

This certificate is of interest and value only to those individuals currently holding a California Department of Health Services Distribution Grade 2 or Treatment Grade 2 certification. A course of study for new or future supervisors in the public and private sectors of water distribution and treatment. Covers a selected set of skills and knowledge recognized to provide success in managing work environments. Through the use of practical knowledge and course studies the certificate will encompass projects and its organization and operation; how the public sector functions; supervision; proper communication skills; the management of an organization and the

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*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
people within that organization. Designed in cooperation of the American Water Works Association for preparation of supervisors in the water industries.

Requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works 075, Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 080/Business 090, Principles of Project Management</td>
<td>3</td>
</tr>
<tr>
<td>Public Works 082, Project Management: Microsoft® Project</td>
<td>1</td>
</tr>
<tr>
<td>Management 121/Business 121, Human Relations and Organizational Behavior OR</td>
<td>3</td>
</tr>
<tr>
<td>Management 135, Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>Management 122, Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>Management 123, Supervision</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**WOMEN’S STUDIES**

**Women’s Studies Degree (11938)**

The associate degree in women’s studies is a liberal arts major which is designed to meet the following needs: 1) to help women develop a perspective pertaining to their own self-interest and relate those views to social and cultural factors such as economic necessity, political participation, historical patterns, and ethics; 2) to develop their self-awareness in relation to others; 3) to develop skills of communication and analysis; 4) to prepare for transfer to four-year colleges and schools of professional training; 5) to enrich women’s knowledge of their culture and the rapid developments that are taking place within it.

**Major requirements* for the associate in arts degree:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women’s Studies 101, Introduction to Women’s Studies</td>
<td>3</td>
</tr>
<tr>
<td>Women’s Studies 102, Women in America: Work, Self, Family</td>
<td>3</td>
</tr>
<tr>
<td>Women’s Studies 201, Contemporary Women’s Issues</td>
<td>3</td>
</tr>
<tr>
<td>English 278, Survey of Literature by Women</td>
<td>3</td>
</tr>
<tr>
<td>Exercise Science 110, Women’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>Interdisciplinary Studies 155, Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>History 127, Women in U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

**Recommended electives:** Communication 225/225H, Gender Communication/Honors Gender Communication; Counseling 116; Library and Information Studies 103; Philosophy 108; Sociology 112.

*Major requirements for the associate degrees are in addition to the General Education requirements found on pages 32-40.
ANNOUNCEMENT
OF COURSES

Each course is designated by a number. A descriptive title and the units allowed for the course follow the course number. Courses numbered 100 and above are university parallel courses and are offered for transfer to many colleges and universities. Courses that transfer to the California State University (CSU) or the University of California (UC) will have this designation noted at the end of the course description. There may be a credit limitation for some courses that transfer to the University of California and additional courses may be approved for transferability after the publication of this catalog. Please see a Santiago Canyon College Counselor to develop a transfer education plan. Courses numbered 100 and above followed by the letter “H” are university parallel courses for transfer to colleges and universities and are offered as part of the Santiago Canyon College Honors Program. Students enrolling in these courses must meet the designated prerequisites. Courses numbered less than 100 are not designed for transfer. Since these courses are not ordinarily offered in the universities and four-year colleges, they are not always applicable to the requirements for the bachelor of arts or bachelor of science degrees; however, courses numbered below 100 are applicable to the associate degree unless preceded by the letter “N”. Courses numbered less than 100 preceded by the letter “N” are not applicable to the associate degree and do not count toward graduation but do count toward course load.

Note on Topics Courses 098 and 198:
The college may offer Topics courses, either under 098 (non-transfer) or 198 (transfer) under any discipline listed in the announcement of courses. Topics courses are specialized courses on topics related to the immediate and changing needs of students. They may not be offered every semester, and, after no more than two scheduled offerings, they must be either converted to regular ongoing course status or be deleted.
ACCOUNTING (ACCT)

Accounting 035
QuickBooks
Unit(s): 2
Class Hours: 32 Lecture total.
Preparation of accounting records for businesses using the QuickBooks software in the Windows environment. Topics included customer transactions, vendor transactions, bank reconciliations, reports, company file set up, and customization of QuickBooks.

Accounting 101
Financial Accounting
Unit(s): 4
Class Hours: 64 Lecture total.
Financial accounting for the business administration transfer student. The accounting cycle, corporations, financial statements and principles, Accounting for assets, liabilities and stockholder's equity. CSU/UC

Accounting 101H
Honors Financial Accounting
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
Enriched financial accounting for the business administration transfer student emphasizing a student-oriented exploration of the accounting cycle, asset and liability accounting, corporations, statements and principles. CSU/UC

Accounting 102
Managerial Accounting
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Accounting 101 or 101H.
Managerial accounting for the business administration transfer student. Manufacturing and cost accounting, and the managerial uses of accounting information. Standard costs, budgets, activity based costing, incremental analysis, segment reporting and capital budgeting decisions. CSU/UC

Accounting 102H
Honors Managerial Accounting
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Accounting 101 or 101H; and a high school or college GPA of 3.0 or above.
An enriched and intensive study of managerial accounting for business administration honors transfer students, emphasizing student-oriented exploration of cost accounting, and the managerial uses of accounting information. CSU/UC

Accounting 204
Managerial Cost Accounting
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Accounting 102 or 102H.
Provides the theory of cost behavior, cost accounting and cost control, the use of accounting information for management planning and decision making; cost systems, budgeting and financial performance analysis. CSU

Accounting 205
Intermediate Accounting
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Accounting 102 or 102H.
Second-year accounting dealing with conceptual framework, adjustments, and financial statements, present and future value concepts, cash, investments, receivables, cost and valuation procedures for inventories, accounting for plant and intangible assets. CSU

AMERICAN COLLEGE ENGLISH (ACE)

American College English N42
Developing Academic Writing and Reading
Unit(s): 3
Class Hours: 96 Lecture, 16 Laboratory total.
Prerequisite: Qualifying placement profile total.
Second-year students with some English background receive intensive practice with the basic grammar of English as well as with controlled writing of short paragraphs. This course also develops students' vocabulary, reading and critical thinking skills. Laboratory is required. Grade: Pass/No Pass Only.

American College English N43
Developing Academic Speaking Skills
Unit(s): 2
Class Hours: 32 Lecture total.
Beginning-level students with some English background receive intensive speaking practice to improve conversation skills. This course also develops students' vocabulary and ability to understand short lectures. Concurrent enrollment in ACE N42 is strongly advised. Grade: Pass/No Pass Only.

American College English 052
Expanding Academic Writing and Reading
Unit(s): 3
Class Hours: 96 Lecture, 16 Laboratory total.
Prerequisite: Qualifying placement profile and concurrent enrollment in ACE 053.
Intermediate-level students expand their skills in grammar and in writing paragraphs. This course also strengthens students' vocabulary, reading and critical thinking skills. Laboratory is required.

American College English 053
Expanding Academic Speaking Skills
Unit(s): 2
Class Hours: 32 Lecture total.
Intermediate-level students expand their speaking skills in English. They will practice different types of speaking tasks such as expressing and supporting opinions, restating what others have said, and paraphrasing what they have heard or read. This course also strengthens students' vocabulary and critical thinking skills.

American College English 080
Writing Lab
Unit(s): 0.2
Class Hours: 16 Laboratory total.
This is the ACE Writing Lab course for individualized practice in creating better paragraphs and short essays emphasizing correct grammar and idiomatic expressions. Students work on computers in the Academic Success Center to strengthen grammar, spelling and punctuation skills. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit.

American College English 087
Culturally Speaking
Unit(s): 3
Class Hours: 48 Lecture total.
Communication skills for small group discussions and presentations. Emphasis on building oral fluency and vocabulary through exploration of culture and values and how these values impact life in the U.S. Recommended ACE Level: 102 or above. Advised for ACE students planning to take Communication courses. Laboratory homework may be assigned.
American College English 093
Refining Academic Speaking Skills
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
High-intermediate speaking and listening skills course. Stress and intonation to convey meaning. Use of formal and informal language to achieve a purpose. Students will increase their ability to understand longer lectures and will engage in group discussions. Laboratory is required. Concurrent enrollment in ACE 102 is highly recommended.

American College English 102
Refining Academic Writing and Reading
Unit(s): 3
Class Hours: 96 Lecture, 16 Laboratory total.
Prerequisite: Qualifying placement profile and concurrent enrollment in ACE 053. Students receive intensive practice with sentence combining strategies to improve their writing skills at the paragraph and short essay level. They also expand their vocabulary, reading and critical thinking skills. Laboratory is required. CSU/UC

American College English 116
Introduction to Academic Composition
Unit(s): 3
Class Hours: 64 Lecture, 16 Laboratory total.
Prerequisite: Qualifying placement profile or ACE 102. Advanced students are introduced to common academic writing tasks such as comparing/contrasting and supporting an argument. Students also produce a short research paper. The course emphasizes control of grammar, punctuation and mechanics within student papers. Students will also strengthen critical reading and vocabulary skills. Laboratory is required. CSU/UC

Santiago Canyon College
American College English Program

The Santiago Canyon College American College English/ESL Department offers an intensive program for students who have lived in the U.S. for several years who still require more practice in writing and speaking college-level English, for students who plan to live in the U.S. while attending college, and for students who simply desire greater English fluency to function well in their community.

This following chart shows the sequence of courses in the ACE program.

<table>
<thead>
<tr>
<th>ACE COURSE</th>
<th>CO/PREREQUISITE</th>
<th>+ SUPPORT COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning/Developing</td>
<td>Placement test profile AND ACEN42 students must co-enroll in ACEN43.</td>
<td>ACE 080, Writing Lab (0.2 unit)</td>
</tr>
<tr>
<td>ACEN42, Writing/Reading</td>
<td>3 units, 6 hours/week 16 lab hours total</td>
<td></td>
</tr>
<tr>
<td>ACEN43, Listening/Speaking</td>
<td>2 units, 2 hours/week</td>
<td></td>
</tr>
<tr>
<td>Intermediate/Expanding</td>
<td>Placement test profile OR Credit in ACEN42 AND ACEN052 students must co-enroll in ACEN053.</td>
<td>ACE 080, Writing Lab (0.2 unit) ACE 081, Improving Pronunciation (3 units) Reading 096 (3 units)</td>
</tr>
<tr>
<td>ACEN052, Writing/Reading</td>
<td>3 units, 6 hours/week 16 lab hours total</td>
<td></td>
</tr>
<tr>
<td>ACEN053, Listening/Speaking</td>
<td>2 units, 2 hours/week</td>
<td></td>
</tr>
<tr>
<td>High Intermediate/Refining</td>
<td>Placement test profile OR “C” or above in ACEN052 AND ACEN102 students are strongly encouraged to enroll in ACEN093.</td>
<td>ACE 080, Writing Lab (0.2 unit) ACE 081, Improving Pronunciation (3 units) ACE 087 (3 units) Reading 096 or 097 (3 units) Counseling 113 (3 units)</td>
</tr>
<tr>
<td>ACEN102, Writing/Reading</td>
<td>3 units, 6 hours/week 16 lab hours total</td>
<td></td>
</tr>
<tr>
<td>ACEN093, Listening/Speaking</td>
<td>3 units, 4 hours/week</td>
<td></td>
</tr>
<tr>
<td>Advanced</td>
<td>Placement test profile OR “C” or above in ACEN102</td>
<td></td>
</tr>
<tr>
<td>ACEN116, Intro to Composition</td>
<td>3 units, 4 hours/week</td>
<td></td>
</tr>
</tbody>
</table>

After completion of ACE 116 with a grade of “C” or better, students can register for English 101.

Revised March 3, 2011
Effective 2011-2012
**ANTHROPOLOGY (ANTH)**

**Anthropology 100**  
Introduction to Cultural Anthropology  
Unit(s): 3  
Class Hours: 48 Lecture total. 
A cross-cultural survey of the major areas of cultural anthropology including subsistence patterns, economic and political systems, family and kinship, religion, and cultural change. Also includes contemporary issues facing humankind such as the environment, resource depletion, ethnic conflict, globalization, and warfare. Emphasis is on understanding cultural diversity and cultural universals. **CSU/UC**

**Anthropology 100H**  
Honors Introduction to  
Cultural Anthropology  
Unit(s): 3  
Class Hours: 48 Lecture total. 
Prerequisite: A high school or college GPA of 3.0 or above. 
Seminar style, content enriched for honor students, to provide a critical and extensive exploration of the major areas of cultural anthropology. Includes contemporary issues such as globalization, gender, and ethnic conflict. **CSU/UC**

**Anthropology 101**  
Introduction to Physical Anthropology  
Unit(s): 3  
Class Hours: 48 Lecture total. 
An introduction to humankind's place in nature, including evolutionary theory, principles of genetics, primate evolution and behavior, fossil evidence for human evolution, human biology and variation, growth and adaptability, and biomedical anthropology. Includes practical application of biological anthropology to human problems. **CSU/UC**

**Anthropology 103**  
Introduction to Archaeology  
Unit(s): 3  
Class Hours: 48 Lecture total. 
This is a survey course in world archaeology. Methods of archaeological survey and excavation will be discussed as well as past and current concepts and theories. Material remains such as lithics, bone, ceramics and ecofacts will be discussed as to how they can be interpreted into social, political, economic, religious, and ethnic terms. **CSU/UC**

**Anthropology 104**  
Language and Culture  
Unit(s): 3  
Class Hours: 48 Lecture total. 
General introduction to the processes of human communication. Includes the relationship between language and culture, acquisition of first and second languages, languages in contact, sociolinguistics and the effects of both language and culture on inter/intra group communication. Languages spoken in the local area are used as basis of study. **CSU/UC**

**APPRENTICESHIP BARBERING (ABA)**

**Apprenticeship Barbering 020**  
Pre-Apprentice Barbering  
Unit(s): 0.5  
Class Hours: 40 Lecture total. 
To provide technical information required before application for apprenticeship license from the state Division of Apprenticeship Standards. Grade: Pass/No Pass Only. Open Entry/Open Exit.

**Apprenticeship Barbering 021**  
Barbering Apprentice 1  
Unit(s): 3  
Class Hours: 54 Lecture total. 
Prerequisite: Must be a state-indentured apprentice. 
Provides related and supplemental instruction for beginning apprentice barbers seeking to obtain their master's license. Grade: Pass/No Pass Only. Open Entry/Open Exit.

**Apprenticeship Barbering 022**  
Barbering Apprentice 2  
Unit(s): 3  
Class Hours: 54 Lecture total. 
Prerequisite: Must be a state-indentured apprentice. 
Provides further related and supplemental instruction for beginning apprentice barbers seeking to obtain their master's license. Grade: Pass/No Pass Only. Open Entry/Open Exit.

**Apprenticeship Barbering 023**  
Barbering Apprentice 3  
Unit(s): 3  
Class Hours: 54 Lecture total. 
Prerequisite: Must be a state-indentured apprentice. 
Provides further related and supplemental instruction for advanced apprentice barbers seeking to obtain their master's license. Grade: Pass/No Pass Only. Open Entry/Open Exit.

**Apprenticeship Barbering 024**  
Barbering Apprentice 4  
Unit(s): 3  
Class Hours: 54 Lecture total. 
Provides further related and supplemental instruction for advanced apprentice barbers seeking to obtain their master's license. Grade: Pass/No Pass Only. Open Entry/Open Exit.

**APPRENTICESHIP CARPENTRY (ACA)**

**Apprenticeship Carpentry 002A**  
Building Layout/Transit/Laser Level  
(Formerly Building Layout (TU-103))  
Unit(s): 2  
Class Hours: 40 Lecture total. 
Prerequisite: Must be a state-indentured apprentice. 
Provides related and supplemental instruction for carpentry apprentices in building layout techniques using builders and laser levels to set up batter boards marking the building footprint. Includes use of blueprints and shop drawings. Open Entry/Open Exit.

**Apprenticeship Carpentry 002B**  
Slabs/Interior-Exterior Footings  
(Formerly Slabs and Footings (TU-104))  
Unit(s): 2  
Class Hours: 40 Lecture total. 
Prerequisite: Must be a state-indentured apprentice. 
Provides related and supplemental instruction for carpentry apprentices in how to set and form footing forms based on blueprints and shop drawings. Includes slab construction stressing the importance of a level slab for casting tilt-up panels. Open Entry/Open Exit.

**Apprenticeship Carpentry 003A**  
Tilt-Up Introduction  
(Formerly Hardware Identification (TU-201))  
Unit(s): 2  
Class Hours: 40 Lecture total. 
Prerequisite: Must be a state-indentured apprentice. 
Provides related and supplemental instruction for carpentry apprentices in the layout technique for a typical tilt-up panel. Identification of specific hardware and its application for tilt-up construction using product hardware catalogs used in the industry. Open Entry/Open Exit.
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Apprenticeship Carpentry 003B
Printreading-Panel Layout
(Formerly Tilt-Up Panel Layout (TU-202))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for carpentry apprentices in layout techniques for typical tilt-up panel and the importance of 3-4-5 methods in squaring a panel. Use of blueprints to identify certain openings and the location of finish floor lines and roof lines. Open Entry/Open Exit.

Apprenticeship Carpentry 003D
Printreading-Panel Construction
(Formerly Tilt-Up Panel Construction (TU-204))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for carpentry apprentices in the use of tilt-up blueprints to build and detail an actual tilt-up panel including all embeds, openings, and ledgers. Open Entry/Open Exit.

Apprenticeship Carpentry 004A
Lifting and Bracing Safety
(Formerly Lifting, Bracing and Safety (TU-301))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for carpentry apprentices in the types of bond breakers used. Use of product catalogs and manufacturers' specifications to determine proper use of each product and for securing temporary braces. Safety aspects of rigging and setting panels with the crane. Open Entry/Open Exit.

Apprenticeship Carpentry 004B
Pour-in-Place Wall Forms
(Formerly Pour-in-Place Wall Forms (TU-302))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for carpentry apprentices in the various types of poured in place wall forms, wall systems, and their specific applications. Open Entry/Open Exit.

Apprenticeship Carpentry 004C
Printreading
(Formerly Blueprint Reading for Carpenters (TU-303/8P-11))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction specifications. Includes detailing, openings, finish floor, roof line, sections, and rebar and hardware location. Open Entry/Open Exit.

Apprenticeship Carpentry 005A
Wall-Column Forms/Cutting and Burning
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for carpentry apprentices in wall-column forms/cutting and burning. Covers forming methods and techniques used in the construction of reinforced concrete walls and columns, form design, print reading, estimating, and safe operating and cutting procedures for the oxygen-acetylene torch. Open Entry/Open Exit.

Apprenticeship Carpentry 005B
Site Work/Curb and Gutter
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for carpentry apprentices in the forming methods and techniques used in the construction of site work, curbs and gutters. Covers site work layout, elevation, construction practices, jobsite safety, print interpretation, material identification and site preparation. Open Entry/Open Exit.

Apprenticeship Carpentry 021A
Orientation
(Formerly Orientation/Safety 1 (OR-101))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in the theory and practice of wall framing. Apprentices start by learning to read floor plans, then learn to lay out wall locations, plate and detail, openings and structural connections. Open Entry/Open Exit.

Apprenticeship Carpentry 021B
Safety and Health Certifications
(Formerly Orientation/Safety 2 (OR-102))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in health and safety certifications, safety, and math. Certifications can be earned in forklift, asbestos awareness, American Red Cross/CPR, and Ramset/Redhead low velocity powder actuated tools. Open Entry/Open Exit.

Apprenticeship Carpentry 021C
Basic Wall Framing
(Formerly Wall Framing 1 (F-103))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in wall framing. Beginning with blueprint reading and building codes, apprentices learn to lay out and construct residential and commercial floor systems. Fall protection practices are presented along with construction technology. Open Entry/Open Exit.

Apprenticeship Carpentry 022A
Commercial Floor Framing
(Formerly Floor Framing (F-201))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in commercial floor framing. Beginning with blueprint reading and building codes, apprentices learn to lay out and construct residential and commercial floor systems. Fall protection practices are presented along with construction technology. Open Entry/Open Exit.

Apprenticeship Carpentry 022B
Basic Stairs
(Formerly Stair Building 1 (F-202))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in stair theory, related mathematics, code requirements, and basic layout. Cutting and erecting a straight-run stair. Open Entry/Open Exit.
Apprenticeship Carpentry 022C
Intermediate Stairs
(Formerly Stair Building 2 (F-203))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in stair building; code requirements and handrail construction. Open Entry/Open Exit.

Apprenticeship Carpentry 022D
Exterior Finish Details
(Formerly Exterior Details 1 (F-204))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in exterior finish details. Reading blueprints related to building exteriors elevations, sections, and schedules. Covers the construction of structural and architectural elements such as balconies, fireplaces, bay windows, columns, and pop-outs. Open Entry/Open Exit.

Apprenticeship Carpentry 023B
Basic Roof Framing
(Formerly Roof Framing 1 (F-302))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in rafter theory and lay-out; different methods of rafter length calculations; construction of a gable roof, using both conventional and truss methods. Open Entry/Open Exit.

Apprenticeship Carpentry 023C
Advanced Roof Framing
(Formerly Roof Framing 2 (F-303))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in rafter theory; covers hip and intersecting roofs, blind valley, and dormer construction. Open Entry/Open Exit.

Apprenticeship Carpentry 023D
Metal Framing
(Formerly Residential Metal Framing (F-304))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in the technology of metal framing; tools and materials; floor and wall construction including openings, structural connections, and metal truss roof systems. Open Entry/Open Exit.

Apprenticeship Carpentry 024A
Basic Commercial Framing
(Formerly Apprenticeship Carpentry 024 Commercial Framing (F-401))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in commercial printreading; introduction to balloon wall framing and panelized roof systems. Open Entry/Open Exit.

Apprenticeship Carpentry 024B
Advanced Commercial Framing
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the required related and supplemental instruction for carpentry apprentices in advanced commercial framing. Covers theory and construction techniques, floor plan interpretation for job planning, layout and detail plate for complex walls, rake walls and door openings, measuring skills, mathematical principles, wall construction, plywood shear panel installation, and structural hardware attachment. Open Entry/Open Exit.

Apprenticeship Carpentry 024C
Panelized Roofing
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in the structural components and building techniques associated with heavy timber construction and panelized roof systems. Open Entry/Open Exit.

Apprenticeship Carpentry 024D
Transit Level/Laser
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in the terminology, optical principles and operating procedures for the transit and laser levels. Open Entry/Open Exit.

Apprenticeship Carpentry 025A
Foundations and Flatwork
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in the use of concrete in the construction industry; the various applications of flatwork forming; basic layout techniques; related safety; math and print reading. Open Entry/Open Exit.

Apprenticeship Carpentry 025C
Advanced Stairs
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in the layout and construction of complex stair designs. Open Entry/Open Exit.

Apprenticeship Carpentry 025D
Advanced Printreading
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in advanced print reading. Covers analysis of multi-view drawings, construction calculations, sketching, labor estimation, and the methods used to interpret schedules and specifications. Open Entry/Open Exit.

Apprenticeship Carpentry 026A
Tilt-Up Panel Construction
(Formerly Tilt-Up (C-105))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction required for carpentry apprentices in forming techniques and panel hardware. Related safety, math, and print reading. Open Entry/Open Exit.
Apprenticeship Carpentry 026B
Wall Forming
(Formerly Wall Forms (C-106))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the basic techniques of poured-in-place concrete wood form construction. Related safety, math, and print reading. Open Entry/Open Exit.

Apprenticeship Carpentry 026C
Gang Forms/Columns
(Formerly Gang Forms (C-107))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the various applications of pre-fabricated wall forming systems. Related safety and print reading will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 026D
Abutments
(Formerly Patented Forming Systems (C-108))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the use of various abutments and their applications. Related safety, math, and print reading will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 027C
Beam and Deck Forming
(Formerly Beam and Deck Forming (C-111))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the use of various wood and patented forming systems used in the construction of concrete beams and decks. Related safety, math and print reading will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 027D
Stairs and Ramp Forming
(Formerly Stairs and Ramp Forming (C-112))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the various techniques used to form stairs and ramp structures. Related safety, math and blueprint reading will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 028A
Bridge Construction
(Formerly Bridge Construction (C-113))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in basic bridge construction. Related safety, math, and blueprint reading will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 028B
Formwork Problems (C-114)
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Form design, material estimating and problems relative to form construction. Related safety, math, and blueprint reading will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 028C
Intermediate Commercial Framing
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in intermediate wall framing theory and wall construction techniques. Open Entry/Open Exit.

Apprenticeship Carpentry 028D
Interior Elevations
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the techniques and skills used in the trade. Layout and detail of interior walls, trim installation, measuring skills and cutting techniques for inside/outside corners and radius cuts. Open Entry/Open Exit.

Apprenticeship Carpentry 029A
Rigging
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the required related and supplemental instruction for carpentry apprentices in lifting theory and practical rigging methods and procedures. Covers design, characteristics and safe work load of lifting hardware, rigging attachment procedures, lifting equipment, limits of operation and communication practices. Open Entry/Open Exit.

Apprenticeship Carpentry 030
Standard First Aid
(Formerly First Aid Multi-Media)
Unit(s): 0.2
Class Hours: 8 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeyman. Enables carpenters to cope with accidents and emergency situations with the goal of protecting and saving lives. American Red Cross certificate available upon successful completion. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 033A
Cabinet Millwork and Assembly
(Formerly Basic Cabinetry (FC-103))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the skills needed to build basic cabinets. Basic joints used in cabinet construction. Open Entry/Open Exit.

Apprenticeship Carpentry 033B
Cabinet Installation
(Formerly Cabinet Installation (FC-104))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the installation of base and wall hung cabinets. Scribing will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 033C
Show Case/Loose Store Fixtures
(Formerly Store Fixtures (FC-105))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice. Provides the related and supplemental instruction required for carpentry apprentices in the wide variety of store fixture styles and finishes used in the industry. Open Entry/Open Exit.
Apprenticeship Carpentry 033D
Moldings and Trims
(Formerly Residential/Commercial Molding (FC-106))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in the many different moldings and their installations. Open Entry/Open Exit.

Apprenticeship Carpentry 034A
Plastic Laminates
(Formerly Plastic Laminates (FC-107))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in the manufacture and installation of plastic laminates on horizontal and vertical surfaces. Covers cutting and scribing. Open Entry/Open Exit.

Apprenticeship Carpentry 034B
Solid Surface
(Formerly Solid Surface (FC-108))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in the fabrication, installation, and repair of solid surface materials. Open Entry/Open Exit.

Apprenticeship Carpentry 034C
Stair Trim
(Formerly Stair Trim (FC-109))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in the fabrication and installation of the finish components as apprentices in the fabrication and installation of various types and models of exit hardware. The types of security devices and the miscellaneous types of door hardware used in the industry. Open Entry/Open Exit.

Apprenticeship Carpentry 034D
Doors and Door Hardware
(Formerly Introduction to Door/ Hardware (FC-110))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in doors and door hardware from different perspectives including print reading, door schedules, hardware schedules, specifications and manufacturer’s catalogs. OSHA regulations, safety, and the fire code will be covered. Open Entry/Open Exit.

Apprenticeship Carpentry 035C
Exit and Electrical Security Devices Products
(Formerly Introduction to Electrical Security Products (FC-113))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for carpentry apprentices in the proper selection and installation of various types and models of exit hardware. The types of security devices and the miscellaneous types of door hardware used in the industry. Open Entry/Open Exit.

Apprenticeship Carpentry 041
Powered Industrial Truck Operator
(Formerly Forklift Truck Operator/ Safety Training)
Unit(s): 0.2
Class Hours: 8 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeyman; must have a valid California Driver’s License.
Brings the operator in compliance with all of the current Federal OSHA and California OSHA regulations. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 051
Orientation
Unit(s): 3
Class Hours: 50 Lecture, 30 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in precision instruments, hand and power tools, safety and maintenance, operation of shop equipment, construction math, blueprint fundamentals, and trade fundamentals. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 052
Transit Level/Laser
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in the transit and laser levels. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 053
Machinery Installation and Erection
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in the principles of optics; operation of optical instruments; interpreting blueprints; principles and procedures of rigging for construction; occupational safety and awareness. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 054
Drive Systems and Alignment
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in shafts and attachments; bearings, drive systems; belt and bulk conveyor systems and components; installation, maintenance and repair; machinery alignment. Grade: Pass/No Pass Only. Open Entry/Open Exit.
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Apprenticeship Carpentry 055
Hydraulic Systems and Machinery Bases
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in the principles and types of pumps, gaskets, and seals; fans; valve maintenance; control and relief valves; metal fabrication; principles of welding and joint designs; monorail systems; trade orientation. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 056
Pneumatic Systems and Compressors
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in pneumatic systems; air compressors and blowers, fans, material handling systems, basic welding principles and joint design, welding blueprint symbols, fabrication techniques. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 057
Turbines and Generators
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in combustion turbines, steam turbines, generators, reactors, internal combustion engines, and electric motors. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 058
System Design and Fabrication
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in power transmission design and fabrication. Students develop concept, resolve design problems, create material list, fabricate parts, install and align equipment, troubleshoot operation. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 059
Structural Welding-AWS/L.A. City
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in structural welding. Prepares apprentices for AWS structural welding certification. Covers the Structural Welding Code and welding of plates that are 1/8" to unlimited thickness. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 060
Welding Fabrication
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for millwright apprentices in layout and fabrication; basic skills of measuring, cutting, shaping, grinding, drilling and tapping, welding, filing, shimming, heating and bending of metal parts. Also covers safe and proper use of all necessary hand and power tools. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Carpentry 061
Acoustical Ceilings
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for interior systems apprentices in acoustical ceilings, seismic codes, theory, wall molds and trims, ceiling layout, material identification, and installation of ceilings. Open Entry/Open Exit.

Apprenticeship Carpentry 062
Standard Acoustical Grids
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in acoustical grid installation, 2x4, 2x2 flat "H" pattern, radius, gable and diagonal ceilings. Open Entry/Open Exit.

Apprenticeship Carpentry 063
Suspended Ceilings
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the installation of circular ceilings with drops and drywall suspension grid in both square and circular areas. Open Entry/Open Exit.

Apprenticeship Carpentry 064
Soffits
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in squares and slant faced, tapered, concealed, drywall suspension, and sloped soffits. Open Entry/Open Exit.

Apprenticeship Carpentry 065
Prefab/Sound Panels
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the assembly of prefabricated wall and ceiling panel systems. Open Entry/Open Exit.

Apprenticeship Carpentry 066
Concealed/Glue-Up/Staple-Up Systems
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the assembly of concealed and semi-concealed ceilings and soffits and glue-up and staple-up systems. Open Entry/Open Exit.

Apprenticeship Carpentry 067
Compasso
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the installation of air bars, double soffits, and compasso. Open Entry/Open Exit.
Apprenticeship Carpentry 068
Metal Pan and Security Systems
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in metal pan and security systems and high end products. Open Entry/Open Exit.

Apprenticeship Carpentry 071A
Orientation
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the Interior Systems Apprenticeship Program, hand tools, power tools, math, layout, basic blueprint reading and low velocity powder actuated tools. Certification for Scaffold Erector is included. Open Entry/Open Exit.

Apprenticeship Carpentry 071B
Safety and Health Certifications
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in health and safety certifications, safety and math. Certifications can be earned in forklift, American Red Cross First Aid/CPR, aerial lift, and OSHA 10. Open Entry/Open Exit.

Apprenticeship Carpentry 072A
Basic Metal Framing
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the basics of material identification, print layout, framing, drywall installation, and proper trim application. Open Entry/Open Exit.

Apprenticeship Carpentry 072B
Basic Lathing
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the different styles and techniques of structural framing compared to light gage framing; proper waterproofing, lath, and trims as applied to framing. Open Entry/Open Exit.

Apprenticeship Carpentry 073A
Framing Ceilings and Soffits
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in advanced level framing including ceilings and soffits with drywall and lath application. Open Entry/Open Exit.

Apprenticeship Carpentry 073B
Framing Suspended Ceilings
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in framing suspended ceilings in the drywall/lath industry. Open Entry/Open Exit.

Apprenticeship Carpentry 073C
Framing Curves and Arches
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in curves and arches, barrel ceilings, radius wall, and soffits. Open Entry/Open Exit.

Apprenticeship Carpentry 074A
Printreading
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the basics of reading, understanding and visualizing blueprints. Terms, symbols and definitions from several trades will be covered. Prints showing both residential and commercial will be used. Open Entry/Open Exit.

Apprenticeship Carpentry 074B
Advanced Printreading
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in blueprint reading related to on the job conditions. Basic estimating, material take offs, and organizing jobs will be included. Open Entry/Open Exit.

Apprenticeship Carpentry 075A
Light Gage Welding AWS
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in arc welding processes and applications. Prepares apprentices to successfully pass the AWS light gage certification. Open Entry/Open Exit.

Apprenticeship Carpentry 075B
Light Gage Welding LAC
(Formerly Welding LAC)
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in oxyacetylene and arc welding processes and applications. Prepares apprentices to successfully pass the Los Angeles City Light Gage certification. Open Entry/Open Exit.

Apprenticeship Carpentry 076A
Basic Hand Finishing
(Formerly Hand Taping (DWF-103))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in basic hand finishing skills. Includes hand tool manipulation, material identification and selection, mixture preparation, plan and specification reading. Open Entry/Open Exit.

Apprenticeship Carpentry 076B
Automatic Finishing Tools
(Formerly Machine Taping (DWF-104))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in automatic finishing tools. Includes basic automatic tool techniques and finish schedule interpretation; the importance of proper use, assembly and breakdown; basic maintenance and repair techniques. Open Entry/Open Exit.
Apprenticeship Carpentry 077A
Drywall Installation/Finish Trims
(Formerly Gypsum Board Application
(DWF-201))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in drywall installation and finish trims. Includes handling methods, applications and recommended levels of drywall finish, trim attachment and finishing techniques. Open Entry/Open Exit.

Apprenticeship Carpentry 077B
Advanced Hand Finishing
(Formerly Advanced Hand Tool Finishing)
(DWF-202))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in advanced hand finishing. Includes advanced methods and applications, hand tool techniques, the proper sequence of operation, phases and materials used, curve and radius wall characteristics. Open Entry/Open Exit.

Apprenticeship Carpentry 077C
Advanced Automatic Finishing Tools
(Formerly Advanced Machine Tool Finish
(DWF-203))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in the operation of advanced automatic taping and finishing tools, including those newly introduced to the industry. Proper methods, applications and sequences of the “bazooka”, skim boxes, nail spotters, and angel boxes and ergonomics. Open Entry/Open Exit.

Apprenticeship Carpentry 078A
Advanced Metal Framing
(Formerly Advanced Steel Stud Framing
(DWF-332))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior design apprentices in advanced metal framing. Includes detailed procedures for framing curved, serpentine, and elliptical non-load bearing partitions with emphasis on advanced techniques that will expedite work processes. Open Entry/Open Exit.

Apprenticeship Carpentry 078B
Wet Wall Finishes
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in wet wall finishes. Includes industry application methods and product mediums, techniques and procedures used to achieve a level five finish to industry standards, selection and use of painting equipment and coatings. Open Entry/Open Exit.

Apprenticeship Carpentry 078D
Ceiling and Soffit Finishing
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in ceiling and soffit finishing. Includes advanced applications with architecturally detailed ceilings and soffits, types and quality of materials, hand and automatic tool techniques, and inspection criteria. Open Entry/Open Exit.

Apprenticeship Carpentry 079A
Drywall/Acoustical Ceilings
(Formerly Acoustical 1 (DW/DWF-301))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in acoustical ceilings. Includes materials and methods used for installation, seismic codes, green building rating systems, installation of various grid systems. Open Entry/Open Exit.

Apprenticeship Carpentry 082B
Decorative Trims and Textures
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for interior systems apprentices in decorative trims and textures. Includes advanced hand and automatic tool finishing techniques used in the application of decorative trims and special surface textures, product information for metal, paper, plastics and art beads. Open Entry/Open Exit.

Apprenticeship Carpentry 083
Doors/Door Frames
(Formerly Doors and Door Hardware
(DW/DWF-310))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for interior systems apprentices in basic installation of door frames and various types of door hardware. Discussion and installation of lock sets, closures, hinges, panic hardware, door sweeps. Open Entry/Open Exit.

Apprenticeship Carpentry 085
Supervisory Training (DW/DWF-319)
(Formerly Supervisory Training Program
(DW/DWF-319))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in field supervisory skills, efficiency and productivity. Open Entry/Open Exit.
Apprenticeship Carpentry 086A
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides the related and supplemental instruction required for interior systems apprentices in the installation of exterior insulation and finish systems (foam products) to meet industry specifications and standards. Proper usage of products and materials. Open Entry/Open Exit.

Apprenticeship Carpentry 089
Free-Form Lathing (Formerly Freeform Lathing (DW/DWF-314))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides the related and supplemental instruction required for interior systems apprentices in free-form lathing. Proper layout, use of grids, tools, methods to bend rebar and pencil rod, welding, handling and tying of lath. Open Entry/Open Exit.

Apprenticeship Carpentry 090
Residential Steel Stud Framing (Formerly Residential Steel Stud Framing (DW/DWF-317))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides the related and supplemental instruction required for interior systems apprentices in the new technology of cold-formed light gage steel framing for the residential market. Methods of constructing a structural floor, wall and truss system. Open Entry/Open Exit.

APPRENTICESHIP COSMETOLOGY
(ACS)
Apprenticeship Cosmetology 035
Cosmetology Apprentice
Unit(s): 0.5 - 14
Class Hours: 224 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides the related and supplemental instruction required for cosmetology apprentices leading to a cosmetology license. 0.5 unit earned for each 8 hours of successfully completed coursework. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Cosmetology 039
Cosmetology Skills
Unit(s): 0.5 - 6
Class Hours: 96 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides the related and supplemental instruction required for cosmetology apprentices. 0.5 unit earned for each 8 hours of successfully completed coursework. Grade: Pass/No Pass Only. Open Entry/Open Exit.

APPRENTICESHIP ELECTRICIAN
(AEL)
Apprenticeship Electrician 021
Sound and Communication Apprentice 1
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for electrician apprentices in the structure and requirements of the IBEW/NECA apprenticeship program, tools, structured wiring, mathematics for electricity, and series circuits.

Apprenticeship Electrician 022
Sound and Communication Apprentice 2
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for electrician apprentices in combination circuits, Commercial Building Telecommunications Cable Standard, residential and light commercial telecommunications wiring, National Electrical Code, blueprint reading.

Apprenticeship Electrician 023
Sound and Communication Apprentice 3
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for electrician apprentices in the IBEW, National Electrical Code, DC theory; comparing DC to AC, telephone systems, basic security systems.

Apprenticeship Electrician 024
Sound and Communication Apprentice 4
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for electrician apprentices in commercial building grounding and bonding requirements for telecommunications, electrical test equipment, blueprint reading.

Apprenticeship Electrician 025
Sound and Communication Apprentice 5
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for electrician apprentices in basic I/O hardware, memory, diodes, transducers and transistors, SCR applications, amplifiers, electronic applications, cost awareness, private CATV distribution systems, microwave radio systems.

Apprenticeship Electrician 026
Sound and Communication Apprentice 6
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for electrician apprentices in ladder diagrams and relay type instructions, programming devices, data manipulation and arithmetic, shift registers and sequencers, start up and troubleshooting, nurse call systems, sound and paging systems, LAN software, blueprint reading.

Apprenticeship Electrician 027
Sound and Communication Apprentice 7
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for indentured electrician apprentices in NACC Fiber Optic Certification, AMP ACT I, and NICET Level II Fire Alarm Systems.

Apprenticeship Electrician 028
Sound and Communication Apprentice 8
Unit(s): 3
Class Hours: 90 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
 Provides related and supplemental instruction for indentured electrician apprentices in BICSI Technician training, high pair count copper slicing, connectors for audiovisual and communications, MATV/CATV RF Broadband Distribution, NICET Level II Audion Systems Technician training.
Apprenticeship Electrician 031
Intelligent Transportation Systems
Electrician Apprentice 1
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for apprentice electricians in the intelligent transportation industry, safety, hand signals, wire construction and insulation properties. Introduction to Caltrans Plans and Specifications.

Apprenticeship Electrician 032
Intelligent Transportation Systems
Electrician Apprentice 2
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for apprentice electricians in fall protection, rigging tools and equipment, underground installations, basic signal blueprint reading, electron theory, and DC series circuits. Continued study of Caltrans Plans and Specifications.

Apprenticeship Electrician 033
Intelligent Transportation Systems
Electrician Apprentice 3
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for apprentice electricians in grounding, DC parallel circuits, codeology, excavation, and spans and mastarms. Continued study of Caltrans Plans and Specifications.

Apprenticeship Electrician 034
Intelligent Transportation Systems
Electrician Apprentice 4
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for apprentice electricians in proper hoisting of loads, concrete fundamentals, DC combination circuits, test instruments and troubleshooting, magnetism, current, transformers, traffic signal cabinets and equipment. Continued study of Caltrans Plans and Specifications.

Apprenticeship Electrician 035
Intelligent Transportation Systems
Electrician Apprentice 5
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for apprentice electricians in RL circuits, RC circuits, LC circuits, job overhead, time space diagrams, bridge blueprints, sign structures, street lighting, productivity, and controllers. Continued study of Caltrans Plans and Specifications.

Apprenticeship Electrician 036
Intelligent Transportation Systems
Electrician Apprentice 6
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for apprentice electricians in alternative energy sources, fiber optics, testing and certification, video security systems, traffic signal troubleshooting. Continued study of Caltrans Plans and Specification.

Apprenticeship Electrician 037
Intelligent Transportation Systems
Electrician Apprentice 7
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for apprentice electricians in preparing for the California State Electrical Certification Exam.

Apprenticeship Electrician 038
Intelligent Transportation Systems
Electrician Apprentice 8
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for apprentice electricians in motor control, supervision/foremanship, and safety.

Apprenticeship Electrician 051
Inside Wireman 1
Unit(s): 3
Class Hours: 76 Lecture, 16 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
First semester of a five year program. Provides related and supplemental instruction in tools and fasteners, knot tying, math and materials, building materials and safety, and residential blueprints required for entry-level inside wireman apprentices.

Apprenticeship Electrician 052
Inside Wireman 2
Unit(s): 3
Class Hours: 62 Lecture, 30 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Second semester of a five year program. Provides related and supplemental instruction in DC theory, the National Electrical Code, safe work practices, series circuits, parallel circuits, combination circuits, principles of magnetism and electromagnetism for inside wireman apprentices.

Apprenticeship Electrician 053
Inside Wireman 3
Unit(s): 3
Class Hours: 76 Lecture, 16 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Third semester of a five year program. Provides related and supplemental instruction in codeology, test instruments and sine waves, three-phase systems, residential and commercial blueprints, mechanical bending for inside wireman apprentices.

Apprenticeship Electrician 054
Inside Wireman 4
Unit(s): 3
Class Hours: 54 Lecture, 38 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Fourth semester of a five year program. Provides related and supplemental instruction in electrical theory, transformers, and National Electrical Code application for inside wireman apprentices.

Apprenticeship Electrician 055
Inside Wireman 5
Unit(s): 3
Class Hours: 84 Lecture, 8 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Fifth semester of a five year program. Provides related and supplemental instruction in the National Electric Code, grounding, and NEC Code Calculations for inside wireman apprentices.

Apprenticeship Electrician 056
Inside Wireman 6
Unit(s): 3
Class Hours: 62 Lecture, 30 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Sixth semester of a five year program. Provides related and supplemental instruction in motors, motor control and code as applied to motor protection for inside wireman apprentices.
Apprenticeship Electrician 057
Inside Wireman 7
Unit(s): 3
Class Hours: 40 Lecture, 52 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Seventh semester of a five year program. Provides related and supplemental instruction in programmable logic controllers and fire alarm systems for inside wireman apprentices.

Apprenticeship Electrician 058
Inside Wireman 8
Unit(s): 3
Class Hours: 60 Lecture, 32 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Eight semester of a five year program. Provides related and supplemental instruction in instrumentation, building automation and lighting systems for inside wireman apprentices.

Apprenticeship Electrician 059
Inside Wireman 9
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Ninth semester of a five year program. Provides related and supplemental instruction in the National Electrical Code in preparation for the California State Electrical Examination for inside wireman apprentices. Prepares for competency exams.

Apprenticeship Electrician 060
Inside Wireman 10
Unit(s): 3
Class Hours: 92 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Final semester of a five year program. Provides related and supplemental instruction in jobsite management, jobsite safety and photovoltaic systems for inside wireman apprentices.

Apprenticeship Electrician 061
Electrical Safety and First Aid
(Formally Quality Safety Program)
Unit(s): 1.5
Class Hours: 30 Lecture total.
Prerequisite: Must be a state indentured apprentice.
Provides related and supplemental instruction in OSHA workplace requirements, the identification and use of safe work practices, coping with accidents and emergency situations, and one person CPR for inside wireman apprentices. American Red Cross certificate available upon successful completion. Grade: Pass/No Pass Only.

APPRENTICESHIP MAINTENANCE MECHANIC (AMM)

Apprenticeship Maintenance Mechanic 021
Maintenance Mechanic Apprentice, Level 1
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for the first level maintenance mechanic apprentice in mathematics, industrial safety and health, using hand and portable power tools, basic measurement, basic electricity, and basic mechanics.

Apprenticeship Maintenance Mechanic 022
Maintenance Mechanic Apprentice I, Level 2
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for the second level maintenance mechanic apprentice I in electrical safety and protection; introductory MWD System Operating Orders, building and construction codes; standards and specifications; and blueprints, symbols, drawings, and schematics diagrams.

Apprenticeship Maintenance Mechanic 043
Maintenance Mechanic Apprentice I, Level 3
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for the third level maintenance mechanic apprentice I in rigging and hoisting principles and practices; basic pneumatics and hydraulics; mechanical and fluid power transmissions systems; and, equipment installation and maintenance.

Apprenticeship Maintenance Mechanic 044
Maintenance Mechanic Apprentice I, Level 4
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for the fourth level maintenance mechanic apprentice I in pump types and applications; piping systems; pump hydraulics; tubing and hose applications, installation and maintenance; installation and maintenance pipefitting; and troubleshooting skills.

Apprenticeship Maintenance Mechanic 045
Maintenance Mechanic Apprentice I, Level 5
Unit(s): 4.5
Class Hours: 110 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for the fifth level maintenance mechanic apprentice I in the properties and characteristics of ferrous and nonferrous metals, welding principles, oxy-fuel welding and cutting operations, arc welding operations, welding codes and standards.

Apprenticeship Maintenance Mechanic 046
Maintenance Mechanic Apprentice I, Level 6
Unit(s): 4.5
Class Hours: 110 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for the sixth level maintenance mechanic apprentice I in machine shop practices and operations.

Apprenticeship Maintenance Mechanic 047
Maintenance Mechanic Apprentice I, Level 7
Unit(s): 4.5
Class Hours: 80 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for the seventh level maintenance mechanic apprentice I in the areas of water treatment plant operations and water distribution.

Apprenticeship Maintenance Mechanic 048
Maintenance Mechanic Apprentice I, Level 8
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for the eighth level maintenance mechanic apprentice I in mechanical systems; maintenance and operations procedures; and, project planning, layout, estimating, and scheduling.

Apprenticeship Maintenance Mechanic 052
Maintenance Mechanic Apprentice II, Level 2
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction required for the second level maintenance mechanic apprentice II in basic electrical circuits; DC circuits and batteries; electromagnetism, inductance and capacitance; transformers and AC circuits, electrical measuring instruments; and electrical safety protection.
Apprenticeship Maintenance Mechanic 053
Maintenance Mechanic Apprentice II, Level 3
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction required for the third level maintenance mechanic apprentice II in reading blueprints, schematics, symbols, drawings and diagrams; rigging principles and practices for electricians; DC equipment and controls; AC control equipment; and power systems.

Apprenticeship Maintenance Mechanic 054
Maintenance Mechanic Apprentice II, Level 4
Unit(s): 4.5
Class Hours: 80 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction required for the fourth level maintenance mechanic apprentice II in the application of code requirements, intermediate electricity, single phase motors, three phase systems, and electrical troubleshooting skills.

Apprenticeship Maintenance Mechanic 055
Maintenance Mechanic Apprentice II, Level 5
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction required for the fifth level maintenance mechanic apprentice II in the application of code requirements, variable frequency drives (VFD), VFD faults and troubleshooting, input/output devices, semi-conductors, and power supplies.

Apprenticeship Maintenance Mechanic 056
Maintenance Mechanic Apprentice II, Level 6
Unit(s): 4.5
Class Hours: 100 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction required for the sixth level maintenance mechanic apprentice II in application of code requirements, conserving energy in electrical systems, process controls, introductory programming, programmable logic controllers and advanced electricity.

Apprenticeship Operating Engineers 023
Plant Equipment Operator 3
Unit(s): 4
Class Hours: 72-104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction required for operating engineer apprentices in safety practices, pre-shift inspection, lubrication and maintenance, and machine operation. Emphasizes practical experience in performing the work processes.

Apprenticeship Operating Engineers 024
Plant Equipment Operator 4
Unit(s): 4
Class Hours: 72-104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction required for operating engineer apprentices in pneumatics, power hydraulics, filtration, piping/sealing devices and electricity emphasizing troubleshooting three-phase industrial motor control systems.

Apprenticeship Operating Engineers 025
Plant Equipment Operator 5
Unit(s): 4
Class Hours: 72-104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction for operating engineer apprentices in disassembly, diagnosis, repair and assembly/adjustment of cone crushers, screens, separators and belt conveyors. Emphasizes safety and maximum design life.

Apprenticeship Operating Engineers 026
Plant Equipment Operator 6
Unit(s): 4
Class Hours: 72-104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
- Provides the related and supplemental instruction required for operating engineer apprentices in the operation of asphalt/concrete plants, material handling/storage, batching tolerances and electrical controls, and solving gasoline/diesel engine problems.
Apprenticeship Operating Engineers 031
Heavy Duty Repairer 1
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for operating engineer apprentices in safe work practices and principles when working around or operating heavy equipment, the purposes of organized labor, labor history, first aid, Local 12 structure, Labor-Management Agreement, Local 12 By-Laws, IUOE Constitution, basic machinery maintenance.

Apprenticeship Operating Engineers 032
Heavy Duty Repairer 2
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for operating engineer apprentices in the basic safety practices and principles in the use of oxyacetylene cutting equipment, the technique of brazing, and electric arc welding.

Apprenticeship Operating Engineers 033
Hydraulics
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for operating engineer apprentices in the principles of hydraulics, how a hydraulic system works, and the practical uses of hydraulics.

Apprenticeship Operating Engineers 034
Advanced Hydraulics
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for operating engineer apprentices in hydraulic systems, pneumatic systems, and electrical/electronic systems used on heavy equipment and trucks.

Apprenticeship Operating Engineers 035
Heavy Duty Repairer 5
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for operating engineer apprentices in the basic safety practices and proper maintenance procedures when working around gasoline and/or diesel engines. Specific topics include: internal combustion engine theory for both diesel and gasoline engines; use of appropriate hand tools needed for engine repair; applying proper procedures for engine disassembly and assembly; and troubleshooting and diagnosing engine failures.

Apprenticeship Operating Engineers 036
Disassembly and Assembly
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for operating engineer apprentices in the basic safety aspects and procedures when working around heavy components of heavy equipment. Specific components include: clutches, mechanical transmissions, differentials, final drives, crawler tractor undercarriage, and crawler tractor truck assemblies.

Apprenticeship Operating Engineers 041
Equipment Operator 1
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for state-indentured apprentices employed full-time in the operating engineers field. Covers preventive maintenance and operation of heavy equipment.

Apprenticeship Operating Engineers 042
Grade Checking
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for state-indentured apprentices employed full-time in the operating engineers field. Covers information found on typical grading stakes; using colored ribbons grade stakes; transferring elevations from one point to another; setting grading stakes for both cut and fill slopes; grading stakes for curb and streets; staking procedures for subdivisions; basic laser set-up; basic GPS set-up.

Apprenticeship Operating Engineers 043
Equipment Operator 3
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for state-indentured apprentices employed full-time in the operating engineers field. Covers preventive maintenance and operation of heavy equipment.

Apprenticeship Operating Engineers 044
Plan Reading
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for state-indentured apprentices employed full-time in the operating engineers field. Covers reading and interpreting grading plans for highways, streets and subdivisions.

Apprenticeship Operating Engineers 045
Equipment Operator 5
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for state-indentured apprentices employed full-time in the operating engineer field. Covers preventive maintenance and operation of heavy equipment.
Announcement of Courses

Apprenticeship Operating Engineers 046
Hazmat 6
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for state-indentured apprentices employed full-time in the operating engineer field. Covers basic safety for a worker on a hazardous materials project, first aid/CPR, OSHA safety topics. Apprentices successfully completing this course will receive three certifications: HAZWOPER, Red Cross First Aid/CPR, OSHA Safety.

Apprenticeship Operating Engineers 047
Operating Engineers Hazmat 40
(Formerly Operating Engineers Hazmat)
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeymen worker.
Safety regulations, safe work practices for hazardous waste site operations as specified by 29th code of Federal Regulations, 1910.120 as approved by National Institute of Environmental Safety and Health for the International Union of Operating Engineers, for required certification. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Operating Engineers 048
Disaster Site Worker
Unit(s): 0.5
Class Hours: 16 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeymen worker.

Apprenticeship Operating Engineers 049
OSHA Construction Training
Unit(s): 0.2 - 3
Class Hours: 150 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeymen worker.

Apprenticeship Operating Engineers 051
Operating Engineers Hazmat 8
(Formerly Operating Engineers Skills)
Unit(s): 0.2 - 5
Class Hours: 200 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeymen worker.
Refresher courses in hazmat for mandatory certification required to work hazardous waste sites as specified by 29th code of Federal Regulations 1910.120 as approved by National Institute of Environmental Safety and Health for International Union of Operating Engineers. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Operating Engineers 052
Mobile Cranes
(Formerly Truck and Crawler Crane)
Unit(s): 0.5 - 6
Class Hours: 240 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeymen worker.
Pre-operational inspections, operational inspections, capacity charts, setting up cranes, rigging, signals, common operational hazards, public awareness, professional responsibility. Prepares for Operating Engineers Crane Operators’ Performance test. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Operating Engineers 053
Special Inspector Education
(Formerly Special Inspector Renewal)
Unit(s): 0.5 - 6
Class Hours: 192 Lecture total.
Prerequisite: Must be a state-indentured apprentice or journeymen worker.
Duties and responsibilities of the special inspector. Materials and testing of structural masonry, concrete, reinforcement, code changes, report writing, people skills. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Operating Engineers 061
Concrete Transportation
Construction Inspector
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for apprentices in the Operating Engineers field. Covers transportation systems and applications, preliminary testing, pre-placement inspection, placement inspection, post-placement inspection.

Apprenticeship Operating Engineers 062
Asphalt Inspection
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction for apprentices in the Operating Engineers field. Covers materials inspection, mix design, plant operations, placing operations, compaction, report writing, plan reading, and grade checking.

Apprenticeship Operating Engineers 063A
ACI Laboratory Testing Technician I
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for operating engineer apprentices in laboratory testing on aggregates used for structural concrete.

Apprenticeship Operating Engineers 064A
ACI Laboratory Testing Technician II
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for operating engineer apprentices in design parameters for batching structural concrete.

Apprenticeship Operating Engineers 071A
Reinforced Concrete
(Formerly Apprenticeship Operating Engineers 071, Reinforced Concrete)
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for operating engineer apprentices in codes and duties, reinforcing steel, blueprint reading, gunite, report writing, people skills. Apprentices will gain the knowledge, research skills and confidence needed to pass their written and oral exams.

Apprenticeship Operating Engineers 072A
Prestressed Concrete
(Formerly Apprenticeship Operating Engineers 072, Prestressed Concrete)
Unit(s): 4
Class Hours: 104 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for operating engineer apprentices in reinforcing steel, codes, blueprints, stressing sheets, plan changes, report writing, people skills, job etiquette and protocol. Apprentices will gain the knowledge, research skills and confidence needed to pass their written and oral exams.
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Prerequisite</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Operating Engineers 073A Structural Steel/Welding (Formerly Apprenticeship Operating Engineers 073, Structural Steel/Welding)</td>
<td>Must be a state-indentured apprentice.</td>
<td>4 units</td>
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<tr>
<td>Class Hours: 104 Lecture total.</td>
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</tr>
<tr>
<td>Provides the related and supplemental instruction for operating engineer apprentices in codes and duties, welding, report writing, people skills, gunite application. Apprentices will gain the knowledge, research skills and confidence needed to pass their written and oral exams.</td>
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</tr>
<tr>
<td>Apprenticeship Operating Engineers 074A Structural Masonry (Formerly Apprenticeship Operating Engineers 074, Structural Masonary)</td>
<td>Must be a state-indentured apprentice.</td>
<td>4 units</td>
</tr>
<tr>
<td>Class Hours: 104 Lecture total.</td>
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</tr>
<tr>
<td>Provides the related and supplemental instruction for operating engineer apprentices in codes and duties, reinforcing steel, plan changes, people skills, jobsite etiquette and protocol, Specialty Inspector. Apprentices will gain the knowledge, research skills and confidence needed to pass their written and oral exams.</td>
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</tr>
<tr>
<td>Apprenticeship Operating Engineers 075A Soils Inspection and Testing (Formerly Apprenticeship Operating Engineers 075, Soils Inspection and Testing)</td>
<td>Must be a state-indentured apprentice.</td>
<td>4 units</td>
</tr>
<tr>
<td>Class Hours: 104 Lecture total.</td>
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<tr>
<td>Provides the related and supplemental instruction for operating engineer apprentices in codes and duties, calibration procedures, soil identification, methods of moisture determination, maximum density tests, sand cone testing, nuclear density testing, people skills, sieve analysis, proper vehicle setup. Apprentices will gain the knowledge, research skills and confidence needed to pass their written and oral exams.</td>
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</tr>
<tr>
<td>Apprenticeship Operating Engineers 076A Structural Plan Reading for Inspectors (Formerly Apprenticeship Operating Engineers 076, Structural Plan Reading for Inspectors)</td>
<td>Must be a state-indentured operating engineer apprentice.</td>
<td>4 units</td>
</tr>
<tr>
<td>Class Hours: 104 Lecture total.</td>
<td></td>
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<tr>
<td>Provides the related and supplemental instruction required for operating engineer apprentices in structural plan reading, interpretation of structural layout and design engineering for inspectors. Design, printing, and preparation guidelines as detailed in the Uniform Building Code Vol. II.</td>
<td></td>
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</tr>
<tr>
<td>Apprenticeship Operating Engineers 077A ICC Soils Special Inspector</td>
<td>Must be a state-indentured apprentice.</td>
<td>4 units</td>
</tr>
<tr>
<td>Class Hours: 104 Lecture total.</td>
<td></td>
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<tr>
<td>Provides the related and supplemental instruction required for operating engineer apprentices in the general requirements, laboratory testing, grading plans, site preparation, and fill monitoring techniques used for ICC Soils Inspections.</td>
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</tr>
<tr>
<td>Apprenticeship Pile Driver 011 Orientation and Safety (Formerly Apprenticeship Carpenter 011, Pile Driver 1)</td>
<td>Must be a state-indentured apprentice.</td>
<td>3 units</td>
</tr>
<tr>
<td>Class Hours: 40 Lecture, 40 Laboratory total.</td>
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<tr>
<td>Provides the related and supplemental instruction required for pile driver apprentices in safety practices, OSHA regulations, related tools/equipment, MSDS, carpentry mathematics, blueprint reading, first aid/CPR, scaffolding regulations. Grade: Pass/No Pass Only.</td>
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<tr>
<td>Apprenticeship Pile Driver 012 Piles and Hammers (Formerly Apprenticeship Carpenter 012, Pile Driver 2)</td>
<td>Must be a state-indentured apprentice.</td>
<td>3 units</td>
</tr>
<tr>
<td>Class Hours: 40 Lecture, 40 Laboratory total.</td>
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<tr>
<td>Provides the related and supplemental instruction required for pile driver apprentices in the types of piles used in construction as load bearing support for commercial buildings, bridges and piers when ground stratum is insufficient in strength. Grade: Pass/No Pass Only.</td>
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<tr>
<td>Apprenticeship Pile Driver 013 Pile Caps and Columns (Formerly Apprenticeship Carpenter 013, Pile Driver 3)</td>
<td>Must be a state-indentured apprentice.</td>
<td>3 units</td>
</tr>
<tr>
<td>Class Hours: 40 Lecture, 40 Laboratory total.</td>
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<tr>
<td>Provides the related and supplemental instruction required for pile driver apprentices in site preparation, staging, material, safety, blueprint interpretation, pilings, foundations, temporary structures, pile driving equipment. Grade: Pass/No Pass Only.</td>
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</tr>
<tr>
<td>Apprenticeship Pile Driver 014 Abutments (Formerly Apprenticeship Carpenter 014, Pile Driver 4)</td>
<td>Must be a state-indentured apprentice.</td>
<td>3 units</td>
</tr>
<tr>
<td>Class Hours: 40 Lecture, 40 Laboratory total.</td>
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<tr>
<td>Provides the related and supplemental instruction required for pile driver apprentices in abutment, layout, scaffolding, wall forms, rigging piles, math/blueprint reading, safety, shoring/false work. Grade: Pass/No Pass Only.</td>
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</tr>
<tr>
<td>Apprenticeship Pile Driver 015 Falsework (Formerly Apprenticeship Carpenter 015, Pile Driver 5)</td>
<td>Must be a state-indentured apprentice.</td>
<td>3 units</td>
</tr>
<tr>
<td>Class Hours: 40 Lecture, 40 Laboratory total.</td>
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</tr>
<tr>
<td>Provides the related and supplemental instruction required for pile driver apprentices in the basic installation techniques and procedures used to install a typical structure support system for concrete formwork. Includes falsework components, materials, site preparation, related safety, math, and blueprint reading. Grade: Pass/No Pass Only.</td>
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<tr>
<td>Apprenticeship Pile Driver 016 Bridge and Deck Forms (Formerly Apprenticeship Carpenter 016, Pile Driver 6)</td>
<td>Must be a state-indentured apprentice.</td>
<td>3 units</td>
</tr>
<tr>
<td>Class Hours: 40 Lecture, 40 Laboratory total.</td>
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</tr>
<tr>
<td>Provides the related and supplemental instruction required for pile driver apprentices in basic bridge and deck construction, exterior and interior girders, bulkhead forms, edge forms, hinge and deck forms, and related math, and blueprint reading. Grade: Pass/No Pass Only.</td>
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</tbody>
</table>
Apprenticeship Pile Driver 017
Welding Fabrication
(Formerly Apprenticeship Carpentry 017, Pile Driver 7)
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for pile driver apprentices in cutting and burning, welding machines, MSDS, safety equipment, arc welding procedures, welding symbols. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Pile Driver 018
Structural Welding-AWS
(Formerly Apprenticeship Carpentry 018, Pile Driver 8)
Unit(s): 3
Class Hours: 40 Lecture, 40 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for pile driver apprentices in safety, tools and equipment, mig welding, tig welding, blueprints and symbols. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Apprenticeship Pile Driver 019
Printreading
Unit(s): 1.5
Class Hours: 32 Lecture, 8 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for pile driver apprentices in printreading. Grade: Pass/No Pass Only. Open Entry/Open Exit.

APPRENTICESHIP PLASTERING (APST)
Apprenticeship Plastering 020
Basic Plastering
(Formerly Apprenticeship Carpentry 020, Introduction to Plastering (PL-103))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in the history of plastering and a complete picture of what the plastering industry is like today; the importance of good lathing and proper inspection of lathing; hand tools and their use.

Apprenticeship Plastering 021
Plastering Equipment
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in the terminology, components and operating procedures for plastering equipment and machinery.

Apprenticeship Plastering 022
Plastering Equipment Application
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction materials, application methods and techniques for operating a plaster pump.

Apprenticeship Plastering 043
Exterior Plastering
(Formerly Apprenticeship Carpentry 043, Portland Cement Plaster (PL 104))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices is Portland Cement Plaster, the process involved to complete a plastering job, the importance of good workmanship and adherence to proven methods of work, basic plasterer's hand tools.

Apprenticeship Plastering 044
Dot and Screed Techniques
(Formerly Apprenticeship Carpentry 044, Basic Wall Layout (PL-201))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in the importance of plumb and square projects; the 3-4-5 or center methods to square the project, establish control lines, and wall finish lines; using dotting and screeding; how to brown up and finish a project.

Apprenticeship Plastering 045
Exterior Insulation Finish Systems (EIFS)
(Formerly Apprenticeship Carpentry 045, EIFS and Foam Shapes (PL-203))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in the complete and proper methods used to install an EIFS System; common mistakes made that cause poor performance in a finished EIFS job; required math and layout procedures.

Apprenticeship Plastering 046
Interior Plastering
(Formerly Apprenticeship Carpentry 046, Interior Gypsum Plasterer (PL-204))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in an introduction to modern gypsum interior plastering; the most widely used systems today; proper methods of application, proportioning, and mixing; good workmanship.

Apprenticeship Plastering 047
Finish Applications
(Formerly Apprenticeship Carpentry 047A, Ornamental Plastering 1 (PL-301))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in the basics of ornamental plastering; how to design a mold profile and take it through each phase of production to the final on the wall form; types, use and application of molds; components of a mold; how to horse a mold, inside and outside cutters.
Apprenticeship Plastering 049
Theme Plastering
(Formerly Apprenticeship Carpentry 049,
Theme Plastering (PL 304))
Unit(s): 2
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for plastering apprentices in the basic skills and knowledge required to successfully plan and execute a project that requires the use of apprentice made manufactured rock and carved in place rock; a study of real rock formations and techniques used to copy them; painting and highlighting; required tools; carving techniques.

**APPRENTICESHIP POWER LINEMAN (APL)**

Apprenticeship Power Lineman 020
Orientation
Unit(s): 3
Class Hours: 80 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides related and supplemental instruction required for entry-level apprentice power linemen. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 021
Power Lineman Apprentice 1
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction required for entry-level power lineman apprentices in the tools, math, theory and safety required in the power lineman industry. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 022
Power Lineman Apprentice 2
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction in the theory, math, construction methods, and safety required for the second-level power lineman apprentice. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 023
Power Lineman Apprentice 3
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for third-level power lineman apprentice with emphasis on circuits energized below 750 volts, tower erection, and street lighting systems. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 024
Power Lineman Apprentice 4
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for the fourth-level lineman apprentice in underground construction, blueprint reading, splicing and sagging conductors, locating faults, and using aerial man-lift equipment. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 025
Power Lineman Apprentice 5
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for power lineman apprentices in the theory, operation and installation of electrical apparatus and test equipment in power systems. Includes construction and maintenance of energized line and equipment. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 026
Power Lineman Apprentice 6
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for power lineman apprentices in the theory, installation, maintenance, and operation of electrical apparatus used for system protection, metering, power factor correction and voltage regulation. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 027
Power Lineman Apprentice 7
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for power lineman apprentices in the State of California General Orders No. 95 and No. 128 Rules for overhead and underground electric line construction. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 028
Power Lineman Apprentice 8
Unit(s): 3
Class Hours: 72 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental advanced instruction for power lineman apprentices in job planning, clearing lines and equipment, estimating, and locating and repairing faulted lines and equipment. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 031
Power Lineman Skills Development
Unit(s): 0.5 - 6
Class Hours: 108 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Advanced instruction and training for special skills required of power lineman for the construction, maintenance and operation of power distribution systems. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 041
Work Methods Training
Unit(s): 1
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the related and supplemental instruction for the fourth-level apprentice power lineman in safety, tools, guys and anchors, pole setting and handling, underground tools and equipment. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 042
Rubber Gloves Training
Unit(s): 1
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for apprentice power linemen in safety, tools, guys and anchors, pole setting and handling, underground tools and equipment. Grade: Pass/No Pass Only.

Apprenticeship Power Lineman 043
Hot Sticks Training
Unit(s): 1
Class Hours: 40 Lecture total.
Prerequisite: Must be a state-indentured apprentice.
Provides the required related and supplemental instruction for apprentice power linemen in tools, accident prevention rules, rubber glove guidelines and rules. Grade: Pass/No Pass Only.
APPRENTICESHIP SURVEYING (ASV)

Apprenticeship Surveying 030
Labor Relations
Unit(s): 0.5
Class Hours: 12.5 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Provides the required related and supplemental instruction for surveying apprentices in apprenticeship rules and regulations; general history of labor-management relations in the U.S.; employer/employee relations; state and federal laws affecting workers. Grade: Pass/No Pass Only.

Apprenticeship Surveying 031
Supplemental Math for Chainman Apprentices
Unit(s): 1
Class Hours: 18 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Review of basic mathematics, algebra and geometry related to surveying: review angles, azimuths, and bearings; stationing and offsets. Grade: Pass/No Pass Only.

Apprenticeship Surveying 040
Standard First Aid
Unit(s): 0.2
Class Hours: 8 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

 Enables surveyors to cope with accidents and emergency situations with the goal of protecting and saving lives with special emphasis on those first aid skills unique to the surveying industry. American Red Cross certificate awarded upon successful completion. Grade: Pass/No Pass Only.

Apprenticeship Surveying 041
Chainman Apprentice 1
Unit(s): 4
Class Hours: 66 Lecture, 48 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.

Provides the required related and supplemental instruction for apprentice surveyors in the surveying industry; basic field operations and setting survey points; basic measurement techniques; introduction to field instruments; introduction to leveling; introduction to topographic surveys.

Apprenticeship Surveying 042
Chainman Apprentice 2
Unit(s): 4
Class Hours: 72 Lecture, 36 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.

Provides the required related and supplemental instruction for apprentice surveyors in apprentice responsibilities and public relations; identification of monuments; linear measurements; introduction to station and location systems; angles, bearings, and instruments; leveling methods; global positioning system; plan reading and grade sheets; introduction to construction surveys.

Apprenticeship Surveying 043
Chainman Apprentice 3
Unit(s): 4
Class Hours: 69 Lecture, 30 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.

Provides the required related and supplemental instruction for apprentice surveyors in measuring systems; angles, bearings, and location systems; calculations techniques; trigonometry for surveying; slope staking; electronic distance measuring and recording.

Apprenticeship Surveying 044
Chainman Apprentice 4
Unit(s): 4
Class Hours: 72 Lecture, 30 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.

Provides the required related and supplemental instruction for apprentice surveyors in coordinate geometry; horizontal and vertical curves; traverse surveys.

Apprenticeship Surveying 045
Chainman Apprentice 5
Unit(s): 4
Class Hours: 72 Lecture, 18 Laboratory total.
Prerequisite: Must be a state-indentured apprentice.

Provides the related and supplemental instruction for apprentice surveyors in safety procedures; U.S. public land surveys; property surveys; subdivisions surveys; topographic and photogrammetry surveys; staking procedures; heavy construction surveys; ALTA surveys; total stations; public relations; scope of profession and the Chief of Party program.

Apprenticeship Surveying 121
Plane Surveying and Coordinate Geometry
Unit(s): 3
Class Hours: 54 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

 Advanced field surveying principles and mathematical surveying principles including introduction and review of survey mathematics, measuring systems, coordinate geometry, and modern calculation systems. CSU

Apprenticeship Surveying 122
Advanced Coordinate Geometry
Unit(s): 3
Class Hours: 54 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

 Advanced field surveying methods and calculation principles involving coordinate geometry, including omitted measurements, intersection problems, three point resection problems, area calculation problems, complex circular curves, vertical curves, and spiral curves. CSU

Apprenticeship Surveying 123
Lapto Surveying/Aerial Photogrammetry (Formerly topographic Surveying)
Unit(s): 3
Class Hours: 54 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Advanced field surveying methods and principles involving laptop surveying, photogrammetry, and topographic surveying. CSU

Apprenticeship Surveying 124
Plan Reading and Subdivision Surveying
Unit(s): 3
Class Hours: 54 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

A study of plan reading and subdivision surveying principles and practices including plan reading basics; typical and unique subdivision plans; survey control; layout and staking of subdivisions; locating plan, calculation and specification errors. CSU

Apprenticeship Surveying 125
Major Project Plans and Survey Layout
Unit(s): 3
Class Hours: 54 Lecture total.
Prerequisite: Must be a state-indentured apprentice.

Apprenticeship Surveying 126  
Control and Geodetic Surveying  
Unit(s): 3  
Class Hours: 54 Lecture total.  
Prerequisite: Must be a state-indentured apprentice.  
Principles/methods of control and geodetic surveying. Modern positioning systems; triangulation/trilateration for geodetic control; state plane coordinate systems; astronomy for surveyors; notekeeping and computational procedures utilizing modern instruments, techniques, communications equipment; dredging and hydrographic surveys.  
CSU

Property Surveys and Legal Descriptions  
U.S. Public Land Surveys  
Unit(s): 3  
Class Hours: 54 Lecture total.  
Prerequisite: Must be a state-indentured apprentice.  
A study of the principles, procedures and methods of performing U.S. public land surveys. Subdivision of townships and sections. Retracement of original surveys and restoration of corners. Reading and interpreting property descriptions.  
CSU

Property Surveys and Legal Descriptions  
U.S. Public Land Surveys  
Unit(s): 3  
Class Hours: 54 Lecture total.  
Prerequisite: Must be a state-indentured apprentice.  
Principles, procedures and methods of researching for, and then performing property surveys. Laws affecting surveyors and ethics. Supervision and public relations. Analysis of survey data and drawing the plat. Writing descriptions of real property.  
CSU

ART (ART)

Art 100  
Introduction to Art Concepts  
Unit(s): 3  
Class Hours: 48 Lecture total.  
A study of the visual arts in relation to both personal and cultural expressions. Fundamentals of visual organization, color theory, terminology, historical art movements and concepts will be studied. Required for art majors.  
CSU/UC

Art 100H  
Honors Introduction to Art Concepts  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Prerequisite: A high school or college GPA of 3.0 or above.  
Enriched exposure to a study of the visual arts in relation to personal and cultural expression with an emphasis on critical thinking and writing. Fundamentals of visual organization, color theory, terminology, historical art movements and concepts will be studied in a seminar format.  
CSU/UC

Art 101  
Survey of Western Art History I:  
Prehistory Through the Middle Ages  
Unit(s): 3  
Class Hours: 48 Lecture total.  
The study of art from Prehistory through Middle Ages. Cultures and Civilizations are studied through visual imagery, lecture, class discussion, reading, research and field trips. Recommended sequence of courses: Art 100, Art 101, Art 102.  
CSU/UC

Art 102  
Survey of Western Art History II:  
Renaissance Through the Twentieth Century  
(Formerly Western Art History)  
Unit(s): 3  
Class Hours: 48 Lecture total.  
The study of Western art history from the Renaissance through the 20th century. Art movements and individual painters, sculptors, architects and printmakers will be presented within the context of the social, political and intellectual histories of their respective periods. Required for art majors.  
CSU/UC

Art 110  
Two-Dimensional Design  
Unit(s): 3  
Class Hours: 32 Lecture, 64 Laboratory total.  
Study of the basic terminology and principles of visual organization and color theory. Application of concepts through creative projects. Required for art majors.  
CSU/UC

Art 111  
Three-Dimensional Design  
Unit(s): 3  
Class Hours: 32 Lecture, 64 Laboratory total.  
Fundamentals of visual organization as applied to objects in-the-round. Visual space problems, structure and dimensional terminology through creative projects in various media. Required for art majors.  
CSU/UC

Art 121A  
Fundamentals of Typography  
Unit(s): 3  
Class Hours: 32 Lecture, 64 Laboratory total.  
Prerequisite: Art 195.  
Introduction to the use of type styles, appropriate type selection and their characteristics as a means toward understanding design and communication through type solutions. Projects will explore current graphics industry practices and standards, including the use of digital technology and traditional hand skills. Art 122 recommended.  
CSU

Art 121B  
Advanced Typography  
Unit(s): 3  
Class Hours: 32 Lecture, 64 Laboratory total.  
Prerequisite: Art 121A.  
This course provides continued study in typography and appropriate type selection as a means for solving complex graphic design problems, such as illustrative type or multiple page layout using traditional hand skills, digital technology and portfolio presentations.  
CSU

Art 122  
Graphic Design I  
Unit(s): 3  
Class Hours: 32 Lecture, 64 Laboratory total.  
Prerequisite: Art 195.  
Introduction to basic graphic design concepts, techniques and practices resulting in the production of effective visual communications. Projects combine text with images, using current industry standards and technology in print media and other design applications. Art 110 recommended.  
CSU

Art 128  
Introduction to Illustration  
Unit(s): 3  
Class Hours: 32 Lecture, 64 Laboratory total.  
Prerequisite: Art 130.  
Book illustration, cartooning, descriptive rendering, editorial illustration and fashion drawing are introduced. Focus is on developing technical and conceptual expertise. Course examines master works by contemporary and historic artists.  
CSU

Art 129  
Graphic Design Concepts for the Web  
Unit(s): 3  
Class Hours: 48 Lecture, 16 Laboratory total.  
Prerequisite: Art 195.  
Introduction to graphic design for Web. An overview of the elements and principles of art as they relate to Web design. Includes learning the technical requirements for colors, fonts, file optimization, effects, image resolution, and special effects. Includes creative Web design projects.  
CSU
Art 130
Introduction to Drawing
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Introductory course in expressive drawing, exploring line, form, composition, and a variety of media. Drawing from man-made objects and natural forms. Required for art majors. CSU/UC

Art 131
Beginning Life Drawing
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Introduction to drawing the human form by observing live models for studies in anatomy, structure, and composition. Exposure to traditional and contemporary figurative drawing while exploring media and methods. Required for art majors. Art 130 recommended. CSU/UC

Art 139
Experimental Mixed-Media Painting
Unit(s): 1.5 - 3
Class Hours: 32 Lecture, 64 Laboratory total.
Fundamentals of creating multi-layered images by hand, using primarily water-based media. Explores a variety of techniques and materials including transparent dyes, watercolor, acrylics, markers and photo transfer processes. Art 030 recommended. CSU/UC

Art 141
Beginning Painting
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Introduction to acrylic and/or water soluble oil painting as a creative art form with exposure to historical, traditional and contemporary painting styles. Course includes principles of composition and color theory, materials selection, tools, terminology, and techniques. Students develop basic skills painting a variety of subjects. Required of art majors. Art 110 and 130 recommended. CSU/UC

Art 183
Beginning Stained Glass
Unit(s): 2
Class Hours: 16 Lecture, 48 Laboratory total.
The craft of stained glass including design, glass cutting, soldering, lead came, and copper foil techniques. Student purchase of tools and supplies required. CSU

Art 186
Intermediate Stained Glass
Unit(s): 2
Class Hours: 16 Lecture, 48 Laboratory total.
Prerequisite: Art 183.
Continued instruction in the craft of stained glass including reinforcing and installation of large leaded glass windows. Construction of three dimensional copper foil pieces. Student purchase of tools and supplies required. May be repeated. CSU

Art 188A
Glass Exploration I
Unit(s): 2
Class Hours: 16 Lecture, 48 Laboratory total.
The craft of working with sheet glass to create mosaic, fused glass, or copper foil flat or 3-dimensional designs. May be repeated. CSU

Art 188B
Glass Exploration II
Unit(s): 2
Class Hours: 16 Lecture, 48 Laboratory total.
Continued instruction in the craft of glass mosaics, glass fusing, glass tiles, 3-dimensional designs, and sculpture. May be repeated. CSU

Art 195
Introduction to Digital Media Arts
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
Introduction to digital media arts for artists, photographers, Web designers, programmers, and animation artists. Includes an overview of Photoshop, Illustrator, InDesign, digital graphics terminology, careers, market applications and design components. Work in computer lab with scanners, printers, CD ROM’s and the Web. May be repeated. CSU

Art 221
Graphic Design II
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 122.
Intermediate level study of concepts in graphic design to assist the artist/designer in formulating aesthetic and purposeful visual communications, from roughs through finished art. Creative development of solutions to problems in common print media and other design applications. Explores the combination of images and text, using hand skills, digital technology and current graphics industry standards and practices. CSU

Art 228
Intermediate Illustration
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 128.
Further development of conceptual and technical expertise in book illustration, descriptive rendering, editorial illustration and fashion drawing. Course examines master works by contemporary and historic artists. Emphasis on developing individual creative style. May be repeated. CSU

Art 229
Multimedia Applications for the Web
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
Prerequisite: Art 129.
Introduction to the use of multimedia components, images, typography, motion and audio, for designing Web sites. Software may include Photoshop, Dreamweaver, SoundEdit 16 and Flash. Projects include conceptualizing, storyboarding, and designing Web page layout. Application of design elements to Web page creation. May be repeated. CSU

Art 230
Intermediate Drawing
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 130.
Continued study in drawing with additional opportunities in graphic expression. Further exploration of media, including colored pencils, oil pastel, charcoal and mixed media. Continuation of composition concepts with emphasis on individual expression. CSU/UC

Art 231
Intermediate Life Drawing
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 131.
Continued experience in drawing from the live model with opportunity for development of self-expression. Further exploration of media and techniques. Projects vary each semester. CSU/UC

Art 232
Advanced Life Drawing
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 231.
Intensive study of the figure with further development of drawing skills, composition, techniques and media utilizing the live model. Projects vary each semester. CSU/UC
Art 233
Advanced Drawing
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 230 or portfolio review.
To further develop individual graphic expression, students will plan a series of drawing problems to be executed during the semester under the instructor's direction. Exploration of new materials and techniques. Field trips to artists' studios and museums. May be repeated. CSU/UC

Art 240
Intermediate Watercolor
Unit(s): 2
Class Hours: 16 Lecture, 48 Laboratory total.
A continuing course in transparent and opaque watercolor. Further exploration of media and techniques with emphasis on compositional and conceptual interpretation through individual expression. May be repeated. CSU/UC

Art 241
Intermediate Painting
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 141.
An intermediate level class designed to promote and advance the creative development of those with basic skills in water-soluble oil and/or acrylic painting. Opportunity for further study of historical and contemporary references and to increase experience with new media, methods and techniques. Emphasis on artistic expression and individual creative problems. May be repeated. CSU/UC

Art 242
Advanced Painting
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 241.
An advanced level studio course providing opportunity for further refinement of painting skills with increasing exposure to contemporary styles. Emphasis on research and individual creative problems in painting. Exploration into a personal mode of expression through development of media, technique and style. Classroom studio use of oils limited to water-soluble oil paint only. May be repeated. CSU/UC

Art 250
Advanced Studio Concepts
Unit(s): 3
Class Hours: 32 Lecture, 64 Laboratory total.
Intensive study in visual arts for majors with studio emphasis. Exposure to contemporary art directions, trends and job markets. Different studio problems each semester. May be repeated. CSU

ASTRONOMY (ASTR)
Astronomy 109
Introduction to the Solar System
Unit(s): 3
Class Hours: 48 Lecture total.
Surveys history of astronomy, recent research and space flight observations of the planets, moons, and other solar system objects. Explores light and gravity to understand formation, properties and motion of Solar System objects.

Astronomy 110
Introduction to Stars and Galaxies
Unit(s): 3
Class Hours: 48 Lecture total.
Surveys recent research about the sun and other stars, exploding stars and black holes, the Milky Way galaxy, other galaxies and the big bang theory. Students may have the opportunity to visit the planetarium. CSU/UC

Astronomy 112
Introduction to Cosmology
Unit(s): 3
Class Hours: 48 Lecture total.
An introduction to the origin, structure, and evolution of the universe with an emphasis on major cosmological models. Discussions will include fundamental concepts of light and matter and their connections to current research including dark matter and dark energy and their implications for the fate of the universe. Concurrent enrollment in Astronomy 140 is recommended. CSU/UC

Astronomy 140
Astronomy Laboratory
Unit(s): 1
Class Hours: 48 Laboratory total.
Prerequisite: Astronomy 109, 110, 110H, 112 or concurrent enrollment.
Utilizes experimental techniques to explore and comprehend properties and motions of celestial objects. Basic naked-eye, binocular and small telescope observing techniques will be introduced. Field trips to local planetaria and dark sky locations may be included. CSU/UC

Biology 109
Fundamentals of Biology Laboratory
Unit(s): 1
Class Hours: 48 Laboratory total.
Prerequisite: Biology 109/109H or concurrent enrollment.
Laboratory experiments to identify and illustrate significant organisms and their structures. Emphasis is placed on the relationship of all organisms from an anatomical, physiological, and ecological framework. Content correlates to Biology 109/109H lecture material. CSU/UC

Biology 109H
Honors Fundamentals of Biology
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
Traditional Biology enriched in breadth and depth by extensive outside reading assignments and guest lecture presentations. Emphasis is on individual preparation for discussion and analysis of pertinent topics using critical oral and written expression. Concurrent enrollment in Biology 109L is recommended. Designed for non-biology majors. CSU/UC

Biology 109L
Fundamentals of Biology Laboratory
Unit(s): 1
Class Hours: 48 Laboratory total.
Prerequisite: Biology 109/109H or concurrent enrollment.
Laboratory experiments to identify and illustrate significant organisms and their structures. Emphasis is placed on the relationship of all organisms from an anatomical, physiological, and ecological framework. Content correlates to Biology 109/109H lecture material. CSU/UC

Biology 139
Health Microbiology
Unit(s): 4
Class Hours: 48 Lecture, 64 Laboratory total.
Presents practical and theoretical aspects of medical microbiology to meet the needs of those in allied health professions. Provides basic knowledge of the microbial world by covering diversity, structure, metabolic and genetic characteristics, cultivation and control. Emphasis is placed on human-microbe interactions especially infectious diseases. Laboratory deals with identification, growth, and control of microorganisms. Prior completion of Biology 109 or 149 recommended. CSU/UC
Biology 149
Human Anatomy and Physiology
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total. Human anatomy and physiology stressing the interrelationships between normal structure and function. Designed for students in the allied health sciences, particularly those desiring the two-year RN degree. May not meet requirements for physical education or BSN majors. CSU/UC

Biology 177
Human Genetics
Unit(s): 3
Class Hours: 48 Lecture total. Introductory course in genetics. Topics include the principles of Mendelian genetics, mechanisms of mitosis and meiosis, process of transcription, translation and protein synthesis, non-Mendelian patterns of inheritance, the cell cycle, and cell structure. Discussions relevant to current social concerns about genetics covering topics such as cloning, DNA fingerprinting, genetic engineering, prenatal diagnosis, gene therapy and the Human Genome Project. CSU/UC

Biology 200
Environment of Man
Unit(s): 3
Class Hours: 48 Lecture total. A biological and physical science introduction to environmental problems such as energy, resources, pollution, land use, population and food, including economic and political factors. A natural science elective. (Same as Environmental Studies 200.) CSU/UC

Biology 211
Cellular and Molecular Biology
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total. Prerequisite: Mathematics 080 or 081. An investigation into the molecular and cellular basis of life, including the evolution of cells, cell structure and function, energy and information flow, cellular reproduction, genetics, and the molecular basis of inheritance. Required of majors in Biology, Medicine, Forestry, and Agriculture. This course is a prerequisite for Biology 212 and Biology 214. Prior completion of Chemistry 119 or 209 or equivalent recommended. CSU/UC

Biology 212
Animal Diversity and Ecology
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total. Prerequisite: Biology 211. A study of ecological principles, and relationships between animal diversity and ecosystems. Habitat, populations, ecological interactions, and environmental influences are stressed while surveying animal diversity and addressing structure, function, behavior, and adaptation of major taxonomic groups. Required of majors in biology, medicine, forestry and agriculture. Field trips required. CSU/UC

Biology 214
Plant Diversity and Evolution
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total. Prerequisite: Biology 211. Principles and processes of evolution leading to biodiversity. Survey of the Bacteria, Archaea, and the Eukarya domain, emphasizing the kingdoms Protista, Fungi and Plantae with a detailed view of the evolutionary adaptations of the anatomy, physiology, and life cycles of these organisms. Field trips required. CSU/UC

Biology 229
General Microbiology
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total. Prerequisite: Biology 109/109H and 109L, or 139, or 149, or 211 or Chemistry 119 or 209. Introduction to microorganisms, their classification, structure, biochemistry, growth, control and their interactions with other organisms and the environment. Designed for biology, preprofessional, and prenursing (BSN) majors. CSU/UC

Biology 239
General Human Anatomy
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total. Structure of the human body. Systems, organs, and tissues are studied from human skeletons, models, charts, slides and CD-ROM programs. Laboratory includes the dissection of a cadaver; and periodic demonstrations of a prosected cadaver as available. CSU/UC

Biology 249
Human Physiology
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total. Prerequisite: Biology 239. Microscopic, macroscopic and dynamic view of the human physiological processes. The lecture portion includes a thorough consideration of both “cell and systems” physiology. Laboratory work includes the use of techniques used in basic research, an introduction to the use of standard medical equipment and the performance of medical laboratory tests. Non-invasive experiments are performed on students enrolled in the class. CSU/UC

Business 090
Principles of Project Management
Unit(s): 3
Class Hours: 48 Lecture total. Utilizing project planning tools and techniques, learn how to define, plan, execute and deliver projects of all types and sizes. Emphasizing practical application using case studies to organize, schedule and manage projects effectively. Industry guest speakers included. (Same as Public Works 080.) CSU/UC

Business 100
Fundamentals of Business
Unit(s): 3
Class Hours: 48 Lecture total. An introduction to the basic fundamentals of business. A survey of marketing, management, production, accounting, finance, and economics and how they interrelate in the business environment. CSU/UC

Business 101
Business Law
Unit(s): 3
Class Hours: 48 Lecture total. Legal fundamentals important in commerce and personal business transactions. Includes a study of types of law, the courts, torts, contracts, sales and commercial paper. CSU/UC
Business 103
Cooperative Work Experience Education-Occupational
Unit(s): 1 - 4
Class Hours: Arranged.
Supervised paid or volunteer experience in student's major including new or expanded responsibilities. One credit for each 5 hours worked per week to a maximum of 4 units for 20 hours worked per week each semester. Limitation of 16 units in occupational cooperative education courses. Students must be enrolled in a minimum of 7 units including 4 units for Business 103. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU

Business 105
Legal Environment of Business
Unit(s): 3
Class Hours: 48 Lecture total.
A study of the courts, torts (including product liability), crimes, contracts, employment, partnerships, corporations, government regulation, and international law. CSU/UC

Business 106
Culture and International Business-Kiss, Bow or Shake Hands
Unit(s): 3
Class Hours: 48 Lecture total.
An introduction to different cultures and their effects on international business. Analysis of cross-cultural attitudes towards management, status, rules, relationships, motivating employees and negotiation. CSU

Business 120
Principles of Management
Unit(s): 3
Class Hours: 48 Lecture total.
Principles, methods, and procedures essential to the successful management of human and financial resources. Planning, decision making, staffing, directing, motivating, leading, communicating, controlling and the application of managerial skills. (Same as Management 120.) CSU

Business 121
Human Relations and Organizational Behavior
Unit(s): 3
Class Hours: 48 Lecture total.
The role of the manager and management's relationship to employees. Includes the application of motivational theories, communications, leadership, and organizational structure. (Same as Management 121.) CSU

Business 125
Introduction to International Business
Unit(s): 3
Class Hours: 48 Lecture total.
A survey course previewing international marketing, finance, law and logistics. Includes how a company decides to go global and how products are made, transported and sold around the world. CSU

Business 127
Introduction to E-Commerce
Unit(s): 3
Class Hours: 48 Lecture total.
Electronic commerce from a managerial perspective focusing on the retailing, business-to-business and service industries. Topics include: E-commerce infrastructure, intranets and extranets, electronic payment systems, marketing research, advertising, E-commerce strategies, and privacy issues. CSU

Business 130
Personal Finance
Unit(s): 3
Class Hours: 48 Lecture total.
Various aspects of personal financial planning covering family budgeting, investments, housing, insurance, taxation, estate planning, credit and its uses, planning for retirement, installment buying. CSU

Business 150
Introduction to Computing and Application Software
Unit(s): 4
Class Hours: 64 Lecture total.
Introduction to computer concepts, computer organization, computer operation, information systems and business problem-solving through the use of application software. CSU/UC

Business 160
Introduction to Stock and Bond Investments
Unit(s): 3
Class Hours: 48 Lecture total.
An introductory course in investment decision-making. Topics covered are types of securities, securities markets, stocks, bonds, options, mutual funds, value analysis of international investing, portfolio management, and financial planning. CSU

Business 170
Principles of Small Business Management
Unit(s): 3
Class Hours: 48 Lecture total.
Practical business skills needed to start and operate a small business. Includes information on risk management, site location, legal aspects, financing, budgeting, merchandising, promotion, and management techniques. CSU

Business 171
Business Plan for Small Business
Unit(s): 3
Class Hours: 48 Lecture total.
Business planning for the opening or continued successful operation of a small business through the preparation of a written business plan. Concurrent enrollment in Business 170 recommended. CSU

Business 172
Small Business Marketing and Advertising
Unit(s): 3
Class Hours: 48 Lecture total.
Techniques for promoting a small business. Includes preparation of advertisements, customer research, media selection, budgeting and scheduling, and the evaluation of promotional effectiveness. (Same as Marketing 172.) CSU

Business 175
Online Entrepreneurship
Unit(s): 3
Class Hours: 48 Lecture total.
Learn how to build and implement a business strategy for the Internet, including business specific considerations, online marketing and E-commerce strategies. This class is designed to help potential online entrepreneurs develop startup procedures, explore ideas and implement plans. CSU

Business 222
Business Writing
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Overview of oral and written communication skills used in business; emphasizes guidelines for improving writing and speaking skills, common solutions to common communication problems, ethical issues facing business communicators today, instructions on how to identify areas of legal vulnerability, and tested techniques for communicating successfully in today's high-tech, international business environment. CSU

CHEMISTRY (CHEM)
Chemistry 119
Fundamentals - General and Organic
Unit(s): 5
Class Hours: 64 Lecture, 48 Laboratory total.
Prerequisite: Mathematics 060 or 061.
No prior chemistry needed. For majors in nursing, dietetics, family and consumer studies, pharmacy technology, biology, and physical education. Includes atomic structure, nuclear chemistry, bonding, solutions, acids and bases, organic nomenclature, hydrocarbons and alcohols. CSU/UC
Chemistry 209
Introductory Chemistry
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Mathematics 080 or 081. Basic concepts of matter: atomic structure, formulas, equation writing, nomenclature, gases and kinetic theory. Emphasizes properties of solutions, and the mole concept in quantitative chemistry. Prepares students for biology and Chemistry 219. CSU/UC

Chemistry 210
General, Organic, and Biochemistry
Unit(s): 5
Class Hours: 64 Lecture, 48 Laboratory total.
Prerequisite: Chemistry 209 or a passing score on the current chemistry placement test and Mathematics 080 or 081. An introduction to the fundamental concepts of general, organic and biochemistry for majors in nursing, and other allied health majors. Includes atomic structure, nuclear chemistry, bonding, solutions, acids and bases, organic nomenclature, hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids, carbohydrates, proteins, lipids, nucleic acids and metabolism. CSU/UC

Chemistry 219
General Chemistry
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total.
Prerequisite: Mathematics 080 or 081 and Chemistry 209 or Mathematics 080 or 081 and a passing score on the current chemistry placement test. Fundamental principles and concepts of chemistry including, but not limited to, atomic structure, quantum theory, periodic properties, stoichiometry, oxidation-reduction, molecular structure and bonding, gas laws, states of matter, solutions, chemical kinetics and chemical equilibrium. CSU/UC

Chemistry 229
General Chemistry and Qualitative Analysis
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total.
Prerequisite: Chemistry 219. Continuation of Chemistry 219 including, but not limited to, ionic equilibrium, acid/base chemistry, thermodynamics and electrochemistry, nuclear chemistry and descriptive chemistry. CSU/UC

Chemistry 249
Organic Chemistry I
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total.
Prerequisite: Chemistry 229. Alkanes, alkenes, alkynes, alkyl halides, organometallics, alcohols, ethers, aromatics, and carbonyl compounds: structure and bonding, nomenclature, descriptive chemistry, reaction mechanisms, synthetic methods. IR spectroscopy. Laboratory: separations/purifications and identification, simple syntheses. CSU/UC

Chemistry 259
Organic Chemistry II
Unit(s): 5
Class Hours: 48 Lecture, 96 Laboratory total.
Prerequisite: Chemistry 249. Continuation of Chemistry 249. Includes units on aromatics, carbonyl compounds, carboxylic acids and their derivatives, amines, and classes of biologically important compounds. More complex synthetic routes are explored. Lab work includes multi-step syntheses. Reaction mechanisms and use of spectroscopic techniques continue to be emphasized. CSU/UC

CHICANO STUDIES (CHST)
Chicano Studies 101
Introduction to Chicano Studies
Unit(s): 3
Class Hours: 48 Lecture total. An interdisciplinary survey of Chicano society from a sociological, economic, political, philosophical, and cultural perspective from pre-Columbian civilizations to contemporary society. This course is designed to present a foundation in Chicano history. CSU/UC

COMMUNICATION (COMM)
Communication 100
Introduction to Interpersonal Communication
Unit(s): 3
Class Hours: 48 Lecture total. Introduction to communication skills of listening, perception, language usage, non-verbal communication, and conflict management, emphasizing methods of overcoming barriers to effective communication in interpersonal relationships. Recommended for students who have completed or are currently enrolled in English 101.

CSU/UC

Communication 100H
Honors Introduction to Interpersonal Communication
Unit(s): 3
Class Hours: 48 Lecture total. Prerequisite: A high school or college GPA of 3.0 or above. Enriched approach for honors students. Highly interactive seminar mode of instruction. Stresses the development of analytical thinking, writing and speaking skills. An introduction to communication skills of listening, perception, language usage, non-verbal communication, and conflict management, emphasizing methods of overcoming barriers to effective communication in interpersonal relationships. Completion or concurrent enrollment in English 101 recommended. CSU/UC

Communication 101
Group Dynamics
Unit(s): 3
Class Hours: 48 Lecture total. Principles and methods of communication as applied in the small group setting. Emphasis on communication skills, processes, and operations in the small group. Includes understanding group dynamics and cooperative problem solving. ACE 087 recommended for non-native speakers. CSU/UC

Communication 102
Listening
Unit(s): 1.5
Class Hours: 24 Lecture total. For students wanting to assess and improve their current listening/responding capabilities. Emphasizes appropriate application of skills. CSU

Communication 110
Public Speaking
Unit(s): 3
Class Hours: 48 Lecture total. Teaches critical thinking skills in relation to public speaking. Emphasis on the process, principles and major facets of critical thinking with practice through oral presentations. ACE 087 recommended for non-native speakers. CSU/UC

Communication 111
Argumentation and Debate
Unit(s): 3
Class Hours: 48 Lecture total. Principles of debate techniques with material to forms of debate on current issues. Completion of or concurrent enrollment in English 101 recommended. ACE 087 recommended for non-native speakers. CSU/UC
Communication 120
Introduction to Intercultural Communication
Unit(s): 3
Class Hours: 48 Lecture total.
A general view of the sociological, psychological, and communication patterns of major cultural groups. Special emphasis on the methods, skills, and techniques necessary for effective intercultural, crosscultural, and interracial communication. Stresses the development of analytical thinking and writing skills. ACE 087 recommended for non-native speakers. CSU/UC

Communication 120H
Honors Introduction to Intercultural Communication
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: High school or college GPA of 3.0 or above
Enriched for honors students. In-depth, seminar format examination of sociological, psychological, and communication patterns of major cultural groups. Methods, skills, and techniques for effective intercultural and interracial communication. Stresses analytical thinking skills. CSU/UC

Communication 130
Forensics Team
Unit(s): 1 - 2
Class Hours: 96 Laboratory total.
Participate in novice competitive intercollegiate speech, debate and theater team. Instruction and direction for the preparation, creation and performance of interpretation of literature programs, limited preparation speeches, readers’ theater, public debate, and general public address. CSU

Communication 131
Individual Events
Unit(s): 1 - 2
Class Hours: 96 Laboratory total.
Individual Forensics events training for intercollegiate speech competition. Instruction and direction for the preparation, creation and performance of interpretation of literature programs, limited preparation speeches, and general public address. May be repeated. CSU

Communication 132
Team Events
Unit(s): 1 - 2
Class Hours: 96 Laboratory total.
Team Forensics events training for intercollegiate speech competition. Instruction and direction for the creation and performance of readers’ theater. Preparation for current event debates and limited preparation parliamentary debate. Student has opportunity to participate in community and civil debates. May be repeated. CSU

Communication 133
Voice and Diction for Effective Communication
Unit(s): 3
Class Hours: 48 Lecture total.
Basic speech and voice production. Anatomy and physiology related to respiration (breathing/loudness), phonation (sound/pitch) and articulation (diction/clarity). Practice in improving vocal skills for effective communication. Designed for individuals who have special demands on vocal production in their vocation. ACE 087 recommended for non-native speakers. CSU

Communication 134
Oral Interpretation
Unit(s): 3
Class Hours: 48 Lecture total.
Oral performance of prose, poetry, and drama; practice in speaking, interpretation, and analysis of literature, with training in the principles of effective delivery. ACE 087 recommended for non-native speakers. CSU/UC

Communication 135
Readers Theatre
Unit(s): 3
Class Hours: 48 Lecture total.
Research, construct, rehearse, and perform interpretation of literature in an ensemble setting. Learn basic elements of choral reading, singing, and movement. May be repeated. CSU/UC

Communication 225
Gender Communication
Unit(s): 3
Class Hours: 48 Lecture total.
Practical application, techniques, and in-depth analysis of male and female communication regarding language usage, biological and social influences, mass media, marriage, organizations, same-sex/cross-sex friendships, and education. Recommended for students who have completed Communication 100, 101, 110, or 111 with a “C” or better. CSU/UC

Communication 225H
Honors Gender Communication
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
Enriched approach in application, techniques and in-depth analysis of male and female communication regarding language usage, biological and social influences, mass media, marriage, organizations, same-sex/cross-sex friendships and education. Students will be required to do individual/group professor-guided research. Recommended for students who have completed Communication 100, 101, 110, or 111 with a “C” or better. CSU/UC

Communication 230
Forensics Team
Unit(s): 1 - 2
Class Hours: 96 Laboratory total.
Prerequisite: Communication 130.
Participate in the competitive intercollegiate speech, debate and theater team. Instruction and direction for the junior competition of: interpretation of literature programs, limited preparation speeches, readers’ theater, public debate, and general public address. CSU

Communication 231
Individual Events
Unit(s): 1 - 2
Class Hours: 96 Laboratory total.
Prerequisite: Communication 130.
Individual Forensics event training for Junior level intercollegiate speech competition. Instruction and direction for the preparation, creation and performance of: interpretation of literature programs, limited preparation speeches, and general public address. May be repeated. CSU

Computer Information Systems (CIS)

Computer Information Systems 101
Introduction to Microsoft Office
Unit(s): 3
Class Hours: 48 Lecture total.
Learn the basics of Microsoft Office, a suite of applications for Windows (Word, Excel, Access and PowerPoint). Acquire skills for creating, formatting, printing and editing business documents. CSU

Computer Information Systems 103
Microsoft Word
Unit(s): 3
Class Hours: 48 Lecture total.
Step-by-step procedures are taught for creating, editing, and printing business documents with Microsoft Word. Ability to type is recommended. CSU
Computer Information Systems 105
Introduction to Microsoft Excel
Unit(s): 1.5
Class Hours: 24 Lecture total.
Introduction to Excel spreadsheets including formatting, graphics, and formulas common to business applications. Prepares student for MS Excel Certification. CSU

Computer Information Systems 106
Microsoft Excel
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to Microsoft Excel and how it facilitates solving business problems. Covers data management and reporting using spreadsheets, charts, database tools and macros. CSU

Computer Information Systems 108
Microsoft Access
Unit(s): 3
Class Hours: 48 Lecture total.
Relational Database Management using Microsoft Access. Includes design, creation and maintenance of a RDBMS, reports and form generation, queries, importing and exporting data, macros and modules using Access Basic. CSU

Computer Information Systems 110
Introduction to Microsoft Project
Unit(s): 3
Class Hours: 48 Lecture total.
Students will learn how to plan a project, create project schedules, communicate project information, use the critical path, assign resources, track progress, and share information across applications and the Web using Microsoft Project. CSU

Computer Information Systems 122
Dreamweaver
Unit(s): 3
Class Hours: 48 Lecture total.
Learn to use Dreamweaver to create dynamic web sites. Topics include creating tables, forms, layers, style sheets, inserting dynamic HTML features, creating Dreamweaver documents, manipulate text, work with different image formats and establish hyperlinks. Learn to create advanced Dreamweaver web designs for business. CSU

Computer Information Systems 124
Adobe Photoshop
Unit(s): 3
Class Hours: 48 Lecture total.
Students learn how to use the capabilities of Adobe Photoshop, an image editing program, to enhance the creativity and production of desktop projects. Previous class in scanning is advisable. CSU

Computer Information Systems 126
Web Site Development for Business
Unit(s): 3
Class Hours: 48 Lecture total.
Learn the basic concepts of web site design, development and publishing using HTML (Hypertext Markup Language). Students will design and create a functional web site incorporating hyperlinks, tables, frames, forms, and digital graphics images. Knowledge of windows recommended. CSU

Computer Information Systems 128
Networking Technology
Unit(s): 3
Class Hours: 48 Lecture total.
A comprehensive overview of networking technology, including a history of LAN development and the uses and benefits of LAN's. Students are introduced to LAN terminology, components, standards and upper level protocols. CSU

Computer Information Systems 130
HTML
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction of HTML (Hypertext Markup Language) scripting and the creation of Hypertext documents. Topics will include the specification of the form and function of documents, inclusion of hypertext links, images, frames, tables, forms, JavaScript, VRML, and new features of HTML. CSU

Computer Information Systems 132
JavaScript
Unit(s): 3
Class Hours: 48 Lecture total.
Students will be introduced to the syntax of JavaScript, the methods used to incorporate JavaScripts into HTML documents, and using JavaScripts to create interactive forms. Students will also learn to enhance Web Pages through the use of Interactive Programming utilizing Forms, Frames, Documents, Windows, Loops, Strings, and Cookies. CSU

Computer Information Systems 134
XML Programming
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to XML (Extensible Markup Language). The course covers what it is, how it works, what technologies surround it, and how it can be used in data handling and web pages. Knowledge of HTML recommended. CSU

Computer Information Systems 135
Advanced FLASH
Unit(s): 3
Class Hours: 48 Lecture total.
This course is for FLASH users who want to enhance their movies by adding ActionScript. ActionScript is a modular, object-oriented programming language that allows mind-blowing effects, event programming, and user interactivity to be added to a FLASH movie. A working knowledge of FLASH is recommended. CSU

Computer Information Systems 144
Creating Business Presentations for the Web
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to Adobe PREMIERE, CAMTASIA, and Microsoft PRODUCER for PowerPoint 2002. Students will plan and create an online business presentation using digital video, audio, and screen capture. This presentation may be used for web-based training, customer service, help-desk, or other business purpose. CSU/UC

Computer Information Systems 146
Videoconferencing for Business
Unit(s): 3
Class Hours: 48 Lecture total.
Covers the hardware requirements, technology, and planning necessary for the effective application of interactive videoconferencing. Cable modems, ADSL/DSL, video and voice-over IP, broadband wireless, information security and hands on application. CSU

COMPUTER SCIENCE (CMPR)

Computer Science 100
The Computer and Society
Unit(s): 3
Class Hours: 48 Lecture total.
An introduction to the area of computers and their relationship to today's information society. Examines a broad overview of topics including hardware, software, networking, information technology, and the Internet. The student will explore the implication and effect of technology on society, careers and ethics. CSU/UC
Computer Science 100H
Honors the Computer and Society
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or higher.
Enriched introduction to computer concepts, technology, issues and applications. Information is presented to enable students to recognize and evaluate the positive and negative impacts that computers may have on individuals and society. Emphasizes a student-oriented exploration of the fundamentals of Internet research, e-mail, Web page publishing, word processing, spreadsheet and PowerPoint software using a PC. **CSU/UC**

Computer Science 105
Visual BASIC Programming
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to programming and Visual BASIC. Emphasis on programming fundamentals and the creation of applications with Visual BASIC. No previous programming experience required. **CSU/UC**

Computer Science 106
Intermediate Windows Programming with Visual Basic.net
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Computer Science 105.
Intermediate programming for those seeking to further develop their skills using Visual Basic programming language. Course will cover intermediate features of the Visual Basic programming language, including reading/writing to a disk file, loops, functions, classes and objects. **CSU**

Computer Science 111
Introduction to Computer Organization
Unit(s): 4
Class Hours: 64 Lecture total.
Prepared to present the organization and structure of computers at hardware and software levels: analysis and synthesis of combinational and sequential logic, data representation and manipulation, language structures and translation, and process administration and management. Recommended preparation: Computer Science 121 or equivalent. **CSU/UC**

Computer Science 112
Java Programming
Unit(s): 3
Class Hours: 48 Lecture total.
Study of the Java language, its features and applications. Previous structured programming experience recommended. **CSU/UC**

Computer Science 119
Fundamentals of Assembly Programming
Unit(s): 4
Class Hours: 64 Lecture total.
Structure of computers, number and character representation, word and instruction formats, flow charting, machine and assembly language programming, addressing, stack overflow, indexing, subroutines, mnemonics, and interpreting systems. Includes actual machine use. Recommended preparation: proficiency in a programming language. **CSU/UC**

Computer Science 120
Introduction to Programming
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
Prerequisite: Mathematics 080 or 081.
Introduction to programming concepts including data types, mathematical operations, elementary input/output, and the basic control structures of sequence, selection, iteration, and functions. Program design methods utilizing structured and object-oriented methodologies will be emphasized. **CSU/UC**

Computer Science 121
Programming Concepts
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
Prerequisite: Computer Science 120
Continuing introduction to programming concepts, development of algorithms utilizing functions, classes and the primary control structures. Program I/O; strings and arrays; data types: classes and objects. Documentation techniques. **CSU/UC**

Computer Science 131
Data Structures Concepts
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Computer Science 121.
Application of simple data structures concepts (ADT’s) including linked structures, stacks, queues and trees. Use of pointers, recursion, sorting algorithms, classes and object-oriented programming to implement data structures. **CSU/UC**

Computer Science 157
Intro to Robotics Programming
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to Robotics Programming using the LEGO Mindstorms platform. Basic mechanical, electronics, and control issues in Robotics are discussed, including the design and implementation of robotic systems. Students program a robot using several programming languages including the LEGO “NXT-G” programming language, as well as RobotC, Not Exactly C (NXC) and Visual Basic. **CSU**

Computer Science 205
Advanced Visual Basic
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Computer Science 105.
Advanced programming for those seeking to further develop their skills using Visual Basic programming language. Course will cover the advanced features of the Visual Basic programming language, data structures, and advanced programming techniques available with Visual Basic. **CSU/UC**

Computer Science 206
Visual Basic for Web Development
Unit(s): 3
Class Hours: 48 Lecture total.
Web Development using the Visual Basic programming language. Students will use Visual Basic and ASP to develop Internet applications including Web browsers and databases. Completion of Computer Science 205 is recommended. **CSU**

Computer Science 213
C# Programming
Unit(s): 3
Class Hours: 48 Lecture total.
Study of the C# programming language. Topics covered include .NET environment, object-oriented programming including inheritance and polymorphism, and writing graphical user interfaces. Completion of Computer Science 121 is recommended. **CSU/UC**

Computer Science 257
Applied Robotics and Embedded Programming
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to microprocessors for devices used in robotics, telephones, tablet PC’s, the automotive industry, and home automation. The Basic Stamp and Propeller microprocessors and Single-Board Computers (SBC) will be used to design and implement robotic systems using Windows Embedded CE, Visual Basic, C#, PBasic, and the Spin programming languages.

**COSMETOLOGY (COSM)**

Cosmetology 040
Cosmetology
Unit(s): 0.5 - 38
Class Hours: 680 Lecture, 920 Laboratory total.
Principles and practices in cosmetology. Preparation for Board Examination for licensing by the State of California Board of Barbering and Cosmetology. Laboratory participation includes student demonstration that all performance objectives have been met. Basic cosmetology kit at student’s expense. Open Entry/Open Exit.
Cosmetology 050
Manicuring
Unit(s): 0.5 - 8
Class Hours: 50 Lecture, 350 Laboratory total. Complete instruction of nail care as required by State Board of Barbering and Cosmetology for licensure preparation to operate a nail salon. Nail sculpture included. All phases of artificial nails covered. Student must purchase basic manicuring tools. Open Entry/Open Exit.

Cosmetology 070
Barbering
Unit(s): 0.5 - 35
Class Hours: 525 Lecture, 975 Laboratory total. Instruction in the theory of barbering as required by the State Board of Barbering and Cosmetology and licensor preparation. Barbering kit at student's expense. Open Entry/Open Exit.

Cosmetology 080
Esthetician
Unit(s): 0.5 - 13
Class Hours: 75 Lecture, 525 Laboratory total. Instruction in the theory and practical applications of an esthetician as required by the State of California Barbering and Cosmetology Board. Basic skin care tools at student's expense. Open Entry/Open Exit.

COUNSELING (CNSL)

Counseling 101
Educational, Personal, Cultural, and Career Exploration
Unit(s): 3
Class Hours: 48 Lecture total. Designed to promote academic and career success by exploring student development from an educational, sociological, psychological and physiological perspective. Exploration of higher education opportunities, potential career interests and a focus on educational planning. Recommended for students planning to complete an associate degree, and/or to transfer to a university. CSU/UC

Counseling 106
Inquiries Into Higher Education
Unit(s): 1
Class Hours: 16 Lecture total. A comprehensive and advanced study of selecting and completing an academic plan, developing goals and objectives and choosing a college major. Topics include: study techniques, assessing interests and skills and planning a major. Grade: Pass/No Pass Only. CSU

Counseling 110
University Transfer Research
Unit(s): 0.5 - 2
Class Hours: 32 Lecture total. Development and enhancement of decision-making strategies for transfer students. Identification of educational/career goals. Analysis, comparison, and evaluation of university entrance, major, and post-graduate requirements and student services. On-site research/field study at universities. CSU

Counseling 111
Learning Skills Development
Unit(s): 1
Class Hours: 16 Lecture total. Application of educational/psychological principles in the development of effective learning skills for college courses. Topics also include identifying diversities of cultural influence, learning style, time management, textbook study/comprehension, note-taking, research preparation and testing. May be repeated. CSU

Counseling 113
Learning Strategies for College Success
Unit(s): 3
Class Hours: 48 Lecture total. Students will develop learning strategies that will help them to succeed in college level courses. Students will learn to establish effective study habits suited to individual learning styles by focusing on technique and practice. Learning Strategies surveyed will include: time management, listening, notetaking, textbook study, exam preparation, memory techniques, library skills and critical reading. Students will be introduced to lifestyle techniques that promote a healthy work/life balance for busy college students and working adults. CSU

Counseling 116
Career/Life Planning and Personal Exploration
Unit(s): 3
Class Hours: 48 Lecture total. This course is designed to assist students in successfully establishing and achieving education, career and life goals. Students are guided through a reflective process that focuses on values, interests, personality, skills and learning styles. Career and education options are researched, and students are exposed to college resources and support services. Decision making models and goal setting techniques are examined and will be used to develop short and long term education, career and life plans. This course has a material fee of $20.00. CSU/UC

Counseling 118
Self Exploration and the Teaching Profession
Unit(s): 2
Class Hours: 32 Lecture total. An exploration of "self" covering theories of values, interests, skills and personality as applied to the teaching profession. Topics include culturally diverse student populations, career ladders and options, and academic preparation required for employment. Students will develop an awareness of psychological and sociological forces within the workplace. Career and life plans for the teaching profession or alternate career paths will be developed. CSU

Counseling 123
Introduction to Leadership Training for College Orientation Programs
Unit(s): 1
Class Hours: 16 Lecture total. This course is designed to provide leadership training related to the implementation of college orientation programs. Topics include: orientation as a process, leadership theory and styles, dynamics of group interaction, and the value of campus organizations, programs, and services. CSU

Counseling 125
Exploring Leadership
Unit(s): 3
Class Hours: 48 Lecture total. Introduction to leadership theory. Topics include historical and future perspectives, as well as the purpose of leadership in a constantly changing environment. Understand leadership in the context of small and large organizations. Explore the individual's value system and the relationship to the leadership process. Examine stressors that impact a leader's ability to function in a healthy manner. CSU

Counseling 144
Reasoning and Problem Solving
Unit(s): 3
Class Hours: 48 Lecture total. The nature of critical thinking, models and strategies; common fallacies of reasoning, self-regulation in the thinking process; application of critical thinking to complex issues of life. (Same as Philosophy 144.) CSU/UC
Counseling 150
Introduction to Human Services
Unit(s): 3
Class Hours: 48 Lecture total.
The history and philosophy of human services including theoretical frameworks, the function and orientation of human service organizations and the roles and qualifications of human service workers. A study of the target populations served by the human services and the professional, ethical and cultural issues facing the human service field. **CSU**

Counseling N45
Orientation to College
Unit(s): 0.5
Class Hours: 8 Lecture total.
Introduction to college services and programs. Identification and exploration of programs and services designed to assist students entering college credit courses. Grade: Pass/No Pass Only.

CRIMINAL JUSTICE (CJ)

Criminal Justice 101
Introduction to Criminal Justice
Unit(s): 3
Class Hours: 48 Lecture total.
A survey of the philosophy and history of criminal justice system (law enforcement, courts, corrections); processes of justice from detection of crime to parole; evaluation of modern criminal justice delivery systems. **CSU/UC**

DANCE (DNCE)

Dance 100
Dance History and Appreciation
Unit(s): 3
Class Hours: 48 Lecture total.
The development of dance in Western Europe and the U.S. from ancient times to the present. Explores dance as an emerging art form from the Renaissance to the 20th century. Emphasizes the contemporary dance heritage of the United States. **CSU/UC**

Dance 106A
Introduction to Modern Dance
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
An introduction to modern dance emphasizing movement technique, dance vocabulary and creative individual expression. Includes an introduction to choreographic principles and the historical/cultural context of American modern dance. For the student with little or no dance experience. May be repeated. **CSU/UC**

Dance 106B
Introduction to Modern Dance
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
An introduction to modern dance emphasizing movement technique, dance vocabulary and creative individual expression. Includes an introduction to choreographic principles and cultural context of modern dance. Dance 106B is a refinement of skills learned in Dance 106A. Two semesters of Dance 106AB equals Dance 206A. May be repeated. **CSU/UC**

Dance 108A
Introduction to Ballet
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Introduction to basic ballet emphasizing movement technique, dance vocabulary, and creative individual expression. Student learns basic ballet barre exercises, center work, and short dance works. Includes choreographic principles and cultural context of ballet. Prepares the student for Dance 108B. May be repeated. **CSU/UC**

Dance 108B
Introduction to Ballet
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Continuation of instruction in basic ballet technique, dance vocabulary, and creative individual expression. Student learns basic ballet barre exercises, center work, and short dance works. Includes choreographic principles and cultural context of ballet. Two semesters of Dance 108AB equals Dance 201A. May be repeated. **CSU/UC**

Dance 110A
Introduction to Tap Dance
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Introduction to basic tap dance technique. Focuses on the mastery of basic tap steps and simple dance combinations. Recommended for theatre and dance majors. Dance 115A prepares the student for Dance 115B. May be repeated. **CSU/UC**

Dance 115B
Introduction to Tap Dance
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Continued study in tap dance and basic skills necessary for execution of traditional tap dance steps and sequences. Emphasizes mastery of basic steps leading to combination work in complete dances. Recommended for theatre and dance majors. Dance 115A recommended. May be repeated. **CSU/UC**

Dance 119A
Introduction to Jazz Dance
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Introduction to jazz dance technique emphasizing elementary movement technique, vocabulary and creative expression. Includes an introduction to composition and cultural context of jazz. For students with little or no dance experience. May be repeated. **CSU/UC**

Dance 119B
Introduction to Jazz Dance
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
A refinement of basic jazz dance, emphasizing movement technique, vocabulary and creative expression. Includes composition, the cultural context of jazz and contemporary jazz dance forms. Movement repertoire differs from 119A. May be repeated. **CSU/UC**

EARTH SCIENCE (ERTH)

Earth Science 110
Introduction to Earth Science
Unit(s): 3
Class Hours: 48 Lecture total.
A study of the processes that shape and form the Earth and define its place in the solar system. Introduction to the sciences of geology, oceanography, meteorology, and astronomy. Not open to students who are enrolled, or have credit in Geology 101 or Geography 101. **CSU/UC**
Earth Science 115
Earth Science for Educators
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
The study of the dynamic forces shaping the earth, including its oceans and atmosphere. This class is open to all majors but is oriented towards enhancing the earth science knowledge of future teachers. Also includes an introduction to the solar system. Not open to students who are enrolled or have credit in Earth Science 110, Geology 101 or Geography 101. CSU/UC

ECONOMICS (ECON)
Economics 120
Principles/Macro
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Mathematics 080 or 081.
Introduction to macroeconomics, including basic economic concepts, analysis of markets, national income accounting, employment, short run business cycle fluctuations, long run growth trends, monetary and fiscal policies, and international economic issues. Intended for economics, business, and certain engineering/computer science majors. CSU/UC

Economics 121
Principles/Micro
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Mathematics 080 or 081.
Introduction to microeconomics, including basic economic concepts, analysis of markets, efficiency, consumer and firm behavior, industry structures, market failure, and resource markets. For economics, business, and certain engineering and computer science majors. Economics 120 is recommended. CSU/UC

EDUCATION (EDUC)
Education 101
Introduction to Education
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to the field of education including governance and funding; societal influences and student diversity; school curriculum and instruction, and the rewards and challenges for those in the teaching profession. Completion of English 101 is recommended. CSU/UC

Education 113
Tutoring Reading in Elementary Schools Teaching
Unit(s): 1
Class Hours: 16 Lecture, 16 hours arranged field experience.
An examination of effective tutoring strategies with a focus on the reading skills of elementary age children. Students are placed in local K-8 classrooms to gain experience with school-age children.

Education 200
Introduction to Elementary Classroom Teaching
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to educational theory and practice, assessing issues and standards for teaching in California’s culturally and linguistically diverse school settings; explores instructional methods for teaching and assessing reading. Students participate in 45 hours of structured observation and internship in a local elementary classroom. Completion of English 101 or 101H and Education 101 is recommended. CSU/UC

Education 204
Personal Proficiency in Educational Technologies for Secondary Teachers
Unit(s): 3
Class Hours: 48 Lecture total.
Development of personal proficiency in educational technologies to facilitate the teaching process. Training in computer hardware and software terminology; spreadsheets, word processing, publication, and presentation applications; Internet search and retrieval; information literacy; electronic communication and awareness of legal and ethical issues. CSU

Education 209
Roles and Responsibilities of the Special Education Paraprofessional
Unit(s): 3
Class Hours: 48 Lecture total.
This course is designed to train persons who work as classroom paraprofessional/teaching assistants in the public schools. The course provides an overview of paraprofessional roles and responsibilities including legal, instructional, evaluation and behavioral issues. Supports current legislation for paraprofessionals. CSU

Education 210
The Teaching Experience: Secondary Education
Unit(s): 3
Class Hours: 48 Lecture, 40 Laboratory total.
Introduction to the history, philosophy, and sociology of secondary education. This course will cover the California Teaching Performance Expectation and Assessment; needs of special populations, English learners, and struggling readers; content standards; and major curriculum reform documents. Includes a 40 hour practicum. CSU/UC

Education 211
Classroom Practices for Diverse Learners
Unit(s): 3
Class Hours: 48 Lecture total.
Prepares individuals to assist teachers in various settings to support diverse learners (individuals who have disabilities, are second language learners, are gifted, etc.). Topics will include lesson planning, adapting academics: reading, mathematics, science, art, job coaching, behavioral support, etc. CSU

ELECTRICIAN (ELCT)
Electrician 041
General Electrician 1
Unit(s): 3
Class Hours: 76 Lecture, 16 Laboratory total.
First semester of a five year program. Tools and fasteners, knot tying, math and materials, building materials and safety, and residential blueprints.

Electrician 042
General Electrician 2
Unit(s): 3
Class Hours: 62 Lecture, 30 Laboratory total.
Second semester of a five year program. DC theory, the National Electrical Code, safe work practices, series circuits, parallel circuits, combination circuits, principles of magnetism and electromagnetism.

Electrician 043
General Electrician 3
Unit(s): 3
Class Hours: 76 Lecture, 16 Laboratory total.
Third semester of a five year program. Codelogy, test instruments and sine waves, three-phase systems, residential and commercial blueprints, mechanical bending.

Electrician 044
General Electrician 4
Unit(s): 3
Class Hours: 54 Lecture, 38 Laboratory total.
Fourth semester of a five year program. Electrical theory, transformers, and National Electrical Code application.
Electrician 045  
**General Electrician 5**  
Unit(s): 3  
Class Hours: 84 Lecture, 8 Laboratory total.  
Fifth semester of a five year program.  
The National Electrical Code, grounding, industrial blueprints, and earth testing.

Electrician 046  
**General Electrician 6**  
Unit(s): 3  
Class Hours: 62 Lecture, 30 Laboratory total.  
Sixth semester of a five year program.  
Advanced motor control and code as applied to motor protection.

Electrician 047  
**General Electrician 7**  
Unit(s): 3  
Class Hours: 12 Lecture, 80 Laboratory total.  
Seventh semester of a five year program.  
Electronics and programmable logic controllers.

Electrician 048  
**General Electrician 8**  
Unit(s): 3  
Class Hours: 60 Lecture, 32 Laboratory total.  
Eighth semester of a five year program.  
Low voltage systems and lightning protection, fire alarm systems, and instrumentation.

Electrician 049  
**General Electrician 9**  
Unit(s): 3  
Class Hours: 92 Lecture total.  
Ninth semester of a five year program.  
Jobsite management. Prepares for competency exams.

Electrician 050  
**General Electrician 10**  
Unit(s): 3  
Class Hours: 92 Lecture total.  
Final semester of a five year program.  
A cover to cover study of the National Electrical Codebook to prepare for the California State Electrical Examination.

Electrician 051  
**Quality Safety Program and First Aid (Formerly Qualify Safety Program)**  
Unit(s): 1.5  
Class Hours: 30 Lecture total.  
OSHA workplace requirements; the identification and use of safe work practices, coping with accidents and emergency situations, and one person CPR for inside wireman apprentices.  
American Red Cross certificate available upon successful completion.  
Grade: Pass/No Pass Only.

Electrician 080  
**Electrical Safety and First Aid**  
Unit(s): 1  
Class Hours: 26 Lecture total.  
Meets the needs of electricians already working in the trade. Covers OSHA QSP program and Red Cross first aid and CPR training. May be repeated. Grade: Pass/No Pass Only.

Electrician 081  
**Codeology**  
Unit(s): 1  
Class Hours: 32 Lecture total.  
Meets the needs of electricians already working in the trade. Offers a complete study of the 2002 National Electrical Code, definitions and interpretations, using the NEC for calculations, mandatory and fine print rules. May be repeated. Grade: Pass/No Pass Only.

Electrician 082  
**NEC Study Level 1**  
Unit(s): 1  
Class Hours: 32 Lecture total.  
Meets the needs of electricians already working in the trade. Offers a complete study of Article 90 through Article 450. May be repeated. Grade: Pass/No Pass Only.

Electrician 083  
**Code Calculations**  
Unit(s): 1  
Class Hours: 32 Lecture total.  
Meets the needs of electricians already working in the trade. Takes the student through all the calculations an electrician may use when referencing the National Electrical Code. May be repeated. Grade: Pass/No Pass Only.

Electrician 084  
**Math Skills for the Electrician**  
Unit(s): 1  
Class Hours: 32 Lecture total.  
Meets the needs of electricians already working in the trade. Covers fractions, decimals, basic algebra. May be repeated. Grade: Pass/No Pass Only.

**ENGLISH (ENGL)**

**English N50**  
**Introduction to Written Communication**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Prerequisite: Qualifying profile from English placement process. Qualifying profile from English placement process.  
Introduction to written communication including autobiographical, journal and summary writing, and responding to essays. Basic grammar and punctuation. Designed for native speakers. Not applicable to associate degree. Students may be referred to the Writing Center.

**English N60**  
**Basics of Effective Writing**  
Unit(s): 3  
Class Hours: 64 Lecture, 16 Laboratory total.  
Prerequisite: English N50 or qualifying profile from English placement process.  
Sentence structure and paragraph writing including reading-based modeling and integrated study skills. Not applicable to associate degree. 16 additional hours in Writing Center required (one hour per week for 16-week semester sections).

**English N90**  
**English Writing Center I**  
Unit(s): 0.2  
Class Hours: 5 Lecture total.  
Extended composition strategies designed for English students enrolled in English N50, N60, or N61. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit.

**English N91**  
**English Writing Center II**  
Unit(s): 0.2  
Class Hours: 5 Lecture total.  
Extended composition strategies designed for English students enrolled in English 101, 102, or 103. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit.

**English N92**  
**Extended Composition Strategies**  
Unit(s): 0.2  
Class Hours: 5 Lecture total.  
A course offering extended composition strategies designed for students enrolled in and writing essays for classes other than English. Students will use the Writing Center to get assistance with planning, drafting, documenting, and revising the essays they are assigned in such courses as history, biology, sociology, political science, philosophy, and anthropology. May be repeated. Grade: Pass/No Pass Only.

**English 061**  
**Introduction to Composition**  
Unit(s): 3  
Class Hours: 64 Lecture, 16 Laboratory total.  
Prerequisite: English N60 or qualifying profile from English placement process.  
Expository paragraph writing emphasizing various methods including argumentation. Practice in refining sentence skills and grammar. 16 additional hours in Writing Center required.
English 101
Freshman Composition
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: English 061 or ACE 116 or qualifying profile from English placement process.

Critical thinking and Writing of 3.0 or above and English 101 or 101H.
Class Hours: 64 Lecture total.

Honors literature and Composition
english 102H
Prerequisite: English 101 or English 101H.
Class Hours: 64 Lecture total.
Unit(s): 4

Honors Freshman Composition
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above and English 101 or 101H.
An enriched exposure to expository and argumentative essays and the research paper, requiring in-depth analysis of issues and substantive treatment of student selected topics. CSU/UC

English 101H
Honors Freshman Composition
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above and English 101 or 101H.
Enriched and intensive exploration of historical and contemporary issues. Application of critical thinking, writing and reading skills to established argumentative methods and models through student initiated discussion and problem-solving in a seminar setting. CSU/UC

English 102
Literature and Composition
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: English 101 or English 101H.
A second semester course in composition and literature that continues to focus on expository and analytical writing with extensive readings selected from the four major genres. CSU/UC

English 102H
Honors Literature and Composition
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above and English 101 or 101H.
An enriched approach designed for honors students. A second semester course in composition and literature that continues to focus on expository and analytical writing with extensive readings selected from the four major genres. CSU/UC

English 103
Critical Thinking and Writing
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: English 101 or 101H.
This course focuses on developing critical thinking, reading, and writing skills by studying established argumentative methods and models and applying them to contemporary issues. Emphasis will be on logical reasoning and analytical and argumentative skills necessary for critical writing. CSU/UC

English 103H
Honors Critical Thinking and Writing
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above and English 101 or 101H.
Enriched and intensive exploration of historical and contemporary issues. Application of critical thinking, writing and reading skills to established argumentative methods and models through student initiated discussion and problem-solving in a seminar setting. CSU/UC

English 211
Creative Writing I/Fiction
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Writing techniques focusing on fiction. Workshop format, emphasis on writing and critiquing. Repeated courses will focus on different genres: short story, novel, and drama. May be repeated. CSU/UC

English 212
Creative Writing II/Fiction
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 211.
Writing techniques focusing on fiction. Workshop format, emphasis on writing and critiquing. Repeated courses will focus on different genres: short story, novel, and drama. May be repeated. CSU/UC

English 214
Creative Writing I/Poetry
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
A poetry-writing course focusing on poetic techniques, forms and content. Extensive written practice and analysis of the poem and its variety as seen in student and professional work. Covers techniques for submitting works for publication. May be repeated. CSU/UC

English 215
Creative Writing II/Poetry
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 214.
An advanced poetry-writing course focusing on poetic techniques, forms and content. Extensive written practice and analysis of the poem and its variety as seen in student and professional work. Special emphasis is on the timeless themes of poetry. Covers techniques for submitting works for publication. May be repeated. CSU/UC

English 220
Survey of the Bible As Literature
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
A study of the literary history, influence, and craftsmanship of the Bible and an exploration of related stories, poems, plays, essays and other diverse materials. CSU/UC

English 231
Survey of English Literature
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Introductory study of representative selections of British literature from the Anglo-Saxon period to the neo-classical period. Emphasis on authors best exemplifying their period, such as Chaucer, Shakespeare, Spenser, Jonson, Milton, Donne, Dryden, Johnson, Behn, Pope and others. CSU/UC

English 232
Survey of English Literature
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Introductory study of representative selections from the English Romantic Movement to the present. Emphasis on those authors best exemplifying their period, such as Austen, Wordsworth, Coleridge, Byron, the Shelleys, Keats, Tennyson, Newman, Carlyle, the Browning, Dickens, the war poets, Houseman, Yeats, Wilde and Woolf. CSU/UC

English 233A
Shakespeare's Comedies and Romances
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Study of selected Shakespearean comedies and romances. Emphasizes dramatic elements, depiction of human nature, and timeless/timeless conflicts. Augmented by films and, if available, appropriate field trips. Different selections in English 233ABCD. CSU/UC

English 233B
Shakespeare's Tragedies and History Plays
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Study of selected Shakespearean history plays and tragedies. Emphasizes dramatic elements, depiction of human nature, and timeless/timeless conflicts. Augmented by films and, if available, appropriate field trips. Different selections in English 233ABCD. CSU/UC
English 241
Survey of American Literature 1600-1865
(Formerly Survey of American Literature
1600-1860)
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Survey of America's greatest works of literature from 1600-1865. Emphasizes the relationship between various works and general movements in American culture and literary history. CSU/UC

English 242
Survey of American Literature, 1865-Present
(Formerly Survey of American Literature
1860-Present)
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Survey of America's greatest works of literature and their contributions to the American culture from 1865 to present. Emphasizes the relationship between literary and intellectual history. CSU/UC

English 246
Survey of Chicano Literature
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: English 101 or 101H.
Examines American literature by and about Chicanos. Emphasizes the relationships between various works and the Chicanos place in American society/culture. CSU/UC

Santiago Canyon College
ENGLISH PROGRAM AND SEQUENCE OF COURSES

Non-Transfer Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>English N50</td>
<td>Intro. to Written Communication</td>
</tr>
<tr>
<td>English N60</td>
<td>Basics of Effective Writing</td>
</tr>
<tr>
<td>English O61</td>
<td>Intro. to Composition</td>
</tr>
</tbody>
</table>

College Transfer Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>English 101 or 101H</td>
<td>Freshman Composition</td>
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Note: Completion of English 101/101H with a grade of C or higher qualifies you to enroll in any higher English course. Consider your options.

Plan A (AA) | English AA | Plan B (CSU) | Plan C (IGETC) |
|------------|------------|-------------|---------------|
| C. Humanities
| D. Cultural Breadth
  D1: Literature
  English 245, 246, 278 |
| E. Language & Rationality
  E1: English Composition
  English 061, 101/101H |
  E2: Communications & Analytical Thinking
  English 103/103H |
| 12 units of 200 or above English language or literature classes including those not taken above. |

| A. Communication in the English Language & Critical Thinking |
| A2: Written Communication English 101/101H |
| A3: Critical Thinking English 103/103H |

| C. Arts, Literature, Philosophy, Foreign Language |
| C1: Arts English 233A, 233B |
| C2: Humanities

| D. Social, Political & Economic Institutions & Behavior; Historical Background |
| D3: Ethnic Studies
  English 278 |
| D4: Gender Studies
  English 278 |

Area 1: English Communication
Group A: English Composition English 101/101H
Group B: Critical Thinking English Composition English 103/103H

Area 2: Arts & Humanities
Group B: Humanities
Environmental Studies 259
Environmental Biology
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Introduction to Environmental Studies.
Includes study of ecosystems, population dynamics, classification, diversity of plant and animal species, effects of pollutants at both the cellular and organismal levels, and principles of ecology. (Same as Biology 259.) CSU/UC

Exercise Science 106
Cardiopulmonary Resuscitation
Unit(s): 1.5
Class Hours: 24 Lecture total.
Instruction in artificial respiration and manual artificial circulation that is recommended for use in cardiac arrest cases. Successful completion may lead to American Heart Association Certificate and/or American Red Cross Certificate. May be repeated. CSU/UC

Exercise Science 109
Sport in US Society
Unit(s): 3
Class Hours: 48 Lecture total.
This course is a comprehensive look at sport in US Society and how various ethnic and minority groups have influenced sport at the local, state and national levels. The influences of other cultures outside of the US will be reviewed and analyzed. A review of sport history will be conducted with communication and media influences also examined. CSU

Exercise Science 110
Women’s Health Issues
Unit(s): 3
Class Hours: 48 Lecture total.
This course is designed to address health concepts as they apply to women. The topics range from personal fitness and nutrition habits to substance abuse; female reproductive structure and function; intimate and abusive relationships; disease transmission, prevention and aging. CSU/UC

Exercise Science 111
Sports Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
An academic and practical examination of the psychological aspects of sport. Specific methods will be taught to enhance athletic performance through mental preparation and practice. CSU

Exercise Science 112
Exploring Concepts of Fitness and Wellness
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to health-related components of fitness (cardiovascular, body composition, strength, muscle endurance, flexibility) and the peripheral influence upon them: relaxation, diet, stress, fatigue and exercise. Includes exercise prescription and evaluation procedures of the components of fitness. CSU
Exercise Science 115
Personal Fitness Evaluation
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Personal evaluation of your fitness level. Each student completes appointments that evaluate flexibility, strength, blood pressure, body composition, pulmonary function, resting electrocardiogram, and a graded exercise test. Students are also required to record 24 hours of instructor supervised exercise. Designed for healthy individuals with no heart problems. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU

Exercise Science 120
Aerobics
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Aerobic exercises, strength routines and stretching exercises set to music designed to improve cardiovascular endurance and enhance muscular strength and flexibility. A combination of Exercise Science 120, 121 and 122 may be taken a maximum of four times. May be repeated. CSU/UC

Exercise Science 121
Step Aerobics
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Aerobic exercises arranged to music, gradually increasing in tempo with a greater emphasis on a non-stop 25-30 minute program with 10-15 minutes of abdominal work and stretching. Aerobic activity is designed to improve muscle tone and cardiovascular endurance. May be repeated. CSU/UC

Exercise Science 122
Aerobic Cross Training
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
A series of aerobic exercises designed to introduce the student to the concept of cross training activities in which students will participate and receive instruction in exercises including power walking, weight training, aerobic dance, step aerobics and flexibility exercises. A combination of Exercise Science 120, 121 and 122 may be taken a maximum of four times. May be repeated. CSU/UC

Exercise Science 123
Stretch, Flex, and Tone
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
A combination of stretching and toning exercises to increase strength, flexibility, and overall body fitness. May be repeated. CSU/UC

Exercise Science 124
Walking/Jogging for Fitness
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
This course will emphasize jogging/walking for optimum health and fitness. This class is designed to improve cardiovascular health and total body toning, increasing heart efficiency and vital lung capacity. May be repeated. CSU/UC

Exercise Science 125
Cardio Boxing
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
A series of boxing, kickboxing, stretching exercises arranged to music, gradually increasing in tempo with a greater emphasis on a non-stop 25-30 minute program with 10-15 minutes of abdominal work and stretching. Aerobic activity is designed to improve muscle tone and cardiovascular endurance. May be repeated. CSU/UC

Exercise Science 129
Co-Ed Circuit Training
Unit(s): 0.5
Class Hours: 24 Laboratory total.
An instructor supervised individualized program developed to promote life-time fitness. Employs resistive designed exercise devices for achieving muscle tone while increasing strength and cardiovascular endurance. A combination of Exercise Science 129, 130, 132 and 134 may be taken a maximum of four times. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU

Exercise Science 130
Circuit Training
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
An instructor supervised, individualized program developed to promote life-time fitness. Employs resistive designed exercise devices for achieving muscle tone while increasing strength and cardiovascular endurance. A combination of Exercise Science 183, 185 and 193 may be taken a maximum of four times. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU/UC

Exercise Science 132
Circuit Training for Summer Fitness
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
An instructor supervised individualized program developed for achieving muscle tone while increasing strength and endurance. Emphasis is on warm weather exercise and its effect on the individual. Consists of resistance exercise. A combination of Exercise Science 183, 185 and 193 may be taken a maximum of four times. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU/UC

Exercise Science 134
Circuit Training for Seniors
Unit(s): 0.5
Class Hours: 24 Laboratory total.
An instructor supervised, individualized Circuit Training program designed specifically for senior citizens. Life Fitness resistance exercise machines will be used to achieve muscle tone while increasing strength and endurance. Physician’s approval recommended for participation. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU/UC

Exercise Science 135
Cardiovascular Conditioning
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Designed for those people who desire a cardiovascular workout using a combination of equipment such as stationary bicycles, steppers, treadmills and rowing machines. Instructor supervised and suited for men and women of all age groups interested in maximal cardiovascular fitness. May be repeated. Grade: Pass/No Pass Only. CSU/UC

Exercise Science 136
Cardiorespiratory Conditioning for Seniors
Unit(s): 0.5
Class Hours: 24 Laboratory total.
An instructor supervised cardio-respiratory conditioning program based on principles of aerobic training designed specifically for seniors. Uses a combination of treadmills, Lifecycle, rowing machines, steppers, and Health Riders to attain maximal cardio-respiratory fitness. Physician’s approval recommended for participation. May be repeated. Grade: Pass/No Pass Only. CSU/UC
Exercise Science 139
Strength Training
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Supervised instruction in free weight techniques, using barbells and dumbbells. For those with experience in weight training. Open laboratory. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU/UC

Exercise Science 140
Tai Chi
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
This course is designed to give instruction in the ancient Chinese art of Tai Chi. Students will learn movement patterns designed to generate, circulate and harmonize internal energy flows for mental and physical health enhancement. May be repeated. CSU/UC

Exercise Science 141
Self Defense
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Instruction in personal safety and self-protection including the effective use of hands, knees, elbows, feet, and the mind. Proficiency with everyday objects as weapons and defense against common street weapons is also stressed. May be repeated. CSU/UC

Exercise Science 142
Tennis
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Instruction and practice in the fundamental skills basic to the successful performance of tennis. These skills include grip and body mechanics involved with forehand and backhand strokes. Includes all strokes: ground, volley, lob, serve, return of serve, overhead. Rules, scoring and court strategy will be covered in singles and doubles tournament play. May be repeated. CSU/UC

Exercise Science 143
Yoga
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
An exercise program involving the practice of postures that strengthen the body, improve flexibility, and create a feeling of well-being. Yoga is a total body strengthening and stretching activity, built on a foundation of ethics and personal discipline, and is suited to accommodate students of all ages and fitness levels. May be repeated. CSU/UC

Exercise Science 150
Co-Ed Track and Field
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Instruction for individual practice in the various events of track and field. May be repeated. CSU/UC

Exercise Science 160
Golf Fundamentals
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Fundamentals of golf: stance, swing, grip and body position. Emphasis on the short game utilizing short irons and putters. A combination of Exercise Science 162, 163 and 164 may be taken a maximum of four times. May be repeated. CSU/UC

Exercise Science 161
Golf On-Course Strategies
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Application of advanced golf techniques as they relate to regulation course play. The class will focus on playing lessons on a regulation course. A combination of Exercise Science 162, 163 and 164 may be taken a maximum of four times. May be repeated. CSU/UC

Exercise Science 164
Golf Course Management
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Advanced course management skills development. Students will play a nine hole course and will learn rules and etiquette in golf. Students will establish a handicap. A combination of Exercise Science 160, 161, and 164 may be taken a maximum of four times. May be repeated. CSU

Exercise Science 170
Co-Ed Soccer
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Practice in the game of soccer, including skills, groups and team tactics. Course focuses on improving performance in all aspects of the game: defense, midfield, attack and special situations. May be repeated. CSU/UC

Exercise Science 173
Basketball
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Fundamentals, rules, strategies, philosophies, theories and competition in individual/team basketball. May be repeated. CSU/UC

Exercise Science 175
Co-Ed Bowling
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Fundamentals, rules, strategies, philosophies, theories and competition in individual/team bowling. May be repeated. CSU/UC

Exercise Science 220
Conditioning for Athletes-Men
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
An instructor supervised exercise program designed for athletes who participate in men's sports. Emphasis will be on the development of speed, endurance, flexibility, and strength. A combination of Exercise Science 220, 221, and 222 may be taken a maximum of four times. A combination of Exercise Science 220, 221 and 222 may be taken a maximum of four times. May be repeated. CSU/UC

Exercise Science 221
Conditioning for Athletes-Co-Ed
Unit(s): 0.5 or 1
Class Hours: 32 or 48 Laboratory total.
An instructor supervised exercise program designed for athletes who participate in sports. Emphasis will be on the development of speed, endurance, flexibility, and strength. A combination of Exercise Science 220, 221 and 222 may be taken a maximum of four times. May be repeated. CSU/UC

Exercise Science 222
Conditioning for Athletes-Women
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
An instructor supervised exercise program designed for athletes who participate in women's sports. Emphasis will be on the development of speed, endurance, flexibility, and strength. A combination of Exercise Science 220, 221 and 222 may be taken a maximum of four times. May be repeated. CSU/UC

Exercise Science 224
Speed and Agility-Men
Unit(s): 0.5 or 1
Class Hours: 32 or 48 Laboratory total.
This class is designed for male athletes to increase running speed. This class includes instruction on linear speed, non-linear speed, and jumping ability using state of the art plyometric training and speed specific training tools. A combination of Exercise Science 224 and 226 may be taken a maximum of four times. May be repeated. CSU
Exercise Science 226
Speed and Agility—Women
Unit(s): 0.5 or 1
Class Hours: 32 or 48 Laboratory total.
This class is designed for female athletes to increase running speed. This class includes instruction on linear speed, non-linear speed, and jumping ability using state of the art plyometric training and speed specific training tools. A combination of Exercise Science 224 and 226 may be taken a maximum of four times. May be repeated. CSU

Exercise Science 240
Cross Country Team-Men
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program for male students with exceptional cross country talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 241
Cross Country Team-Women
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program for women students with exceptional cross country talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 250
Track and Field Team-Men
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program for male students with exceptional track and field talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 251
Track and Field Team-Women
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program for female students with exceptional track and field talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 259
Track and Field Team-Off Season
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Students learn the principles involved with team ethics and values by working cooperatively with coaches and teammates. This entails learning the values of discipline, work ethic, commitment, and loyalty. Participants will train to improve technique and competitive performance in track and field. May be repeated. CSU/UC

Exercise Science 260
Golf Team-Men
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program for male students with exceptional golf talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 261
Golf Team-Women
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program for female students with exceptional golf talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 269
Golf Team-Off Season
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Application of advanced golf techniques as they relate to practice techniques and competitive play in the sport of golf. The class will focus on playing lessons on regulation golf courses. May be repeated. CSU/UC

Exercise Science 270
Soccer Team-Men
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program in soccer for male athletes with exceptional athletic talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 271
Soccer Team-Women
Unit(s): 2
Class Hours: 160 Laboratory total.
A high-level, competitive program in soccer for female athletes with exceptional athletic talent. Students must meet COA eligibility requirements and pass a health screening prior to participation. May be repeated. CSU/UC

Exercise Science 275
Theory of Soccer
Unit(s): 2
Class Hours: 32 Lecture total.
A general overview of the history of the game, its rules, tactics, techniques, conditioning and overall preparation to understand, play, and enjoy soccer. May be repeated. CSU/UC

Exercise Science 278
Soccer Team Off Season-Men
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
A high-level, competitive practice and skills program in soccer for male students with exceptional athletic talent. May be repeated. CSU/UC

Exercise Science 279
Soccer Team Off Season-Women
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
A high-level, competitive practice and skills program in soccer for female students with exceptional athletic talent. May be repeated. CSU/UC

Exercise Science 281
Softball Team-Women
Unit(s): 2
Class Hours: 160 Laboratory total.
A general overview of the history of the sport of softball. May be repeated. CSU/UC

Exercise Science 285
Theory of Softball
Unit(s): 2
Class Hours: 32 Lecture total.
A general overview of rules, regulations, strategies, mental preparation, skill evaluation and the history of the sport of softball. May be repeated. CSU/UC

Exercise Science 289
Softball Team Off Season-Women
Unit(s): 0.5 or 1
Class Hours: 48 Laboratory total.
Basic skills and fundamentals of catching, throwing, pitching, hitting and base running will be covered. Offensive and defensive techniques and strategies will be practiced. May be repeated. CSU/UC
FRENCH (FREN)

French 101
Elementary French 1
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total. A college level French course focusing on fundamentals of pronunciation and grammar, basic vocabulary (including common idioms), simple conversation and composition. Supplementary cultural readings. French 101 is equivalent to two years of high school French. Sixteen additional hours in the Modern Language Lab required. (One hour per week for 16-week semester sections and two hours per week for 8-week summer sessions). CSU/UC

French 102
Elementary French II
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total. Prerequisite: French 101 or two years of high school French with a passing grade. A college level French course focusing on further training in pronunciation and grammar, more extensive vocabulary development, conversation and composition. Supplementary cultural readings. Appropriate laboratory assignments. French 102 is equivalent to the third year of high school French. Sixteen additional hours in the Modern Language Lab required. (One hour per week for 16-week semester sections and two hours per week for 8-week summer sessions). CSU/UC

French 194
Conversation and Composition I
Unit(s): 3
Class Hours: 48 Lecture total. Prerequisite: French 101 or two years of high school French. Review and implementation of language structure through discussion, conversation, reading and composition. Discussions of French culture and current events. CSU

French 196
Conversation and Composition II
Unit(s): 3
Class Hours: 48 Lecture total. Prerequisite: French 102. Further development of conversation and composition skills through cultural and current events and readings and discussions. Vocabulary development and idioms usage will be practiced in a cultural context through discussions and class presentations. CSU/UC

French 201
Intermediate French I
Unit(s): 5
Class Hours: 80 Lecture total. Prerequisite: French 102 or three years of high school French. A college level French class focusing on expansive review of usage and grammar; discussion in French of interpretive reading material; conversation and composition. CSU/UC

French 202
Intermediate French II
Unit(s): 5
Class Hours: 80 Lecture total. Prerequisite: French 201 or four years of high school French. A college level French class focusing on a specialized review of grammar and composition; discussions in French of history and culture based on literary materials. CSU/UC

GEMOLOGY (GEM)

Gemology 011
Introductory Colored Stones
Unit(s): 4
Class Hours: 96 Lecture total. Introduction to identification, appreciation, and evaluation of colored gemstones. Overview of the world colored-stone industry. Experience using gemological testing equipment and procedures to identify the most commonly seen varieties of natural and synthetic-fashioned gemstones.

Gemology 012
Advanced Colored Stones
Unit(s): 4
Class Hours: 96 Lecture total. Advanced identification, appreciation and evaluation of colored gemstones. Overview of the world colored-stone industry. Further experience using gemological testing equipment to identify the most commonly seen varieties of both natural and synthetic-fashioned gemstones.

Gemology 015
Colored Stones and Diamond Lab
Unit(s): 1
Class Hours: 48 Laboratory total. Laboratory experience in testing and identification of colored gemstones and/or full grading of diamonds for clarity, color, cut and carat weight. May be repeated. Grade: Pass/No Pass Only.

Gemology 020
Diamonds
Unit(s): 4
Class Hours: 96 Lecture total. Full range of diamond grading techniques, history, diamond substitutes, physical and optical properties, all types of synthetic, techniques of valuing/pricing, famous diamonds, detecting enhancements.

Gemology 029
The Jewelry Profession
Unit(s): 3
Class Hours: 48 Lecture total. Focuses on all related areas encountered by the professional jeweler other than gemological theory and laboratory studies. Includes starting a jewelry business, custom design, appraisals, manufacturing and repair, and investment trends.

Gemology 030
Antique and Period Jewelry
Unit(s): 3
Class Hours: 48 Lecture total. The history, techniques, styles and periods of antique and period jewelry. Identification of period pieces from Georgian to Retro, including authentic vs. reproductions. Includes types of metals and materials, stone cutting, setting techniques, and types of gemstones used.

Gemology 040
Appraisal Theory and Practice
Unit(s): 3
Class Hours: 48 Lecture total. Instruction in appraisal format, handling customers, hands-on valuing of diamonds and colored stones, tax appraisals, analyzing metal content and workmanship, discussions about retail mark-ups, wholesale price guides, photographic options, credentials.

Gemology 050
Pearls
Unit(s): 3
Class Hours: 48 Lecture total. Introduction to the history, appreciation, and evaluation of natural and cultured pearls, including an overview of the world pearl industry. Pearl identification and grading techniques covering the physical and optical properties for judging the luster, surface, shape, color, and size of the various types.
GEOGRAPHY (GEOG)

Geography 100
World Regional Geography
Unit(s): 3
Class Hours: 48 Lecture total.
The study of major world political and natural regions. The location of the regions on earth, the physical and cultural elements that lend the regions their identities, and ways in which these elements relate to the regions’ inhabitants and economies. CSU/UC

Geography 100H
Honors World Regional Geography
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
Enriched and intensive study, including seminar approach with individual written and oral presentations of major world political and natural regions. The location of the regions on earth, the physical and cultural elements which provide the regions with their identities, and ways in which these elements relate to the regions’ inhabitants and economies. CSU/UC

Geography 101
Physical Geography
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to the physical elements of geography: maps, earth/sun relationships, meteorology and climatology, natural vegetation, soils, and geomorphology. CSU/UC

Geography 102
Cultural Geography
Unit(s): 3
Class Hours: 48 Lecture total.
An introductory survey of the geography of culture, and the influences of the physical environment on culture, along with the impact of human activity on the environment, and the role of culture within societies and social groups. The course includes global patterns of population, migration, religion, language, agriculture, politics, customs, resources, and urban and rural settlement. CSU/UC

GEOLOGY (GEOL)

Geology 101
Introduction to Geology
Unit(s): 3
Class Hours: 48 Lecture total.
Introductory course for students in any major. Study of the internal and external processes that shape the earth (earthquakes, volcanoes, groundwater, streams, landslides). Optional field trip offered. Concurrent enrollment in Geology 101L is recommended. CSU/UC

Geology 101L
Introduction to Geology Laboratory
Unit(s): 1
Class Hours: 48 Laboratory total.
Prerequisite: Geology 101 or concurrent enrollment.
Study of the common minerals and rocks. Map reading and interpretation of geology using topographic maps, geologic maps and aerial photos. CSU/UC

Geology 111
Dinosaurs and the Geology of the Mesozoic Era
Unit(s): 1
Class Hours: 16 Lecture total.
Study of the classification, evolution, and characteristics of the major groups of dinosaurs and other contemporary life with emphasis on the mass extinctions at the end of the Mesozoic era. Required, one-day field trip. CSU

Geology 112
Earthquakes
Unit(s): 1
Class Hours: 16 Lecture total.
Introduction to earthquakes, the processes that cause them, and the results of their occurrences. Required, one-day field trip. CSU

Geology 113
Volcanoes
Unit(s): 1
Class Hours: 16 Lecture total.
Introduction to volcanoes, the geologic processes that cause them, and the human consequences of their eruptions. Required, one-day field trip. CSU

Geology 142
Natural Disasters
Unit(s): 3
Class Hours: 48 Lecture total.
Introductory course for students in any major. The study of geological processes and how natural disasters such as earthquakes, volcanoes, floods, and landslides can occur. Examination of how people can either help to create, or prevent, potential disaster because of their interactions with the Earth. Optional field trip offered. CSU/UC

Geology 150
Introduction to Oceanography
Unit(s): 3
Class Hours: 48 Lecture total.
Introductory study of the ocean and its topography, sediments, circulation, shoreline processes, biological productivity and mineral resources. (Same as Earth Science 150.) CSU/UC

Geology 162
Geologic Field Studies of the Mojave Desert
Unit(s): 1
Class Hours: 16 Lecture total.
The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the Mojave Desert region. Mandatory orientation along with a two-day field trip. May be repeated. CSU

Geology 164
Geologic Field Studies of the Eastern Sierra Nevada
Unit(s): 2
Class Hours: 32 Lecture total.
The geologic history including mountain building, volcanic activity, glaciation, faulting, and mineral resources of the eastern Sierra Nevada from Red Rock Canyon to Mammoth Lakes. Mandatory orientation along with a five-day field trip. May be repeated. CSU

Geology 166
Geologic Field Studies of the Sierra Nevada
Unit(s): 2
Class Hours: 32 Lecture total.
A study of the geologic history, structure, and tectonics of the Sierra Nevada. Mandatory orientation along with a five-day field trip. May be repeated. CSU

Geology 173
Geologic Field Studies of Death Valley
Unit(s): 1
Class Hours: 16 Lecture total.
The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the Death Valley region. Mandatory orientation along with a two-day field study. May be repeated. CSU

Geology 174
Geologic Field Studies of Joshua Tree National Park
Unit(s): 1
Class Hours: 16 Lecture total.
The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the Joshua Tree region. Mandatory orientation along with a two-day field trip. May be repeated. CSU
Prerequisite: Geology 101, 101L; Chemistry

Class Hours: 32 Lecture, 96 Laboratory total. Unit(s): 4

Crystallography
Introduction to Mineralogy and geology 20

Class Hours: 48 Lecture, 48 Laboratory total. Unit(s): 4

Introduction to Historical Geology

Class Hours: 48 Lecture total. Introductory geology course investigating the former landscapes and inhabitants of the Earth as preserved in the rock record with an emphasis on North America. Two optional one-day field trips. CSU

Geology 260
Introduction to Mineralogy and Crystallography

Unit(s): 4

Class Hours: 32 Lecture, 96 Laboratory total. Prerequisite: Geology 101, 101L; Chemistry 219.

Crystallography and the origin, composition, properties, occurrence and identification of the common rock-forming and ore minerals. Required, one-day field trip. Prior completion of Mathematics 070 recommended. CSU/UC

HISTORY (HIST)

History 101
World Civilizations to the 16th Century

Unit(s): 3
Class Hours: 48 Lecture total.

Development of world civilizations and their interrelationships from the earliest beginnings to the sixteenth century. Basic ideas, institutions, personalities, and artistic achievements of these societies. CSU/UC

History 101H
Honors World Civilizations to the 16th Century

Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.

An enriched approach designed for honor students with emphasis on individual research as well as small group analysis of historical problems. Development of world civilizations and their interrelationships from the earliest beginnings to the sixteenth century. Basic ideas, institutions, personalities, and artistic achievements of these societies. CSU/UC

History 102
World Civilizations Since the 16th Century

Unit(s): 3
Class Hours: 48 Lecture total.

Broad historical study of world civilizations and their interrelationships from the 16th century to the present. Ideas, institutions, personalities, and artistic achievements which have contributed to present-day society. CSU/UC

History 102H
Honors World Civilizations Since the 16th Century

Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.

An enriched approach designed for honor students with emphasis on individual research as well as small group analysis of historical problems. Broad historical study of world civilizations and their interrelationships from the 16th century to the present. Ideas, institutions, personalities, and artistic achievements which have contributed to present-day society. CSU/UC

History 118
Social and Cultural History of the United States

Unit(s): 3
Class Hours: 48 Lecture total.
Examines social and cultural traditions during major historical periods. Focuses on American attitudes and response to economic and technological changes, aesthetics, music, art, language, architecture, folklore, high and popular culture. CSU/UC

History 120
The United States to 1865

Unit(s): 3
Class Hours: 48 Lecture total.
Examines major political, economic, intellectual, and social forces at home and abroad that shaped American life from the colonial period through the Civil War. CSU/UC

History 120H
Honors the United States to 1865

Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.

Seminar-style, content-enriched course for honors students that examines major political, economic, intellectual, and social forces at home and abroad that shaped American life from the colonial period through the Civil War. CSU/UC

History 121
The United States Since 1865

Unit(s): 3
Class Hours: 48 Lecture total.
A critical analysis of American history. Includes industrial and technological development, the changing nature of society, cultural developments, domestic politics, and America’s expanded world role. CSU/UC

History 121H
Honors the United States Since 1865

Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.

Seminar-style, content-enriched course for honors students exploring a critical analysis of American history including industrial and technological development, the changing nature of society, cultural patterns, domestic politics, artistic attainments, and America’s expanded world role. CSU/UC
History 122
American History-Dynamics of Change
Unit(s): 3
Class Hours: 48 Lecture total.
Survey of the main cultural, economic, social, and political changes in American history. Fulfills the American institutions requirement for graduation. No credit to students with credit in History 120, 121. CSU/UC

History 124
Mexican-American History in the United States
Unit(s): 3
Class Hours: 48 Lecture total.
Survey of Mexican-American history in the U.S. from the Pre-Columbian period to the present. Emphasis on Mexican-American contributions to the political, social, economic, and cultural development of the U.S. Will also examine the relationship of Mexican-Americans to other cultural groups. CSU/UC

History 127
Women in U.S. History
Unit(s): 3
Class Hours: 48 Lecture total.
Women of European, African, Native, Hispanic, and Asian backgrounds examined in U.S. 1607-present. Emphasis on individuation, social status, family, reproduction, child care, slavery, jobs, and political activism. Legal impact and theories of patriarchal oppression raised. CSU/UC

History 133
History of California
Unit(s): 3
Class Hours: 48 Lecture total.
An examination of the major social, political, and economic developments that have shaped California history from the indigenous period to the present. Special attention given to regional issues, ethnic or cultural groups, constitutional matters, cultural change, and California's connection with the Pacific Basin. CSU/UC

History 152
Latin American History
Unit(s): 3
Class Hours: 48 Lecture total.
A survey of Latin American History from the Indian and European origins to the 21st century with a focus on the historical background of the countries studied. Emphasis placed upon the interplay of Iberian, African and Indian influences upon social and cultural evolution. Also stressed are the Latin American relations with the United States in the 19th and 20th centuries. CSU/UC

History 162
Asian Civilizations
Unit(s): 3
Class Hours: 48 Lecture total.
Historical survey of Asian Civilizations from the earliest time to the present. An analysis which contrasts and compares Asian cultures with an emphasis on geographic and demographic patterns and the dynamics of primitive, modern and transitional societies. Asian religions, rituals and thought, also included. Emphasis will be given to Islam, Hinduism, and Buddhism. CSU/UC

HUMAN DEVELOPMENT (HUD)

Human Development 107
Child Growth and Development (DS1)
Unit(s): 3
Class Hours: 48 Lecture total.
This course examines the major physical, psychosocial, and cognitive/linguistic developmental milestones for children, from conception through adolescence. Using developmental theories and research methodologies, course emphasis will be on typical and atypical development, maturational processes and environmental factors. Students will also observe children, evaluate individual differences and analyze characteristics of development at various stages. CSU/UC

Human Development 108A
Observation and Assessment for Early Learning and Development
Unit(s): 3
Class Hours: 48 Lecture, 15 Laboratory total.
Prerequisite: Human Development 107. 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. Students must show proof of negative TB test results. CSU

Human Development 110
Child, Family and Community (DS2)
Unit(s): 3
Class Hours: 48 Lecture total.
This class examines the developing child in a societal context focusing on the interrelationship of family, school and community and emphasizes historical and socio-cultural factors. Socialization processes and identity development that support and empower families by showing the importance of reciprocal relationships will be explored. CSU/UC

Human Development 111A
Principles and Practices of Teaching Young Children
Unit(s): 3
Class Hours: 48 Lecture, 6 Laboratory total.
Prerequisite: Human Development 108A. This course examines the underlying historical and theoretical principles, and the developmentally appropriate practices of early childhood programs and environments. Emphases will be on the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all children. The evolution of professional practices promoting advocacy, ethics and professional identity will be explored. Students must show proof of negative TB test results. CSU

Human Development 111B
Introduction to Curriculum for Young Children (DS3)
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Human Development 111A. This course presents an overview of knowledge and skills needed to provide developmentally appropriate curriculum for young children. Students will examine the teacher's role in supporting development, fostering the joy of learning, and creativity through the essential role of play. Content areas include language/literacy, social/emotional/sensory learning, art, music, math science, health/safety, and motor development. Students must show proof of negative TB test results. CSU

Human Development 112
Health, Safety and Nutrition for Children
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Human Development 108A and 111B. This course examines the regulations, policies, procedures and best practices for early childhood curriculum related to health, safety, food, and nutrition while supporting child development through everyday planning and school programming. The importance of collaboration between families and health and school professionals to ensure physical and mental health of all children, families and professionals will be explored. Students must show proof of negative TB test results.
Human Development 116A
Infant/Toddler Growth and Development (DS)
Unit(s): 3
Class Hours: 48 Lecture, 6 Laboratory total.
Prerequisite: Human Development 107.
Examination of the growth and developmental patterns of infants and toddlers and interactions with culturally diverse family structures. Meets licensing requirement. With Human Development 116B, this class fulfills infant/toddler specialization for Child Development Master Teacher Permit. Students must show proof of negative TB test results. CSU

Human Development 116B
Programming for Infants and Toddlers (DS)
Unit(s): 3
Class Hours: 48 Lecture, 3 Laboratory total.
Prerequisite: Human Development 107.
Focuses on the implementation of quality, developmentally appropriate, infant/toddler programs, including curriculum, environment, planning and interactions among staff, children and parents. Cultural sensitivity to the diversity of staff and families within such programs will be addressed. Meets licensing requirement. With Human Development 116A, this course fulfills Infant/Toddler Specialization for Child Development Master Teacher Permit. Students must show proof of negative TB test results. CSU

Human Development 120
Development of the School Age Child (DS5)
Unit(s): 3
Class Hours: 48 Lecture total.
An examination of the physical, cognitive, personality and social development of children between the ages of five and twelve years. Attention will be paid to the scientific study of middle childhood, developmental trends and issues of diversity.

Human Development 121
School Age Child Care Activities (DS5)
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Human Development 120.
Focus on school age creative activities including planning and implementing an appropriate before and after school curriculum. Attention will be paid to integrating academics, recreation and creative activities suitable for school age child care programs.

Human Development 205
Exceptionality and Special Needs in Human Development
Unit(s): 3
Class Hours: 48 Lecture total.
Study of diseases and disorders found in children resulting in exceptionality, including mental retardation; visual, speech, and hearing impairments; behavioral disorders, learning disabilities and physical and health impairments. (Same as Special Services 205.) CSU

Human Development 208
Working With Families of Children With Special Needs
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Human Development 205.
This course will provide teachers, intervention assistants, administrators and parents the tools necessary to support families of children with disabilities and other special needs in early childhood and school age programs. Techniques, strategies and resources will be provided to support children in a natural and/or inclusive educational setting and to empower the advocacy of parents. CSU

Human Development 221
Teaching in a Diverse Society
Unit(s): 3
Class Hours: 48 Lecture total.
Examination of the development of social identities in diverse societies, and implications of oppression and privilege as they apply to young children, families, programs, classrooms and teaching. Classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches, self-examination, and reflection on issues related to social identity, stereotypes and bias, social and educational access, media and schooling.

INTERDISCIPLINARY STUDIES (IDS)

Interdisciplinary Studies 155
Human Sexuality
Unit(s): 3
Class Hours: 48 Lecture total.
An interdisciplinary review of the biological development and psychological influences across the lifespan, including neuroscience research, and sociocultural considerations in the areas of gender, attraction, attachment, love, sexual orientations, anatomy, sexual arousal and response, conception, contraception, reproduction, health, including sexual coercion and sexually transmitted infections. CSU/UC

ITALIAN (ITAL)

Italian 101
Elementary Italian I
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total.
Prerequisite: Italian 101 or two years of high school Italian.
Mastery of pronunciation and basic grammatical structures. Further training in reading and writing and speaking to promote fluent and idiomatic communication. Italian 102 is equivalent to the third year of high school Italian. CSU/UC

Italian 102
Elementary Italian II
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total.
Prerequisite: Italian 101 or two years of high school Italian.
Reinforces conversational and composition skills. Implementation of language structure through conversation, reading and composition. Discussions of Italian culture. CSU/UC

Italian 194
Conversational Composition
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Italian 101 or two years of high school Italian.
Advanced conversational techniques. A review of language structure through conversation, reading and composition. Discussions of Italian culture. CSU/UC

Italian 195
Advanced Conversational Italian
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Italian 102.
Advanced conversational techniques. A review of language structure through discussion, conversation, reading, composition, and translation. Discussions of Italian culture. CSU/UC

Italian 201
Intermediate Italian I
Unit(s): 5
Class Hours: 80 Lecture total.
Prerequisite: Italian 102 or three years of high school Italian.
A college level Italian class focusing on expansive review of usage and grammar, discussions of interpretive readings, conversation, and composition. CSU/UC

Italian 202
Intermediate Italian II
Unit(s): 5
Class Hours: 80 Lecture total.
Prerequisite: Italian 201 or four years of high school Italian.
A specialized college level review of structure, usage and composition; discussions in Italian of history and culture based on literary materials. CSU/UC
LIBRARY AND INFORMATION STUDIES (LIBI)

Library and Information Studies 100
Library Research Fundamentals
Unit(s): 1
Class Hours: 16 Lecture total.
This course is designed to teach students basic college-level research skills for the effective use of traditional and electronic library resources. Instruction includes print and non-print information sources such as reference books, scholarly material, online subscription databases and the Internet. Students will visit a library to complete hands-on exercises. **CSU/UC**

Library and Information Studies 103
Advanced Internet Research
Unit(s): 1
Class Hours: 16 Lecture total.
This course focuses on library research strategies for effectively locating and evaluating information on the Internet. Core topics are designing and performing successful search strategies, evaluating online information using critical thinking skills, identifying the ethical and legal aspects of using online sources, and citing sources using a standard documentation style. **CSU**

MANAGEMENT (MGMT)

Management 120
Principles of Management
Unit(s): 3
Class Hours: 48 Lecture total.
Principles, methods, and procedures essential to the successful management of human and financial resources. Planning, decision making, staffing, directing, motivating, leading, communicating, controlling and the application of managerial skills. (Same as Business 120.) **CSU**

Management 121
Human Relations and Organizational Behavior
Unit(s): 3
Class Hours: 48 Lecture total.
The role of the manager and management’s relationship to employees. Includes the application of motivational theories, communications, leadership, and organizational structure. (Same as Business 121.) **CSU**

Management 122
Business Communications
Unit(s): 3
Class Hours: 48 Lecture total.
Overview of oral and written communication skills used in business; emphasizes guidelines for improving writing and speaking skills, common solutions to common communication problems, ethical issues facing business communicators today, instructions on how to identify areas of legal vulnerability, and tested techniques for communicating successfully in today’s high-tech, international business environment. Suggested preparation: English 061 or English for Multi-lingual Students 112 or American College English 116. **CSU**

Management 123
Supervision
Unit(s): 3
Class Hours: 48 Lecture total.
A practical, skill building approach to learning and understanding first-line management and supervision. Designed to provide beginning and experienced supervisors with a hands-on situational approach using supervisory skills. **CSU**

Management 135
Human Resource Management
Unit(s): 3
Class Hours: 48 Lecture total.
Introductory course covers the goals, activities, and challenges of human resources. Includes equal employment opportunity and diversity, recruitment and selection, leadership and motivation, training and development, compensation, employee and labor/management relations. **CSU**

MARKETING (MKTG)

Marketing 111
Principles of Retailing
Unit(s): 3
Class Hours: 48 Lecture total.
Overview of the retail industry. Structure, scope, and evolution of retail institutions; retail decision making is emphasized in relation to the following topics: organization and store management; merchandise assortment, pricing, and layout; identifying markets; advertising, promotion, and sales. **CSU**

Marketing 112
Principles of Advertising
Unit(s): 3
Class Hours: 48 Lecture total.
An analysis of the principles of advertising as a marketing tool. The use of persuasive techniques about products, services, or ideas. Understanding the use of various media to increase product use, to build brand preference and loyalty, and to communicate information about a product. **CSU**

Marketing 113
Principles of Marketing
Unit(s): 3
Class Hours: 48 Lecture total.
The process of developing products that will satisfy the many needs of consumers and businesses. Includes market research techniques, pricing, distribution, and promotion. **CSU**

Marketing 114
Professional Selling
Unit(s): 3
Class Hours: 48 Lecture total.
Introductory course in sales covering sales presentations, communication styles, prospecting, closing, and evaluation of selling techniques and practices. Utilizes various methods to improve sales effectiveness. Covers objectives in selling from the perspective of the consumer, business, and society. **CSU**

Marketing 115
Consumer Behavior
Unit(s): 3
Class Hours: 48 Lecture total.
The investigation and analysis of why consumers select, purchase, use, and dispose of goods and services to satisfy their personal and household needs. **CSU**

Marketing 135
Web Marketing and Promotion
Unit(s): 3
Class Hours: 48 Lecture total.
How to include the Internet in a business marketing plan. Covers advertising and promoting products, services or ideas on the Internet, audience identification, search engine strategies and other basics of increasing business effectiveness with Internet usage. **CSU**

Marketing 172
Small Business Marketing and Advertising
Unit(s): 3
Class Hours: 48 Lecture total.
Techniques for promoting a small business. Includes preparation of advertisements, customer research, media selection, budgeting and scheduling, and the evaluation of promotional effectiveness. (Same as Business 172.) **CSU**
## Mathematics (Math)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics N05</td>
<td>Basic Mathematics</td>
<td>0.5 - 3</td>
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<tr>
<td>Class Hours: 64 Lecture total.</td>
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<tr>
<td>Mathematics N06</td>
<td>Essential Mathematics</td>
<td>3</td>
<td>0.2</td>
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<tr>
<td>Class Hours: 64 Lecture total.</td>
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<tr>
<td>Mathematics N48</td>
<td>Pre-Algebra/Algebra Basics</td>
<td>4</td>
<td>0.2</td>
<td>Mathematics N05 or Math N06; or placement into Mathematics N48 on the Mathematics Level 1 placement exam and a course equivalent to Mathematics N05 or Mathematics N06. For students who have little or no previous algebra experience. This course offers an introduction to basic algebra concepts, math vocabulary, algebraic operations. This course is intended to be a bridge from basic arithmetic to elementary algebra. Not applicable to associate degree.</td>
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<tr>
<td>Class Hours: 64 Lecture total.</td>
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<tr>
<td>Mathematics N48L</td>
<td>Pre-Algebra/Algebra Basics Math Lab</td>
<td>0.2</td>
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<tr>
<td>Class Hours: 9 Laboratory total.</td>
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<tr>
<td>Mathematics 060</td>
<td>Elementary Algebra</td>
<td>4</td>
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<td>Mathematics N48 or placement into Mathematics 060 on the Mathematics Level 1 or 2 placement exam and a course equivalent to Mathematics N48. A first course in algebra which includes solutions and applications of first and second degree equations, geometric concepts, graphs, inequalities, exponents, polynomials, and algebraic fractions.</td>
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<tr>
<td>Class Hours: 64 Lecture total.</td>
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<tr>
<td>Mathematics 061</td>
<td>Beginning Algebra Lab</td>
<td>0.2</td>
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<td>Class Hours: 9 Laboratory total.</td>
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<tr>
<td>Mathematics 060L</td>
<td>Beginning Algebra Math Lab</td>
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<tr>
<td>Class Hours: 9 Laboratory total.</td>
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<tr>
<td>Mathematics 060</td>
<td>Elementary Algebra with Lab</td>
<td>4</td>
<td></td>
<td>Mathematics 060 or 061 with a grade of C or better; or placement into Math 080 or 081 on the Mathematics level 2 placement exam and a course equivalent to Mathematics 060 or 061. A second course in algebra that includes systems of equations: inequalities, graphs and functions; radicals, quadratic polynomials, rational expressions; exponential and logarithmic functions, problem solving. Laboratory assignments to be completed in the Math Study Hall.</td>
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<tr>
<td>Class Hours: 64 Lecture, 16 Laboratory total.</td>
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<tr>
<td>Mathematics 070</td>
<td>Geometry</td>
<td>3</td>
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<td>Class Hours: 64 Lecture total.</td>
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<tr>
<td>Mathematics 073L</td>
<td>Math Review</td>
<td>0.2</td>
<td></td>
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<tr>
<td>Class Hours: 9 Laboratory total.</td>
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<tr>
<td>Mathematics 080</td>
<td>Intermediate Algebra</td>
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<tr>
<td>Class Hours: 80 Lecture total.</td>
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<tr>
<td>Mathematics 080L</td>
<td>Intermediate Algebra Math Lab</td>
<td>0.2</td>
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<tr>
<td>Class Hours: 9 Laboratory total.</td>
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<tr>
<td>Mathematics 081</td>
<td>Intermediate Algebra With Lab</td>
<td>4</td>
<td></td>
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<tr>
<td>Class Hours: 80 Lecture, 16 Laboratory total.</td>
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<tr>
<td>Mathematics 083L</td>
<td>Math Review</td>
<td>0.2</td>
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<td>Class Hours: 9 Laboratory total.</td>
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<tr>
<td>Mathematics 085L</td>
<td>Basic Math Anxiety</td>
<td>1</td>
<td></td>
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<tr>
<td>Class Hours: 16 Lecture total.</td>
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<tr>
<td>Mathematics 087L</td>
<td>Math Review</td>
<td>0.2</td>
<td></td>
<td></td>
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<tr>
<td>Class Hours: 9 Laboratory total.</td>
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</tbody>
</table>

**Mathematics 05**

Mathematics N05

Basic Mathematics

Unit(s): 0.5 - 3

Class Hours: 64 Lecture total.

Reviews whole numbers, fractions, decimals, percents, geometric formulas and signed numbers using lectures, self-paced computer assisted instruction, and manipulative activities. Not applicable to associate degree. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Mathematics N06

Essential Mathematics

Unit(s): 3

Class Hours: 64 Lecture total.

Reviews whole numbers, fractions, decimals, percents, geometric formulas and signed numbers. Not applicable to associate degree.

Mathematics N48

Pre-Algebra/Algebra Basics

Unit(s): 4

Class Hours: 64 Lecture total.

Prerequisite: Mathematics N05 or Mathematics N06; or placement into Mathematics N48 on the Mathematics Level 1 placement exam and a course equivalent to Mathematics N05 or Mathematics N06. For students who have little or no previous algebra experience. This course offers an introduction to basic algebra concepts, math vocabulary, algebraic operations. This course is intended to be a bridge from basic arithmetic to elementary algebra. Not applicable to associate degree.

Mathematics N48L

Pre-Algebra/Algebra Basics Math Lab

Unit(s): 0.2

Class Hours: 9 Laboratory total.

Prerequisite: Concurrent enrollment in Mathematics N48.

Students in Math N48 classes will receive individual and/or group instruction of topics based on their current math course. The course is designed to review, enhance and/or advance students' knowledge of mathematics based on their individual need. May be repeated. Grade: Pass/No Pass Only.

Mathematics 060

Elementary Algebra

Unit(s): 4

Class Hours: 64 Lecture total.

Prerequisite: Mathematics N48 or placement into Mathematics 060 on the Mathematics Level 1 or 2 placement exam and a course equivalent to Mathematics N48. A first course in algebra which includes solutions and applications of first and second degree equations, geometric concepts, graphs, inequalities, exponents, polynomials, and algebraic fractions.

Mathematics 061

Elementary Algebra with Lab

Unit(s): 4

Class Hours: 64 Lecture, 16 Laboratory total.

Prerequisite: Mathematics N48; or placement into Mathematics 061 on the Mathematics Level 1 or 2 placement exam and a course equivalent to Mathematics N48. A first course in algebra which includes solutions and applications of first and second degree equations, geometric concepts, graphs, inequalities, exponents, polynomials, and algebraic fractions. Laboratory assignments to be completed in the Math Study Hall.

Mathematics 070

Geometry

Unit(s): 3

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 060 or 061 or placement into Mathematics 070 on the Mathematics Level 2 placement exam and a course equivalent to Mathematics 060 or 061.

Basic Euclidean geometry. Includes concepts of lines, planes, triangles, congruence, proofs, inequalities, parallel lines, similarity, areas, and volumes.

Mathematics 073L

Math Review

Unit(s): 0.2

Class Hours: 9 Laboratory total.

Students requiring specific math knowledge in courses outside the math department (such as water science, surveying, physics, accounting, etc.) will receive individual instruction of mathematical topics based on their individual need. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit.
Mathematics 093L
Math Review
Unit(s): 0.2
Class Hours: 9 Laboratory total.
Prerequisite: Enrollment in mathematics course numbered 100 or greater.
Students enrolled in a transferable math class will receive individual and/or group instruction of topics based on their current math course. The course is designed to review, enhance and/or advance students' knowledge of mathematics based on their individual need. May be repeated. Grade: Pass/No Pass Only. Open Entry/Open Exit.

Mathematics 105
Mathematics for Liberal Arts Students
Unit(s): 3
Class Hours: 64 Lecture total.
Prerequisite: Mathematics 080 or 081 or equivalent skills as measured by the Math Level 3 Exam and a course equivalent to Mathematics 080 or 081.
An overview of mathematics for the liberal arts student. Topics will include problem solving, financial management, probability, statistics, and selected other topics such as set theory, geometry, logic, mathematical modeling, and the history of mathematics. CSU/UC

Mathematics 140
College Algebra
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Mathematics 080 or 081 or equivalent skills as measured by the Math Level 3 Exam and a course equivalent to Mathematics 080 or 081.
Survey of advanced topics in algebra: equations, inequalities and functions involving polynomials, rationals, exponentials, and logarithms with applications and graphing; sequences and series; counting theory; probability. CSU/UC

Mathematics Course Sequences

Math/Science/Engineering
Math 160* Trigonometry
Math 170 Pre-calculus
Calculus Sequence Math 180 Math 185 Math 280
Calculus Sequence Math 290/295

Business/Social Sciences
Math 140 College Algebra OR Math 105 Liberal Arts Math OR Math 219 or 219H Statistics and Probability
Math 150 Business Calculus

Liberal Arts
Math 105 Liberal Arts Math
Math 203 For Elementary Teachers

Note: Where a student places in the sequence will depend upon previous background and test scores. Check prerequisites for all courses.
Note: Students planning to transfer to a four-year school should work carefully with a counselor and the catalog of the school of transfer.
* Geometry prerequisite.
Mathematics 150
Calculus for Biological, Management and Social Sciences
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 140 or placement into Mathematics 150 on the Mathematics Level 3 placement exam and a course equivalent to Mathematics 140. Single and multi-variable calculus including limits, derivatives, integrals, exponentials and logarithmic functions and partial derivatives. Applications are drawn from Biology, Social Science and Business. CSU/UC

Mathematics 160
Trigonometry
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Both Mathematics 070 and 080 or 081 or placement in Mathematics 160 with the Mathematics Level 3 exam and courses equivalent to Mathematics 070 and 080 or 081. Mathematics 160, (May be taken concurrently).

Angles and their measurement, trigonometry functions and their applications, including vector problems. Use of trigonometric identities. Graphing the basic functions and variations, solving trigonometric equations. Graphing using polar coordinates, and use of complex numbers. CSU

Mathematics 170
Pre-Calculus Mathematics
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 160 or equivalent skills as measured by the Math Level 4 Exam and a course equivalent to Mathematics 160.

Advanced algebraic topics. Study of rational, trigonometric, exponential and logarithmic functions, and analytic geometry. Preparation for Mathematics 180. CSU/UC

Mathematics 180
Analytic Geometry and Calculus
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 170 (Precalculus) or equivalent skills as measured by the Math Level 4 Exam and a course equivalent to Mathematics 170.

Limits and continuity, derivatives and integrals of algebraic, trigonometric, and other transcendental functions. Applications including extrema tests, related rates and areas. CSU/UC

Mathematics 180H
Honors Analytic Geometry and Calculus
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above and Mathematics 170 (Precalculus) or equivalent skills as measured by Mathematics Level 4 Exam and a course equivalent to Mathematics 170.

An in-depth honors level study of limits and continuity, derivatives and integrals of algebraic, trigonometric, and transcendental functions with the emphasis on theory and challenging problems. Applications include extrema tests, related rates and areas. CSU/UC

Mathematics 185
Analytic Geometry and Calculus
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 180 or 180H.

Applications of integrals, including volumes, work, arc length, and surface area. Integration techniques, differential equations, conics, parametric equations, polar coordinates, improper integrals, sequences and infinite series. CSU/UC

Mathematics 203
Fundamental Concepts of Elementary Mathematics
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Mathematics 105 or 140 or 145 or 170 or 219 or 219H or Social Science 219 or 219H.

Designed for prospective elementary teachers, the course emphasizes problem solving techniques and mathematical structure associated with numeration, set theory, elementary number theory, real number system, ratio, proportion, and percent. The course includes instructional delivery design and activity-based explorations. CSU/UC

Mathematics 219
Statistics and Probability
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 080 or 081 or placement into Mathematics 219 on the Mathematics Level 3 placement exam and a course equivalent to Mathematics 080 AND a course equivalent to Mathematics 080.

Beginning course in statistics. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics. Includes use of technology. (Same as Social Science 219.) CSU/UC

Mathematics 219H
Honors Statistics and Probability
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 080 or 081 or placement into Mathematics 219 on the Mathematics Level 3 placement exam and a course equivalent to Mathematics 080 or 081 and a high school or college GPA of 3.0 or higher.

Enhanced format for the beginning course in statistics and probability, using a seminar approach, computers, individual research, and presentations. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA and non-parametric statistics, with applications designed around the individual interests of students. (Same as Social Science 219H.) CSU/UC

Mathematics 220
Intermediate Calculus
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Mathematics 185.

Vectors and three-dimensional space, functions of several variables, partial derivatives and multiple integrals. Vector calculus, Green’s Theorem, Stoke’s Theorem and the Divergence Theorem. CSU/UC

Mathematics 227
Introduction to Linear Algebra and Differential Equations
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Mathematics 280.

Topics include matrices, determinants, vector spaces, linear systems of equations, linear product spaces, first and second order differential equations, systems of differential equations, and the Laplace transform. CSU/UC

Mathematics 280
Linear Algebra
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: Mathematics 280.

Systems of linear equations, matrices, determinants, Euclidean and abstract vector spaces, linear transformations, eigenvalues and eigenvectors, applications of linear algebra, proofs of course concepts. CSU/UC
Mathematics 295  
Beginning Differential Equations  
Unit(s): 4  
Class Hours: 64 Lecture total.  
Prerequisite: Mathematics 280. 
Introduction to the theory, techniques  
and applications of ordinary differential  
equations, first and second order ODEs,  
linear systems of ODEs, infinite series,  
Laplace transforms; matrix solutions and  
eigenvalues; linear independence, and  
numerical methods. Completion of or  
concurrent enrollment in Mathematics 290  
recommended. CSU/UC

MUSIC (MUS)

Music 011  
Reading and Making Music  
Unit(s): 2  
Class Hours: 32 Lecture total. 
Introduction to music reading. Practical  
experience in learning how to perform  
melodies, rhythms and simple chords  
from a written score. Suggested for  
beginning instrumental and voice stu-  
dents, and those who want to know  
more about music. Recommended as  
preparation for music theory.

Music 034A  
Song Writing Workshop  
Unit(s): 1  
Class Hours: 16, 16 Laboratory total.  
Instruction in song writing (words and  
music) in various styles. Career and  
business aspects introduced. Ability to  
notate music not necessary. Students  
are required to present their songs in  
class, live or pre-recorded. Grade: Pass/  
No Pass Only.

Music 034B  
Song Writing Workshop  
Unit(s): 1  
Class Hours: 16, 16 Laboratory total.  
Prerequisite: Music 034A. 
Advanced instruction in song writing  
(words and music) in various styles.  
Assignments differ from Music 034A.  
Career/business aspects further explored.  
Songs presented in class. Students are  
encouraged to concurrently enroll in  
Music 011 or 111. May be repeated.  
Grade: Pass/No Pass Only.

Music 061  
Basic Piano Skills 1  
Unit(s): 1  
Class Hours: 16, 16 Laboratory total.  
Group instruction for beginners  
emphasizing note reading, basic keyboard  
skills, and sight reading. Practice outside  
of class required. Practice pianos  
available on campus. Grade: Pass/No  
Pass Only.

Music 101  
Music Appreciation  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Designed to increase awareness and  
appreciation of music from the Europe- 
an classical tradition in relation to gen- 
eral culture and history. Develops basic  
understanding of musical elements and  
deeps student’s experience of music.  
Recommended for non-music majors.  
CSU/UC

Music 101H  
Honors Music Appreciation  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Prerequisite: A high school or college GPA  
of 3.0 or above. 
An enriched approach designed for  
honors students. The European classical  
music tradition through study of musical  
elements, stylistic features, culture and  
history. Readings, guided listening  
assignments, required concert attend- 
dance and special projects. Recommended  
for non-music majors. CSU/UC

Music 102  
World Music  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Music from the Far East, Southeast  
Asia, Africa, the Middle East, Europe  
and the Americas. Students are guided  
to enjoy and to understand music from  
diverse cultures. Investigation of the  
interconnections of culture, aesthetics,  
and musical styles. Concert attendance  
and assigned listening required. CSU/UC

Music 103  
Jazz in America  
Unit(s): 3  
Class Hours: 48 Lecture total.  
A historical survey of the development  
and evolution of jazz in America from  
its earliest roots in African and Euro- 
pean music. The study will also include  
the social and economic conditions  
which influenced this art form. CSU/UC

Music 104  
Rock Music History and Appreciation  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Historical survey of rock music from its  
beginnings in the 50’s to the present.  
All Rock and Pop styles will be dis- 
cussed. Personalities and musical styles  
will be related to the sociology of the  
time period being studied. CSU/UC

Music 121  
Beginning Voice  
Unit(s): 1  
Class Hours: 16, 16 Laboratory total.  
Group instruction designed to develop  
basic principles of solo and choral voice  
production, diction, breath control,  
and posture. Practice outside of class  
required. Recommended for non music  
majors and for music majors not study- 
ing privately. CSU/UC

Music 122  
Intermediate Voice  
Unit(s): 1  
Class Hours: 16, 16 Laboratory total.  
Prerequisite: Music 121. 
Group instruction designed to develop  
intermediate principles of solo and  
choral voice production, diction, breath  
control and posture. Vocal analysis of  
each student emphasized. Practice out- 
side of class required. Song literature  
matched to student level. Designed for  
both music majors and non music ma- 
jors. CSU/UC

Music 123  
Advanced Voice  
Unit(s): 1  
Class Hours: 16, 16 Laboratory total.  
Prerequisite: Music 121. 
Group instruction designed to present  
advanced vocal exercises for solo and  
choral vocal production. Instruction  
includes song literature in English and  
foreign languages. Practice outside  
of class required. Designed for  
both music majors and non music ma- 
jors. CSU/UC

Music 124  
Advanced Vocal Production and  
Repertoire  
Unit(s): 1  
Class Hours: 16, 16 Laboratory total.  
Prerequisite: Music 123. 
Continuation of group instruction for  
students who have completed three  
semesters of voice and can perform at  
an advanced level. Further develops  
advanced vocal and choral production  
through a variety of vocalize styles and  
techniques. Instruction includes ad- 
vanced English and foreign language  
song literature. Practice outside of class  
required. Designed for both music ma- 
jors and non music majors. CSU/UC
Music 131
Masterworks Chorale
Unit(s): 1
Class Hours: 72 Laboratory total.
Rehearsal and performance of standard and current masterworks repertoire. Designed to train students in oratorio ensemble singing. Public performance emphasized. Each semester requires performance of a variety of new and different repertoire. Designed for students who have basic singing skills. May be repeated. CSU/UC

Music 135
Concert Chorale
Unit(s): 1
Class Hours: 72 Laboratory total.
Rehearsal and performance of standard and current choral repertoire. Designed to train students in mixed ensemble singing. Public performance emphasized. Each semester requires performance of a variety of new and different repertoire. Designed for students who have basic singing skills. May be repeated. CSU/UC

Music 136
Collegiate Choir
Unit(s): 1
Class Hours: 48 Laboratory total.
Mixed chorus for general-interest singers. Rehearses and performs a variety of music, including classical, folk tunes, and songs from Broadway musicals. Limited daytime performances. Each semester requires performance of a variety of new repertoire. May be repeated. Grade: Pass/No Pass Only. CSU/UC

Music 137
Chamber Choir
Unit(s): 1
Class Hours: 64 Laboratory total.
Prerequisite: Audition. Rehearsal and performance of chamber choir repertoire from various historical periods. Course designed for festival and concert performance. Each semester requires the performance of new repertoire. May be repeated. CSU/UC

Music 161
Class Piano I
Unit(s): 1
Class Hours: 16 Lecture, 16 Laboratory total. Group instruction for beginners emphasizing note reading, basic keyboard skills, chord patterns and sight reading. Practice outside of class required. Practice pianos available on campus. Required for music majors whose principal instrument is not piano. CSU/UC

Music 162
Class Piano II
Unit(s): 1
Class Hours: 16 Lecture, 16 Laboratory total.
Prerequisite: Music 061 or 161. Group instruction for those possessing basic piano skills, but still classified as beginners. Emphasizes note reading, keyboard technique, chord patterns, sightreading. Daily practice required. Practice pianos available on campus. Required for music majors whose principal instrument is not piano. CSU/UC

Music 163
Class Piano III
Unit(s): 1
Class Hours: 16 Lecture, 16 Laboratory total.
Prerequisite: Music 162. Instruction for students who have completed two semesters of piano and are ready for the intermediate level. Emphasizes building technique, sight reading and performance. Daily practice required. Practice pianos available on campus. CSU/UC

Music 164A
Intermediate Piano Repertoire I
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Prerequisite: Music 163. Instruction for intermediate level students. Emphasizes solo material, technique, sight reading, interpretation, and performance. Daily practice required. Practice pianos available on campus. CSU/UC

Music 164B
Intermediate Piano Repertoire II
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Prerequisite: Music 164A. Continuation of instruction for advanced intermediate level students. Emphasizes solo material, technique, sight reading, and performance. Daily practice required. Practice pianos available on campus. CSU/UC

Music 185
Beginning Classical Guitar
Unit(s): 1
Class Hours: 16 Lecture, 16 Laboratory total. Guitar playing techniques of right hand and left hand fingers. Development of correct finger usage. Basic instruction in reading staff notation and relating staff notation to practical playing of solo and ensemble repertoire. Student must furnish nylon string guitar. CSU/UC

Music 186
Intermediate Classical Guitar
Unit(s): 1
Class Hours: 16 Lecture, 16 Laboratory total.
Prerequisite: Music 185. Instruction at the intermediate level in solo, duo and trio repertoire. Emphasizes technique studies and performance styles of 18th through 19th century music. Student must provide nylon string guitar. May be repeated. CSU/UC

Music 187
Advanced Classical Guitar
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Prerequisite: Music 187. Instruction at the advanced level in solo, duo and trio repertoire. Emphasizes advanced technical studies and etudes and performance styles of 16th through 20th century music. Student must provide nylon string guitar. May be repeated. CSU/UC

Music 188
Advanced Classical Guitar Technique and Repertoire
Unit(s): 1
Class Hours: 8 Lecture, 24 Laboratory total.
Prerequisite: Music 187. Further develops advanced technique and solo performance through study of Renaissance, Baroque, and Classical ornamentation and various performance styles of 16th through 20th century music. Student must provide nylon string guitar. May be repeated. CSU/UC

NUTRITION AND FOOD (NUTR)

Nutrition and Food 115
Nutrition
Unit(s): 3
Class Hours: 48 Lecture total. Scientific concepts of nutrition relating to the functioning of nutrients in the basic life process. Emphasis is on individual needs, food sources of nutrients, current nutrition issues and diet analysis. CSU/UC

PHILOSOPHY (PHIL)

Philosophy 106
Introduction to Philosophy
Unit(s): 3
Class Hours: 48 Lecture total. A survey of historical and contemporary ideas on how to live the good life. CSU/UC
Philosophy 106H
Honors Introduction to Philosophy
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA 3.0 or above.
An enriched approach designed for honors students. A survey of historical and contemporary ideas on how to live the good life. CSU/UC

Philosophy 108
Ethics
Unit(s): 3
Class Hours: 64 Lecture total.
Introduction to key historical and modern theories of philosophical ethics and the application of these theories to ethical issues facing society today. Assists in clarifying our thinking about morality/ethics. Course increases awareness of values in personal and contemporary issues. CSU/UC

Philosophy 110
Critical Thinking
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: English 101 or 101H.
College-level critical thinking and writing. Promotes self-awareness, independent thinking, and improved academic expression. Examines philosophical methods of reasoning and composition, and the uses of informal logic and criticism in personal life, college, work, and democratic society. CSU/UC

Philosophy 110H
Honors Critical Thinking
Unit(s): 4
Class Hours: 64 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above and a grade of C or better in English 101/101H.
An enriched approach designed for honors students in a seminar setting. College-level critical thinking and writing. Promotes self-awareness, independent thinking, and improved academic expression. Examines philosophical methods of reasoning and composition, and the uses of informal logic and criticism in personal life, college, work, and democratic society. CSU/UC

Philosophy 111
Introductory Logic
Unit(s): 4
Class Hours: 64 Lecture total.
Beginning course in formal and applied logic. Covers cognitive language, formal argument, proof, basic propositional and predicate logic, and philosophy of logic. Uses computer assisted instruction. Emphasizes active student involvement and practical application to college life. CSU/UC

Philosophy 112
World Religions
Unit(s): 3
Class Hours: 48 Lecture total.
A philosophical overview of the world’s great religions. Includes historical origin and growth of each religion, major doctrines, and influence. Religions dealt with include Primitive, Hinduism, Jainism, Buddhism, Taoism, Confucianism, Judaism, Christianity and Islam. CSU/UC

Philosophy 115
Philosophy of Religion
Unit(s): 3
Class Hours: 48 Lecture total.
An introduction to the philosophical analysis of religious beliefs and concepts, including the nature of religion, the nature and existence of some kind of ultimate reality, the problem of evil, the meaning of religious language, the authenticity of religious experiences, the relation between religion and ethics, the relation between religion and science, and religious diversity. CSU/UC

Philosophy 118
History of Philosophy
Unit(s): 3
Class Hours: 48 Lecture total.
An introduction to philosophy from an historical perspective: getting acquainted with the thoughts of the world’s great philosophers. Provides a survey of the dominant philosophies of the ancient, medieval, and modern worlds. CSU/UC

Philosophy 120
Introduction to Social and Political Philosophy
Unit(s): 3
Class Hours: 48 Lecture total.
A critical examination of rights theory, liberty, justice, individualism, community, state power, political authority, natural law, property, social contract theory, ideology, obedience, alienation, and various forms of social order (e.g., democracy, totalitarianism, theocracy, socialism) from the perspective of social and political philosophy, including multi-cultural and feminist viewpoints and critiques. CSU/UC

Philosophy 144
Reasoning and Problem Solving
Unit(s): 3
Class Hours: 48 Lecture total.
The nature of critical thinking, models and strategies; common fallacies of reasoning, self-regulation in the thinking process; application of critical thinking to complex issues of life. (Same as Counseling 144.) CSU/UC

PHYSICS (PHYS)

Physics 109
Survey of General Physics
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
The study of important phenomena in physics. Topics include: mechanics, fluids, thermodynamics, sound, light, electricity, magnetism and modern physics. Recommended for all students interested in a conceptual approach to physics and students planning on taking more advanced courses in physics. CSU/UC

Physics 210
Principles of Physics I
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Mathematics 180/180H.
A calculus-based physics course designed for students majoring in the life sciences, pre-medicine, and related disciplines. Topics include classical mechanics, wave motion, and thermodynamics. CSU/UC

Physics 211
Principles of Physics II
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Physics 210 and Mathematics 180/180H.
A calculus-based physics course designed for students majoring in the life sciences, pre-medicine, and related disciplines. Topics include: electricity and magnetism, light, optics, and modern physics. CSU/UC

PHYSICAL SCIENCE (PSC)

Physical Science 115
Concepts in Physical Sciences for Educators
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
An investigation of basic principles of physics and chemistry including matter, physical and chemical properties, energy, motion, light, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. Designed for non-science majors, concepts are introduced in lab through inquiry and further developed during discussion. CSU/UC
Physics 217
Engineering Physics I
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Mathematics 180/180H.
Principles of classical mechanics including particle dynamics, forces, work, energy, momentum, rotational motion, equilibrium, harmonic motion and gravity. This course is designed for students majoring in physical sciences and engineering. CSU/UC

Physics 227
Engineering Physics II
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Physics 217 and Mathematics 185.
Introduces the basic principles of electricity and magnetism. The main topics are electrostatics, circuits, magnetism, electro-magnetic induction, and Maxwell's equations. This course is designed for students majoring in physical sciences and engineering. CSU/UC

Physics 237
Engineering Physics III
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Physics 217 and Mathematics 185.
Introduces the basic principles of fluids, thermodynamics, sound, light, optics, and modern physics. This course is designed for students majoring in physical sciences and engineering. CSU/UC

Physics 279
College Physics I
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Mathematics 160.
A trigonometry-based physics course. Topics include: mechanics, thermodynamics, fluids, oscillatory motion, and sound. CSU/UC

Physics 289
College Physics II
Unit(s): 4
Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Physics 279 and Mathematics 160.
A trigonometry-based physics course. Topics include: light, electricity, magnetism, and modern physics. CSU/UC

POLITICAL SCIENCE (POLT)

Political Science 101
Introduction to American Governments
Unit(s): 3
Class Hours: 48 Lecture total.
Study of United States national government and California state and local governments. Satisfies graduation requirement for American institutions and state requirements for California state government. CSU/UC

Political Science 101H
Honors Introduction to American Governments
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
A student-oriented exploration of the historical and contemporary principles of American government. Study groups and individual computer-based research focus on basic political concepts of American national and state governments. Satisfies graduation requirement for American Institutions and state requirements for California state government. CSU/UC

Political Science 121
Model United Nations
Unit(s): 3
Class Hours: 48 Lecture total.
An introductory course in the study of the United Nations. The focus will be on the role of the United Nations in world politics in relation to the success and failure of theories of collective security, international disputes resolution, human rights, peacekeeping attempts and technological cooperation. Students are encouraged to attend Model United Nations conferences selected by the instructor. May be repeated. CSU

Political Science 122
Model United Nations Team Events
Unit(s): 2
Class Hours: 96 Laboratory total.
Model United Nations Team Events training for intercollegiate United Nations conferences and competitions. Instruction and direction for delegate training. Preparation for international current event debates, parliamentary debate and conflict resolution exercises. Participation in conferences and competitions simulating policies and conflicts within the United Nations. May be repeated. CSU

Political Science 123
Model United Nations Individual Events
Unit(s): 2
Class Hours: 96 Laboratory total.
Model United Nations Individual Events training for intercollegiate United Nations conferences and competitions. Instruction and direction for delegate training. Preparation for international current event debates, parliamentary debate and conflict resolution exercises. Participation in conferences and competitions simulating policies and conflicts within the United Nations. May be repeated. CSU

Political Science 200
American Political Thought
Unit(s): 3
Class Hours: 48 Lecture total.
An inquiry into the major influences that have shaped American political thought. Emphasis is on an historical analysis of political thought contributing to contemporary politics. CSU/UC

Political Science 200H
Honors American Political Thought
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
An in-depth and intensive exploration of critical issues in American political thought and the influences that have shaped it. Emphasizing student interaction and essay writing in a seminar setting, the course focuses on an historical analysis of political thought contributing to contemporary American politics. CSU/UC

Political Science 201
Introduction to Comparative Politics
Unit(s): 3
Class Hours: 48 Lecture total.
A study of the histories, political cultures, and governmental arrangements of various nations and regions around the world. Comparative study is made of the “First World” or industrialized democracies, the “Second World” or former and current communist countries, and the “Third World” developing, and “Fourth World” non-developing countries. CSU/UC

Political Science 220
International Politics
Unit(s): 3
Class Hours: 48 Lecture total.
Introduction to basic principles and issues of international politics. Focus is on concepts of security, power, diplomacy, war, terrorism and globalization. Examines problems of rich versus poor nations in context of the new world order. CSU/UC
Political Science 221
Women in American Politics
Unit(s): 3
Class Hours: 48 Lecture total.
A historical and philosophical study of the role women play in the politics of the United States as voters, policy makers, and activists employing traditional and non-traditional methods. Attention will be devoted to topics of gender in education and the workplace, the politics of abortion, same sex marriage, and surrogate motherhood. The course will consider how race, class, age, and education affect the politicization of women. Political Science 101 recommended. CSU/UC

Political Science 222
Current Issues in American Politics
Unit(s): 3
Class Hours: 48 Lecture total.
This course will focus on current domestic and international issues in American politics. Attention will be given to understanding the ideological divisions that underline and inform much of the debate. Policies will be examined for their efficacy and morality. Arguments pro and con will be accessed on the basis of their ideological assumptions, logic, and strength of evidence. Political Science 101 recommended. CSU

Political Science 226
Contemporary Issues in California Government and Politics
Unit(s): 3
Class Hours: 48 Lecture total.
Survey of California government and politics with emphasis on the key issues facing the state. Consideration will be given to such policy areas as education, social welfare, fiscal, transportation and environment. This course meets the California (AREA US-3) component of the CSU American Institution graduation requirement. CSU

PSYCHOLOGY (PSYC)

Psychology 100
Introduction to Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
An introduction to the major theories, methods, concepts, ethical issues, and findings in the major fields in psychology including but not limited to research methods, biological bases of behavior, perception, learning, memory, cognition, emotion, motivation, development, personality, social, and abnormal psychology. CSU/UC

Psychology 100H
Honors Introduction to Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
Seminar-style, content enriched course for honors students emphasizing application and critical analysis of psychological concepts. An introduction to the major theories, methods, concepts, ethical issues, and findings in the major fields in psychology including but not limited to research methods, biological bases of behavior, perception, learning, memory, cognition, emotion, motivation, development, personality, social, and abnormal psychology. CSU/UC

Psychology 157
Introduction to Child Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
Survey of human development from conception through adolescence. Covers major theories of development (cognition, perception, language, personality, etc.) and their application to parenting, teaching, and other interactions with children. (No credit if student has taken Human Development 107.) CSU/UC

Psychology 170
Multicultural Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
Introduces students to important issues related to cultural diversity in the field of psychology. Major areas of psychology will be explored from a multicultural perspective, including research, mental health, social psychology, and identity development. Exploration of historically underrepresented populations in the U.S. will be emphasized. CSU/UC

Psychology 200
Introduction to Biological Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
Explores relationships between physiological structures of the body and human behavior. Focuses on the organization and function of the brain, spinal cord, peripheral nervous system, glands, sensory and perceptual systems. Relates physiological functioning to motivated behavior, addiction, and psychological disorders. CSU/UC

Psychology 219
Introduction to Research Methods in Psychology
Unit(s): 3
Class Hours: 32 Lecture, 48 Laboratory total.
Prerequisite: Social Science 219/219H or Mathematics 219/219H (may be taken concurrently) and Psychology 100/100H.
Emphasizes methods of study in psychology including: sound and ethical experimental design, analysis of variables contributing to experimental results, data treatment, and communicating findings. CSU/UC

Psychology 230
Psychology and Effective Behavior
Unit(s): 3
Class Hours: 48 Lecture total.
Application of theory and research in psychology to deal effectively with the adjustment demands of everyday life. Covers topics such as: interpersonal relationships, stress, health, time-management, and working. Includes exercises for increasing self-awareness, self-motivation, and self-management of everyday problems. CSU/UC

Psychology 240
Introduction to Social Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Psychology 100 or Sociology 100.
An exploration of the interlocking dynamics of psychology and sociology focusing on the impact of social groups on individuals and on other groups. Content includes self-development, interaction, attitudes, conformity, friendship, love, aggression, group dynamics. (Same as Sociology 240.) CSU/UC
Psychology 250  
Introduction to Abnormal Psychology  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Prerequisite: Psychology 100 or 100H.  
Introduction to the commonly diagnosed psychological disorders. Includes anxiety and mood disorders, somatoform and dissociative disorders, eating and sleep disorders, substance abuse, and impulse-control related disorders, sexual and gender identity disorders, personality disorders, schizophrenia and psychotic disorders, developmental and cognitive disorders. Emphasis is on identification, symptomatology, etiology, methods of therapeutic intervention and legal/ethical issues.  

PUBLIC WORKS (PBLC)  

Public Works 050  
Public Works I  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Overview of the public works industry, careers, departments, functions and the public and private organizations that employ these types of services. Understanding the environment of organizational structures involved in the public area. Cost and material estimations and math applied in determining need. Introduction to techniques, materials, and equipment used in public works maintenance and construction.  

Public Works 051  
Infrastructure Construction and Operations (Formerly Street and Highway Construction)  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Covers the infrastructure construction and operations processes including: equipment, scheduling, materials, methods, permitting, surveying and boundaries, planned maintenance, repairs for transportation, flood control, public spaces, utilities, transportation corridors and facilities of a city, municipality, county or state.  

Public Works 055  
Public Works Inspection I  
Unit(s): 3  
Class Hours: 48 Lecture total.  
General public works inspection techniques. Construction inspection tasks performed for cities, counties, and public agencies in California. Includes general policies and procedures for being an effective public works inspector and contract administrator assistant. Identify inspection duties and responsibilities along with methods in how to accomplish the inspection and contract administration tasks.  

Public Works 061  
Plan Interpretation and Cost Estimating  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Reading and interpreting plans related to public works, water, storm drain, and sewage facility projects. Concepts include lay-out, construction, rehabilitation, maintenance and inspection with material cost estimating of public works improvements. Basic survey methods, symbols, mathematical conversions, and determination of slope and grade.  

Public Works 062  
Public Works II  
Unit(s): 3  
Class Hours: 48 Lecture total.  
An in-depth study of the functions of the public works departments in the city, country, unincorporated areas and state such as public works engineering, emergency preparedness and response, budgeting, grants and alternative funding, environmental issues and reclamation projects, NPDES, code enforcement, GIS applications in public works, the private development processes and public works infrastructure.  

Public Works 065  
Public Works Inspection II  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Course designed to provide specific inspection techniques for construction methods and materials used in public works projects. Includes inspection techniques for earthwork, roadway surfacing, concrete structures, domestic water distribution pipelines, waste-water collection, storm drains, traffic signal, and treatment plants.  

Public Works 066  
Asphalt and Concrete for the Public Works Inspector  
Unit(s): 3  
Class Hours: 48 Lecture total.  
The duties and responsibilities of the Public Works Inspector as they relate to the principles, construction methods, distresses and failures, cylinders and masonry with quantity and cost estimating of asphalt and concrete.  

Public Works 075  
Public Administration  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Provides students with a background in the role of local, state and federal government sectors and related agencies, utilities and the relationships for governing, providing services and funding. Compares public and private sectors and their impact. Also examines the policies and politics that affect our cities, counties and citizens.  

Public Works 076  
Building Code Fundamentals  
Unit(s): 2  
Class Hours: 32 Lecture total.  
This course in non-structural building code fundamentals consists of hands-on training using California Building Code volumes I and II, covering 35 building code topics with an emphasis on the latest, 2007, changes. This course is appropriate for those who work, or seek to work, in city or county building departments, code inspection and enforcement, construction, project management, architecture, design or civil engineering.  

Public Works 077  
Energy Code and Green Building  
(Formerly Green Building and Energy Code)  
Unit(s): 1  
Class Hours: 16 Lecture total.  
Introduction to California energy and green and sustainable building codes for residential and commercial construction projects. The current code and standards, trends in environmental/green building are covered. City or county building departments, inspection and enforcement of above codes are discussed.  

Public Works 078  
Building Code Administration and Code Enforcement Process  
Unit(s): 2  
Class Hours: 32 Lecture total.  
Overview of building department administration: building-housing codes and municipal ordinances enforcement. Applicable sections of code and city planning and zoning regulations will be explored. Focus on daily operations of building department, duties of building officials, inspectors, technicians and code enforcement staff. Prepares individuals for careers in building department services and building industry such as inspection, code enforcement, contracting, architecture, building design, construction management, city planning, and civil engineering.
Public Works 079
Sustainable Living and Green Building Concepts
(Formerly Sustainable Living and Green Building Programs)
Unit(s): 1
Class Hours: 16 Lecture total.
Covers the 2008 California Energy Code and 2009 Green Building Standards Code for residential/non-residential projects. Mandatory, prescriptive and performance level requirements of these codes will be presented. Current regulations in energy efficient building design provides a solid base for careers in building, construction, utilities (SCC, SCG) industry such as designers, architects, building inspectors, project managers, building energy modelers/consultants and contractors.

Public Works 080
Principles of Project Management
Unit(s): 3
Class Hours: 48 Lecture total.
Utilizing project planning tools and techniques, learn how to define, plan, execute and deliver projects of all types and sizes. Emphasizing practical application using case studies to organize, schedule and manage projects effectively. Industry guest speakers included. (Same as Business 090.)

Public Works 081
Applied Project Management
Unit(s): 2
Class Hours: 32 Lecture total.
Prerequisite: Public Works 080.
An opportunity for students to implement the principles of Project Management with teams, projects, timelines, forecasts, and an evaluation at the conclusion.

Public Works 082
Project Management: Microsoft Project
Unit(s): 1
Class Hours: 16 Lecture total.
Microsoft Project is used to plan, track, monitor and evaluate project deliverables to completion, within budget and on time. The software allows for finding exceptions, and solving project problems using the planning, control, reporting and team management features of Microsoft Project.

Public Works 083
Capstone Project
(Formerly Project Management Capstone)
Unit(s): 1
Class Hours: 48 Laboratory total.
Prerequisite: Public Works 081.
In this capstone course, students will select, design, execute and report on an actual project for a client, business or community organization under the guidance of the instructor. Evaluation will be based on achieving goals, meeting timelines and staying within budget and accepted deliverables as well as the level and scope of the completed project.

Public Works 086
Basic Code Enforcement Officer
Unit(s): 1.5
Class Hours: 48 Lecture, 16 Laboratory total.
Mandatory, prescriptive and performance level requirements of these codes will be presented. Current regulations in energy efficient building design provides a solid base for careers in building, construction, utilities (SCC, SCG) industry such as designers, architects, building inspectors, project managers, building energy modelers/consultants and contractors.

Public Works 088
Advanced Code Enforcement Officer
Unit(s): 2.5
Class Hours: 40 Lecture total.
The Advanced Code Enforcement Officer Course provides technical knowledge for current Code Enforcement Officers that address comprehensive code cases that will require the interpretation and application of the Health and Safety and Building Codes. Course topics include: legal aspects with constitutional considerations including the Fourth Amendment, Vectors, Microbial Contamination, Building, Plumbing, Electrical, Mechanical, Fire Code and Officer Safety pertaining to Drug and Gang Awareness. Grade: Pass/No Pass Only.

Public Works 089
Code Enforcement Officer-Supervision
Unit(s): 1.5
Class Hours: 24 Lecture total.
Code Enforcement Officer-Supervision is designed for prospective, new and current Code Enforcement Officers. Those in related jobs will find supervision skills and knowledge used in the code enforcement departments of cities and counties helpful. Course topics include: budgeting, community relations and the media, human resource issues and employee counseling, leadership, communication, cost recovery and report writing. Grade: Pass/No Pass Only.

READING (READ)

Reading 096
Foundation for College Reading
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
Introduces strategies for developing vocabulary and reading comprehension skills. Word recognition, context clues and dictionary skills are addressed. Comprehension skills such as finding main idea and supporting details, and recognizing patterns and structures are presented. Includes strategies for effective reading practices and overcoming reading anxiety.

Reading 097
Advanced College Reading
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
Prerequisite: Reading 096 or qualifying profile from placement process.
Designed to expand reading comprehension, increase knowledge of academic vocabulary, develop basic critical reading skills, improve reading rate and build confidence and positive attitudes toward reading. Includes strategies for effective reading practices and overcoming reading anxiety.
Reading 102  
Academic Reading  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Introduces a repertoire of reading strategies aimed at preparing students for comprehension of complex college-level reading material. Advanced reading strategies provide the foundation for the development of critical reading and the recognition of patterns of academic thought. Reading strategies for specific disciplines, including the Social Sciences, Business, Humanities and the Arts, Mathematics and the Natural Sciences are presented. Completion of or concurrent enrollment in English 061 or recommended.  
CSU

Reading 150  
Critical Reading  
Unit(s): 3  
Class Hours: 48 Lecture total.  
This course addresses the relationship between critical reading and critical thinking, including emphasis on the development of critical reading and thinking skills that facilitate the interpretation, analysis, criticism, and advocacy of ideas encountered in academic reading. Completion of or concurrent enrollment in English 101 recommended.  
CSU

REAL ESTATE (RE)  

Real Estate 102  
Real Estate Principles  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Provides basic information about real estate and prepares students for advanced study in specialized courses. Includes deeds, titles, agency, contracts, mathematics, finance, appraisal, escrow, leases. Required for the California real estate salesperson license.  
CSU

Real Estate 103  
Legal Aspects of Real Estate  
Unit(s): 3  
Class Hours: 48 Lecture total.  
California real estate law including contracts, ownership, estates, easements, landlord-tenant, trust deeds, liens, agency, security devices, and land use. Applies towards: (1) required course for the California real estate salesperson licensing; and (2) California real estate broker’s license requirements.  
CSU

Real Estate 105  
Real Estate Practice  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Operation of the real estate business and the role of the agent. Includes listing, prospecting, sales techniques, use of current real estate forms; financing, title insurance, escrow and taxation. This course is required for the educational requirement for the California real estate salesperson license and may be applied toward the California real estate broker license requirements.  
CSU

Real Estate 106  
Real Estate Finance  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Analysis of real estate financing. Covers the mortgage market, lenders, conventional and government-backed loans, processing and closing loans, foreclosures. Applies towards the partial fulfillment for the educational requirements for (1) California real estate salesperson license and (2) California real estate broker license.  
CSU

Real Estate 110  
Real Estate Economics  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Covers the factors influencing real estate values. Includes business cycles, regional and community growth, influences on real estate development. Applies towards the partial fulfillment for the educational requirements for (1) California real estate salesperson license and (2) California real estate broker license.  
CSU

Real Estate 112  
Real Property Management  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Principles and practices of managing residential, apartment, commercial and income properties. Covers property management, leases and contracts, collections, rent schedules, tenant selection and supervision, and budgets. Applies towards the partial fulfillment for the educational requirements for (1) California real estate salesperson license and (2) California real estate broker license.  
CSU

Real Estate 114  
Appraisal Principles and Procedures  
Unit(s): 3.5  
Class Hours: 60 Lecture total.  
The principles and procedures of appraisal used to estimate market values; location analysis, standards and ethics, and the sales comparison, cost, and income approaches for residential properties. Course applies 60 hours of educational instruction towards the requirements for licensure from the California Office of Real Estate Appraisal (OREA). Course is required for the appraisal licenses for trainee, residential, certified residential, and certified general license.  
CSU

Real Estate 116  
Residential Real Estate Appraisal  
Unit(s): 3.5  
Class Hours: 60 Lecture total.  
Studies in residential market analysis and highest and best use; residential appraiser site valuation and cost approach; and residential sales comparison and income approach. Course applies 60 hours of educational instruction towards the requirements for licensure from the California Office of Real Estate (OREA). Course is required for the appraisal licenses for trainee, residential, certified residential, and certified general license.  
CSU

Real Estate 117  
Residential Report Writing and Case Studies  
Unit(s): 1  
Class Hours: 16 Lecture total.  
Residential report writing and case studies in appraisal to include theories, techniques, and procedures of using various residential forms and reports for appraisal. Course applies 16 hours of educational instruction towards the requirements for licensure from the California Office of Real Estate Appraisal (OREA). Course is required for the appraisal licenses for trainee, residential, certified residential, and certified general license.  
CSU

SIGN LANGUAGE (SIGN)  

Sign Language 110  
American Sign Language I  
Unit(s): 3  
Class Hours: 48 Lecture total.  
This introductory course is designed to introduce students to American Sign Language (ASL) and fingerspelling as it is used within American Deaf culture. Instruction includes preparation for visual/gestural communication followed by intensive work on comprehension skills, modeling of grammatical structures, and general information about American Deaf culture. Sign Language 110 is equivalent to two years of high school ASL.  
CSU/UC
Sign Language 111
American Sign Language II
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Sign Language 110.
The second course in the study of American Sign Language (ASL) focuses on vocabulary development, comprehension skills, grammatical structures and practice in the receptive and expressive aspects of ASL, as well as continued exposure to American Deaf culture. It is designed for the student or professional interested in working and interacting with the Deaf community. CSU/UC

Sign Language 112
American Sign Language III
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Sign Language 111.
The third course in the study of American Sign Language (ASL) emphasizes ASL syntax, facial grammar, vocabulary, and fingerspelling enabling students to participate in more complex conversations with Deaf community members. This course enhances students' receptive and expressive skills in ASL. It is designed for the student or professional interested in working and/or interacting with the Deaf community. CSU/UC

Sign Language 113
Introduction to Interpreting for the Deaf
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Sign Language 112.
Introduction to and survey of basic theories, principles and practices of American Sign Language Interpreting and Transliterating for the Deaf. Explores the full spectrum of the roles and ethical responsibilities of professional sign language interpreters in a variety of settings. Provides for practice of expressive and receptive skills. Includes instruction on national testing standards and preparation for certification. CSU

Sign Language 114
Classifiers, Fingerspelling, and Numbering
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Sign Language 111
This course is designed to provide specialized instruction in the continued development of skills and application of expanded conceptualization of American Sign Language (ASL) classifiers, fingerspelling, and numbering concepts. Expressive and receptive techniques will be emphasized. CSU

Sign Language 116
Perspectives on Deafness
Unit(s): 3
Class Hours: 48 Lecture total.
This is an introductory course exploring the cultural, educational, linguistic and audiological experiences of people who are deaf, hard of hearing, deaf/blind and late-deafened in America. Students will be exposed to historical and current perspectives in trends, philosophies, ideologies, and the deaf community as a subculture of American society. CSU/UC

SOCIAL SCIENCE (SOS)

Social Science 219
Statistics and Probability
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 080 or 081; or placement into Mathematics 219 on the Mathematics Level 3 placement exam AND a course equivalent to Mathematics 080 or 081.
Beginning course in statistics. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics. Includes use of technology. (Same as Mathematics 219.) CSU/UC

Social Science 219H
Honors Statistics and Probability
Unit(s): 4
Class Hours: 80 Lecture total.
Prerequisite: Mathematics 080 or 081 (or placement into Mathematics 219 on the Mathematics Level 3 placement exam and a course equivalent to Mathematics 080 or 081) and a high school or college GPA of 3.0 or higher.
Enhanced format for the beginning course in statistics and probability, using a seminar approach and computers and individual research, and presentations. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics, with applications designed around the individual interests of students. (Same as Mathematics 219H.) CSU/UC

Sociology 100
Introduction to Sociology
Unit(s): 3
Class Hours: 48 Lecture total.
The scientific study of human societies and behavior focusing on the process of social interaction, patterns of social inequality, and the influence of social institutions on individuals as members of social groups. Special emphasis provided to explain factors promoting social stability and social change. CSU/UC

Sociology 100H
Honors Introduction to Sociology
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
A seminar-style, content enriched course to provide a critical and extensive exploration of the sociological perspective, methods, and theories of social interaction, stability and change. Focuses on the importance of sociology for understanding individuals in a social context and provides a comprehensive understanding of and scientific way of thinking about society. CSU/UC

Sociology 112
Relationships, Marriages, and Family Dynamics
Unit(s): 3
Class Hours: 48 Lecture total.
In-depth examination of the process of developing intimate relationships leading to committed partnerships and marriages with emphasis on effective communication techniques, understanding relationship dynamics, parenting, diverse family systems and overcoming family stressors at each life stage. CSU/UC

Sociology 140
Analysis of Social Trends and Problems
Unit(s): 3
Class Hours: 48 Lecture total.
An extensive survey of contemporary social trends and problems through sociological analysis concentrating on their causes, complexities, consequences, and possible solutions. Special emphasis will be placed on the problems in the U.S., with consideration of the global perspective. CSU/UC
Sociology 140H
Honors Analysis of Social Trends and Problems
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: A high school or college GPA of 3.0 or above.
A seminar style, in-depth sociological analysis and critique of U.S. social trends and problems with an emphasis on contemporary and historical social policy with additional consideration of global perspectives. CSU/UC

Sociology 240
Introduction to Social Psychology
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Sociology 100 or Psychology 100.
An exploration of scientific study of how individuals think, feel, and behave in regard to other people and how individuals’ thoughts, feelings, and behaviors are affected by other people. Content includes social cognition, self-presentation, persuasion, social influence, friendship, love, prosocial behavior, aggression, group dynamics. (Same as Psychology 240.) CSU/UC

SPANISH (SPAN)

Spanish 101
Elementary Spanish I
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total.
Practice and integration of pronunciation, grammar, vocabulary, common idioms, listening, speaking, reading and writing techniques for the expression of ideas orally and in writing. Introduction of Hispanic culture. Designated sections focus on skills for Spanish speakers. Spanish 101 is equivalent to two years of high school Spanish. CSU/UC

Spanish 101A
Elementary Spanish IA
Unit(s): 2.5
Class Hours: 40 Lecture, 8 Laboratory total.
Spanish class focusing on pronunciation, grammar essentials, basic vocabulary including common idioms, listening, speaking, reading and writing techniques to provide avenues for the expression of ideas orally and in writing. Introduction to Hispanic culture is included. Spanish 101A and 101B together are equivalent in units and content to Spanish 101 and equivalent to 2 years of high school Spanish. CSU/UC

Spanish 101B
Elementary Spanish IB
Unit(s): 2.5
Class Hours: 40 Lecture, 8 Laboratory total.
Prerequisite: Spanish 101A.
Spanish class focusing on pronunciation, grammar essentials, basic vocabulary including common idioms, listening, speaking, reading and writing techniques for the expression of ideas orally and in writing. Introduction to Hispanic culture. Spanish 101A and 101B together are equivalent in units and contents to Spanish 101 and equivalent to two years of high school Spanish. CSU/UC

Spanish 101H
Honors Elementary Spanish I
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total.
Prerequisite: A high school or college GPA of 3.0 or above.
Enhanced and intensive practice and integration of pronunciation, grammar, vocabulary, common idioms, listening, speaking, reading and writing techniques for the expression of ideas orally and in writing. Enriched introduction of Hispanic culture. NOTE: Some sections are designated for Spanish speakers. Spanish 101H is equivalent to two years of high school Spanish. CSU/UC

Spanish 102
Elementary Spanish II
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total.
Prerequisite: Spanish 101 or 101H or 101A and 101B or two years of high school Spanish.
A college level Spanish class focusing on further training in language skills providing avenues for the expression of ideas orally and in writing. Additional study of Hispanic culture. Designated sections focus on skills for Spanish speakers. Spanish 102 is equivalent to the third year of high school Spanish. CSU/UC

Spanish 102H
Honors Elementary Spanish II
Unit(s): 5
Class Hours: 80 Lecture, 16 Laboratory total.
Prerequisite: Spanish 101/101H, or Spanish 101A and 101B or two years of high school Spanish and a high school or college GPA of 3.0 or above.
Further enhanced and intensive training in language skills for the expression of ideas orally and in writing. Additional enriched study of Hispanic culture. Note: Some sections are designated for Spanish speakers. Spanish 102H is equivalent to the third year of high school Spanish. CSU/UC

Spanish 105
Practical Communication in Spanish for Teachers
Unit(s): 2
Class Hours: 32 Lecture total.
Course emphasizes development of basic reading, oral, and written communication skills in Spanish for realistic situations in a classroom environment and familiarizes students with the culture of Spanish-speakers. Successful completion of Spanish 101 or Spanish 101B is highly recommended. CSU

Spanish 194
Beginning Conversational Spanish (Formerly Conversation and Composition)
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Spanish 101 or Spanish 101B or two years of high school Spanish.
Development of conversational and composition skills. Review of language structure through discussions, conversations, readings and compositions dealing with Spanish speakers culture and current events. CSU

Spanish 195A
Advanced Conversational Spanish
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Spanish 102 or 102H.
Further development of conversational skills. Review of language structures as well as reinforcement of new vocabulary and idioms through discussions of reading selections dealing with historical and current events to deepen appreciation of Hispanic cultures. CSU/UC

Spanish 195B
Advanced Conversational Spanish
Unit(s): 3
Class Hours: 48 Lecture total.
Prerequisite: Spanish 195A.
Continuation of development of conversational skills. Provides avenues for the expression of ideas introduced in literary and current event readings through discussions and class presentations to deepen appreciation of Hispanic cultures. CSU/UC

Spanish 201
Intermediate Spanish I
Unit(s): 5
Class Hours: 80 Lecture total.
Prerequisite: Spanish 102 or 102H or three years of high school Spanish.
A college level Spanish class focusing on expansive review of usage and grammar, discussions of interpretive readings, conversation, and composition. CSU/UC
Spanish 202  
Intermediate Spanish II  
Unit(s): 5  
Class Hours: 80 Lecture total.  
Prerequisite: Spanish 201 or 201H or four years of high school Spanish.  
A college level Spanish class focusing on a specialized review of grammar and composition; discussions in Spanish of history and culture based on literary materials.  

Spanish 213  
College Spanish Composition  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Prerequisite: Spanish 201 or three years of high school Spanish; concurrent enrollment in Spanish 201.  
Writing of composition through discussions and interpretive readings.  

Class Hours: 10-48 Laboratory total.  
Prerequisite: Spanish 201 or 201H or four years of high school Spanish.  
A college level Spanish class focusing on a specialized review of grammar and composition; discussions in Spanish of history and culture based on literary materials.  

Special Services N64B  
Applied Academic Coaching  
Unit(s): 0.2 - 1  
Class Hours: 10-48 Laboratory total.  
Provides specialized instructional support for college coursework through a collaborative coaching process. Students will monitor their academic progress, develop problem solving skills related to the application of learning strategies to college coursework, increase time management and organizational skills, and practice self-advocacy. Students must have a verified learning disability. May be repeated.  
Grade: Pass/No Pass Only. Open Entry/Open Exit.  

Special Services N65  
Academic Coaching  
Unit(s): 0.2 - 1  
Class Hours: 48 Laboratory total.  
Provides academic monitoring and support for college coursework through a collaborative coaching process based on individualized assessment. Includes specialized tutoring, learning strategies training, and the development of skills related to planning and organization, self-advocacy and basic academics. Student must have verified learning disability. Not applicable to associate degree.  
Grade: Pass/No Pass Only. Open Entry/Open Exit.  

Special Services N68  
Learning With Technology  
Unit(s): 3  
Class Hours: 48 Lecture total.  
An introduction to the computer technology tools available to support learning. Students will learn computer basics, assistive computer applications, Microsoft Office, email fundamentals, basics, assistive computer applications, and the generation of digital terrain models using survey design software.  

SPECIAL SERVICES (SPEC)  

Spanish N51  
Spanish for Public Personnel  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Designed for those needing basic Spanish conversation and vocabulary in a specific field of work, such as law enforcement, fire safety, health, and education. Includes clear and concise communication for emergency situations. Not applicable to associate degree.  

Survey/Mapping Sciences 119  
Advanced Plane Surveying  
Unit(s): 4  
Class Hours: 48 Lecture, 48 Laboratory total.  
Prerequisite: Survey/Mapping Sciences 118 or possession of a valid certificate as a Land Surveyor-In-Training (LSIT) issued by the state.  
Previous successful completion of Math 160 recommended.  

Survey/Mapping Sciences 150  
Introduction to Geographic Information Systems  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Students will learn to use GIS to store, manage, query and map project data.  
At the conclusion of this class, students will be skilled in the use of a desktop GIS. Ideal for real estate appraisers, market analysts, civil engineers, land surveyors, environmental scientists, geologists, demographers, social scientists and other professionals. No previous GIS experience required. Recommended preparation: familiarity with PC and Windows operating environment.  

Survey/Mapping Sciences 205  
Computer Aided Drafting Fundamentals For Surveyors  
Unit(s): 3  
Class Hours: 48 Lecture total.  
A first course in computer drafting with applications in land surveying specifically intended for students with land surveying training or experience. Recommended preparation: Survey/Mapping Sciences 119.  

Survey/Mapping Sciences 206  
Advanced Computer Aided Drafting for Surveyors  
(Formerly Computer Aided Design Fundamentals for Surveyors)  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Introduction to data collection and processing, coordinate geometry, and the generation of digital terrain models using survey design software. Specifically intended for students with land survey training or experience. Recommended preparation: Survey/Mapping Sciences 119 and previous successful completion of Math 160.  

SURVEY/MAPPING SCIENCES (SURV)  

Survey/Mapping Sciences 118  
Plane Surveying  
Unit(s): 4  
Class Hours: 48 Lecture, 48 Laboratory total.  
History of and careers in surveying. Introduction to survey measurements, distance, direction and elevations with math review. Fundamentals of traverse computations and adjustment. Recording field measurements by hand and electronically. Previous successful completion of Math 160 recommended.  

Survey/Mapping Sciences 119  
Advanced Plane Surveying  
Unit(s): 4  
Class Hours: 48 Lecture, 48 Laboratory total.  
Prerequisite: Survey/Mapping Sciences 118 or possession of a valid certificate as a Land Surveyor-In-Training (LSIT) issued by the state.  
Previous successful completion of Math 160 recommended.  

Survey/Mapping Sciences 150  
Introduction to Geographic Information Systems  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Students will learn to use GIS to store, manage, query and map project data.  
At the conclusion of this class, students will be skilled in the use of a desktop GIS. Ideal for real estate appraisers, market analysts, civil engineers, land surveyors, environmental scientists, geologists, demographers, social scientists and other professionals. No previous GIS experience required. Recommended preparation: familiarity with PC and Windows operating environment.  

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Survey/Mapping Sciences 206  
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Introduction to data collection and processing, coordinate geometry, and the generation of digital terrain models using survey design software. Specifically intended for students with land survey training or experience. Recommended preparation: Survey/Mapping Sciences 119 and previous successful completion of Math 160.  

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Class Hours</th>
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<tbody>
<tr>
<td>Survey/Mapping Sciences 211</td>
<td>Advanced Problems in Surveying I</td>
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<td></td>
<td>Introduction to Global Positioning System</td>
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<td>Survey/Mapping Sciences 222</td>
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<td>Survey/Mapping Sciences 229</td>
<td>Legal Aspects of Land Surveying I</td>
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<td>Survey/Mapping Sciences 230</td>
<td>Legal Aspects of Land Surveying II</td>
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<td>Survey/Mapping Sciences 261</td>
<td>Introduction to GPS, Global Positioning System</td>
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<td>TV/VIDEO COMMUNICATIONS (TELV)</td>
<td>TV/Video Communications 100</td>
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<td>Introduction to Electronic Media: TV, Radio, Film, and the Internet</td>
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<td>TV/Video Communications 101</td>
<td>TV and Society: A Visual History</td>
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<td>TV/Video Communications 103</td>
<td>History of Film to 1945</td>
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<td>TV/Video Communications 104</td>
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<td>TV/Video Communications 105</td>
<td>Mass Media and Society</td>
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<td>TV/Video Communications 120</td>
<td>Beginning Writing for TV, Film, and Corporate Video</td>
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<td>TV/Video Communications 121</td>
<td>Intermediate Writing for TV, Film, and Corporate Video</td>
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<td>TV/Video Communications 243</td>
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<td>TV/Video Communications 298</td>
<td>TV/Video Communications Practicum</td>
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</tbody>
</table>

*CSU* indicates courses approved for transfer to the California State University system.
 THEATRE ARTS (THEA)

Theatre Arts 100
Introduction to Theatre
Unit(s): 3
Class Hours: 48 Lecture total.
An introduction to the art and concepts of theatre through a study of modern and historical theories of dramatic structure, playwriting, directing, design, and acting. Attendance at live theatre required. CSU/UC

Theatre Arts 101
Acting and Acting - An Historical Perspective
Unit(s): 3
Class Hours: 48 Lecture total.
A study of acting theories, history, techniques, and celebrated actors, from the Greeks through contemporary ideologies, framed within the context of Western and non-Western theatre traditions. Attendance at selected theatre performances required. Fee charged for tickets. May be repeated. CSU/UC

Theatre Arts 103
History of Film to 1945
Unit(s): 3
Class Hours: 48 Lecture total.
A survey course exploring film as an art form and developing appreciation of historical, artistic and technical advances from 1890s to 1945. (Same as Television/Video Communications 103.) CSU/UC

Theatre Arts 104
History of Film From 1945 to Present
Unit(s): 3
Class Hours: 48 Lecture total.
A lecture/visual aids course exploring film as an art form and developing appreciation of historical, artistic and technical advances. (Same as Television/Video Communications 104.) CSU/UC

Theatre Arts 110
Acting Fundamentals
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
A study of acting involving the development of acting techniques, styles and disciplines. Provides the student with theory and practical experience with varied characterizations. Emphasizes individual growth and acquired skills necessary to the acting craft. May be repeated. CSU/UC

Theatre Arts 111
Intermediate Acting
Unit(s): 3
Class Hours: 48 Lecture, 16 Laboratory total.
Prerequisite: Theatre Arts 110.
Further study in the art of acting for the stage, investigating in-depth character study, role portrayal, special problems, and personal technique. Acting skills developed through use of exercises, monologues, and scenes from contemporary theatre. May be repeated. CSU/UC

Theatre Arts 118
Fundamentals of Scene Study
Unit(s): 2
Class Hours: 32 Lecture, 32 Laboratory total.
Prerequisite: Theatre Arts 110.
A continued study for the beginning actor in the preparation and presentation of scenes from contemporary drama. Students prepare scenes with partners for performance and critique. Recommended for acting majors. May be repeated. CSU/UC

Theatre Arts 242
Intermediate Television Commercial Acting Workshop
Unit(s): 1
Class Hours: 16 Lecture, 16 Laboratory total.
Prerequisite: Television/Video Communications 143 or Theatre Arts 146.
Continued techniques in acting for commercials. On camera work will include handling of product, use of food and hand props, advanced copy presentation, and in-depth character development. Study of commercial job market including voice over, industrial films, and print. (Same as Television/Video Communications 243.) May be repeated. CSU

WATER UTILITY SCIENCE (WATR)

Water Utility Science 041
Hot Topics: Regulatory Updates
Unit(s): 0.2
Class Hours: 8 Lecture total.
Regulatory updates in the Safe Drinking Water Act, Title 22, Enhanced Coagulation, Disinfectants/DBP’s Rule, Clean Water Act, and NPDES compliance. Session will aid students in obtaining mandated California Department of Public Health contact-hours. Possession of a T2 or D2 license recommended. May be repeated. Grade: Pass/No Pass Only.

Water Utility Science 042
Hot Topics: Managerial Issues Updates
Unit(s): 0.2
Class Hours: 8 Lecture total.
Managerial styles, safe-working environment, project administration, budgeting, salary comparison, public support, water quality compliance, and other current topics. Qualifies for California Department of Public Health contact-hours. Possession of a T2, D2 license is recommended. May be repeated. Grade: Pass/No Pass Only.

Water Utility Science 043
Hot Topics: Operational Updates
Unit(s): 0.2
Class Hours: 8 Lecture total.
Focuses upon practical operational criteria such as backflow protection techniques, valve replacement procedures, unidirectional flushing, treatment optimization, and other topics. Qualifies for California Department of Public Health contact-hours to renew operators’ license. Possession of a T2 or D2 license recommended. May be repeated. Grade: Pass/No Pass Only.

Water Utility Science 044
Hot Topics: Maintenance and Security Updates
Unit(s): 0.2
Class Hours: 8 Lecture total.
Corrosion control, coatings, shutdown/repair criteria, shutdown/repair schedules and other topics. Qualifies for mandated California Department of Public Health contact-hours. Possession of a T2 or D2 license recommended. May be repeated. Grade: Pass/No Pass Only.

Water Utility Science 045
Pump Maintenance Workshop
Unit(s): 1
Class Hours: 16 Lecture total.
This course is designed for students to recognize various types of pumps and the associated maintenance procedures required to extend a pump’s usefulness. The course will include: pump recognition, basic design, efficiencies, application, and commonly used hands-on maintenance techniques. May be repeated. Grade: Pass/No Pass Only.

Water Utility Science 049
Reservoir Management and Water Sampling Technique
Unit(s): 0.2
Class Hours: 8 Lecture total.
Review information concerning reservoir stabilization, maintenance, water quality control, and approved DHS sampling procedures. May be repeated for Department of Health contact-hour requirements every three-years. Grade: Pass/No Pass Only.
Water Utility Science 050  
**Water Mathematics and Hydraulics**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Practical application of mathematics to determine areas, volumes, pressure, rate of flow, velocity, thrust, basic hydraulics, horsepower, and chemical dosage used in utility operation. Completion of Mathematics N06 or equivalent skills as measured by the Math Level 1 Exam recommended. May be repeated. Grade: Pass/No Pass Only.

Water Utility Science 056  
**Treatment Test Preparation**  
Unit(s): 0.2  
Class Hours: 8 Lecture total.  
Review information provided in various classes in the program and prepare students to take and successfully pass the California Department of Health Services Operator T1 and T2 examinations. May be repeated. Grade: Pass Only.

Water Utility Science 057  
**Water Distribution Test Preparation**  
Unit(s): 0.2  
Class Hours: 8 Lecture total.  
Review information provided in various classes in the program and prepare students to take and successfully pass the California Department of Health Services Operator D1 and D2 examinations. May be repeated. Grade: Pass Only.

Water Utility Science 101  
**Water Treatment Fundamentals**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Prerequisite: Water Utility Science 050 or concurrent enrollment. *If currently enrolled in Water Utility Science 050 please contact SCC Admissions at 714.628.4901  
A specialized course including conventional treatment processes, facility maintenance, water sources, monitoring, sampling and water quality standards. Primary course for Calif. Department of Public Health, Water Treatment T2 and T3 examinations.  
CSU

Water Utility Science 102  
**Advanced Water Treatment**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Public health aspects of water supply, water quality control, chemical treatment, sedimentation, filtration, ion exchange, disinfection. Operation and maintenance of water treatment unit processes. Preparation for Water Treatment Examinations. Completion of Water Utility Science 050 and 101 recommended.  
CSU

Water Utility Science 103  
**Water Chemistry and Bacteriology**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Water chemistry and water bacteriology as applied to control of water treatment processes, water conditioning, and protection of water quality. Laboratory demonstrations in techniques of physical, chemical, and bacteriological examination of water.  
CSU

Water Utility Science 104  
**Electrical Wiring and Controls for Operators**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Theoretical and practical skills needed to perform preventive maintenance and minor repair of simple electrical wiring and control systems used in and around water and wastewater pumping systems.  
CSU

Water Utility Science 106  
**Backflow Prevention Devices**  
Unit(s): 2  
Class Hours: 16 Lecture, 32 Laboratory total.  
Theory, testing, and maintenance of backflow preventive devices in water systems. Prepares the journeyman plumber, plant maintenance operator, and water utility operator to become a certified tester in Orange County. Prepares for American Water Works Backflow Prevention test. May be repeated.  
CSU

Water Utility Science 107  
**California Water Resources**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Introduction to water law and rights, California water history, politics lore, and water supply agencies serving Orange County. Includes hydrologic cycle, sea water intrusion, protection of wells and reservoirs, flood control, industrial water use, pollution/contamination of ground water supplies, and the conservation of water.  
CSU

Water Utility Science 108  
**Cross Connection Control Specialist**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Introduction and methodology of establishing a cross connection control program. Includes local, state and federal regulations. Prepares students for American Water Works Association Cross Connection Control Specialist examination.  
CSU

Water Utility Science 109  
**Water Distribution Systems**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Prerequisite: Water Utility Science 050 or concurrent enrollment. *If currently enrolled in Water Utility Science 050 please contact SCC Admissions at 714.628.4901  
CSU

Water Utility Science 111  
**Wastewater Treatment Plant Operations**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Wastewater treatment, including preliminary, primary and secondary treatment processes. Successful completion provides student with 48 CWEA contact hours and 8 SWRCB educational points. Prepares students for SWRCB Wastewater Treatment Plant Operator exam Grades 1 and 2.  
CSU

Water Utility Science 112  
**Wastewater Treatment Plant Processes**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Secondary and advanced treatment, disinfection and chlorination, reclamations of wastewater, and laboratory procedures. Preparation for SWRCB Wastewater Treatment Plant Operator exam Grades 3, 4, and 5. Successful completion provides 48 CWEA contact hours and 8 SWRCB educational points.  
CSU

Water Utility Science 116  
**Collection Systems**  
Unit(s): 3  
Class Hours: 48 Lecture total.  
Sewer construction, inspection and testing, cleaning methods, safety, elementary hydraulics, pipeline repair, equipment maintenance, communications, and record keeping. Successful completion provides student with 48 CWEA contact hours and 4 SWRCB educational points. Preparation for CWEA Wastewater Collection System exam all Grades.  
CSU
Water Utility Science 131
Water Conservation Practitioner (Formerly Water Conservation Practitioner Workshop)
Unit(s): 3
Class Hours: 48 Lecture total.
Theoretical and practical training in applied water use efficiency. Includes residential, commercial, and landscape customers, water uses, budgets, demand management, water audits, best management practices, rate structures, program design and management. Preparation for AWWA Grade 1 and 2 Water Conservation Practitioner certification. **CSU**

Water Utility Science 135
Chlorine Workshop
Unit(s): 1
Class Hours: 16 Lecture total.
Chlorine properties, containment, and safe handling procedures for operating personnel. Theoretical and practical methods for handling and feeding into public water supplies as required by various private and governmental agencies will be stressed. Grade: Pass/No Pass Only. **CSU**

Water Utility Science 204
Water Reclamation and Reuse
Unit(s): 3
Class Hours: 48 Lecture total.
Fundamentals of reclaimed water, includes case studies and history of reclaimed water development. Planning, design and construction of reclaimed distribution systems. Problems regarding marketing, legislation and regulations for reclaimed water. Includes microbiology and health/safety issues. **CSU**

Water Utility Science 208
Pumps and Pumping
Unit(s): 3
Class Hours: 48 Lecture total.
A progressive course concerning the basic theory, operation, and repair of pumping systems. Assists operators and technicians in the design, selection, installation and maintenance of centrifugal and positive displacement pumps. Focus will be placed upon pump and system efficiencies. **CSU**

Water Utility Science 210
Advanced Water Distribution
Unit(s): 3
Class Hours: 48 Lecture total.
Pipe types and uses, reservoirs, maps, records, and applied hydraulics as applied to distribution systems. Preparation for Distribution Grades II, III and IV Water Distribution Operator certification by the California Department of Public Health. **CSU**

**WOMEN’S STUDIES (WMNS)**

Women’s Studies 101
Introduction to Women’s Studies
Unit(s): 3
Class Hours: 48 Lecture total.
A multicultural survey of social trends, issues, opportunities, and topics of special interest to women. Discussion includes sex, sex role stereotyping, family problems, work, law, gender equity, physical and mental health, feminism, rape, and women in arts, sciences, history and business. **CSU/UC**

Women’s Studies 102
Women in America: Work, Family, Self
Unit(s): 3
Class Hours: 48 Lecture total.
An examination of women’s roles in America. Emphasis on employment, family structures, and personal development. Topics include: historical patterns, socialization, opportunities, sexism, identity, growth, law, unionization, sexual harassment, media influence, family pressures, child care, guilt, stress. **CSU/UC**

Women’s Studies 201
Contemporary Women’s Issues
Unit(s): 3
Class Hours: 48 Lecture total.
An examination of issues confronting women in modern America. Topics include socialization, discrimination, ideologies, health, sexuality, love, family, family violence, alternative lifestyles, work, political involvement, law, crime, war, rape, media images, feminism, and education. **CSU/UC**
### Santiago Canyon College—Continuing Education Instructional Calendar 2011–2012

#### Fall Semester 2011
- **August 22 – 26**: Faculty projects
- **August 29**: Instruction begins
- **September 5**: Labor Day — holiday
- **November 11**: Veterans’ Day — holiday
- **November 24 – 26**: Thanksgiving — holiday
- **December 17**: Instruction ends

#### Spring Semester 2012
- **January 13**: Instruction begins
- **January 16**: King’s Birthday — holiday
- **February 17 – 18**: Lincoln’s Birthday — holiday
- **February 20**: President’s Day — holiday
- **March 30**: Cesar Chavez Day — holiday
- **April 9 – 14**: OEC Spring recess
- **May 28**: Memorial Day — holiday
- **June 1**: OEC Commencement
- **June 2**: Instruction ends

#### Summer Session 2012
- **June 18 – 22**: Faculty projects
- **July 4**: Independence Day — holiday

#### College Credit Classes Instructional Calendar 2011–2012

#### Fall Semester 2011
- **August 15 – 17**: Faculty projects
- **August 18 – 19**: Common college flex day
- **August 22**: Instruction begins
- **September 2**: Last date to drop with enrollment fee refund (semester-length courses)
- **September 5**: Labor Day — holiday
- **September 23**: Last date to file Pass/No Pass option (semester-length courses)
- **October 14**: Deadline to submit Petitions for Graduation and Certificates
- **November 11**: Veterans’ Day — holiday
- **November 13**: Last date to drop semester-length courses with a “W” grade
- **November 24 – 27**: Thanksgiving — holiday
- **December 11**: Instruction ends
- **December 12 – January 2, 2012**: Winter break

#### Spring Semester 2012
- **January 17 – 18**: Faculty projects
- **January 19 – 20**: Common college flex days
- **January 23**: Instruction begins
- **February 5**: Last date to drop with enrollment fee refund (semester-length courses)
- **February 17 – 18**: President's Day — holiday
- **February 20**: Last date to file Pass/No Pass option (semester-length courses)
- **March 2**: Deadline to submit Petitions for Graduation and Certificates
- **March 19 – 25**: Spring recess
- **March 30**: Cesar Chavez Day — holiday
- **April 22**: Last date to drop semester-length classes with “W” grade
- **May 18**: Commencement — Santiago Canyon College
- **May 20**: Instruction ends
- **May 28**: Memorial Day — holiday

#### Summer Session 2012
- **June 4**: Instruction begins in June
- **July 4**: Independence Day — holiday
- **August 12**: Instruction ends by August 12

* OEC Spring recess dates may be adjusted to correspond to unified school district instructional calendar.

** Beginning/ending date could be adjusted.
Mission Statement
The mission of the continuing education division is to offer a variety of free, noncredit classes, programs, and services that enable students to maximize their potential by acquiring the necessary skills to reach their personal, educational, and vocational goals so that they can benefit from, and contribute to, a changing American society as productive, active members of their communities.

Santiago Canyon College Orange Education Center
1465 North Batavia Street
Orange, CA 92867
714-628-5900

The Santiago Canyon College Orange Education Center is the major facility serving noncredit students in the Orange area. In addition, there are other sites in which instruction is offered. These facilities provide a broad-based program which meets the educational needs of the community. Open entry/open exit classes allow students to register anytime during the school year and provide maximum flexibility in program scheduling.

The Santiago Canyon College Orange Education Center is open Monday through Thursday from 8:00 a.m. to 9:30 p.m., Friday and Saturday from 8:00 a.m. to 2:30 p.m.

Further information may be obtained by calling the Continuing Education Office in Orange at 714-628-5900.

Classroom Instruction
Traditional and individualized, self-paced, classroom instruction is offered in academic, vocational, and basic skills areas. The open entry/open exit format allows flexibility in planning.

Convenient Community Locations
Day and evening community locations make classes conveniently available to all adults in the district.

Weekend Classes
To meet the needs of working adults, continuing education classes are also offered Fridays and Saturdays.

INSTRUCTIONAL PROGRAMS

Adult Basic Education (ABE)
Assists students in strengthening their skills in reading, writing, spelling, mathematics, English usage and grammar. ABE provides students with a strong educational foundation that can be used as a basis for employment preparation, entrance into high school subjects, GED preparation, and college and vocational programs.

In addition, Native Language Basic Skills for Adults assists students in acquiring basic skills in their native language in order to facilitate the transition to beginning English as a Second Language courses. Focuses on reading, math, and writing skills, as well as classroom and community coping skills.

Adult High School Diploma Program
Accommodates adults with varied responsibilities, backgrounds, and needs and who desire to earn a high school diploma. Individualized instruction is provided so that students may take classes that fit their personal schedules, thus enabling them to work and complete high school credits at their own pace. Individualized classes in GED preparation, including practice testing, are also offered at Santiago Canyon College E-307 and the Orange Education Center.

Citizenship
Introduces students to U.S. citizenship and the naturalization process, U.S. history, and government. Prepares students for the U.S. Citizenship and Immigration Services USCIS interview and exam.

English as a Second Language (ESL)
Provides English language instruction for speakers of languages other than English. Offers instruction in beginning levels through intermediate levels. Core classes integrate acquisition of skills in speaking, listening, reading, and writing. Specialty classes focus on further improvement of specific skills, such as conversation, pronunciation, writing, civics or employment skills. Provides certificate programs for successful completion of courses in each level, beginning through intermediate.

Substantial Disabilities
Provides courses to assist adults with substantial disabilities with basic academic skills and independent living skills.

GED Preparation
Prepares adults to pass the GED high school equivalency exam.

Health and Safety Program
Provides courses specifically designed to offer lifelong education to promote the health, safety and well-being of individuals, families and communities.

Parent Education Program
Provides courses which emphasize intellectual, physical, and emotional aspects of parenting.

Career Technical Training Programs
Provides employment preparation focusing on specific career technical areas and on general workforce development skills. Provides certificate programs in occupational areas with high employment potential.

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ACTIONS AND STUDENT SERVICES

Who May Attend
Persons 18 years of age or older, or high school graduates, are eligible to enroll in continuing education classes. Students currently enrolled in secondary schools who wish to attend continuing education classes may be admitted by special request of the secondary school and approval from continuing education administration.

Where to Register
Santiago Canyon College
Orange Education Center
1465 North Batavia Street
Orange, CA 92867
Phone: 714-628-5900

Schedule of Classes
A schedule of classes is prepared each semester which includes general information, courses offered, hours, locations and rooms. Schedules are available before registration each semester in each of the major continuing education sites and Rancho Santiago Community College District campuses. Registration is ongoing, provided there is space available in classes.

Open Enrollment
Unless specifically exempted by statute, every course wherever offered and maintained by the district is fully open to enrollment and participation by any person who has qualified as a continuing education student, provided there is space available in classes.

Class Discontinuance Policy
Any class which does not have a total of at least 20 students enrolled by the beginning of instruction may be discontinued. Any class which does not maintain satisfactory attendance may be discontinued at anytime during the term.

Student Identification Card
Each student may obtain a student identification card upon request for a nominal fee. For more information, please call SCC Cashiers Office 714-628-4727.

Textbooks and Supplies
Textbooks are available for purchase by students at the OEC Bookstore. A complete list of textbooks, including cost, required for each class is posted at the bookstore entrance. Supplementary books and supplies are also available. For bookstore hours, please call 714-628-5924.

Testing
A wide variety of academic, aptitude, vocational, interest and other assessments are provided to assist the adult in educational and career planning. Diagnostic assessment tests are administered to advise placement for courses in English as a Second Language, Adult Basic Education, and High School Subjects.

Counseling and Guidance
Each Continuing Education student is provided with the unique opportunity to benefit from individualized counseling and guidance designed to help students improve the quality of their lives. Counselors are available to provide academic, career, and personal counseling in a confidential office setting.

Students may seek counseling for many reasons, including planning of educational objectives, obtaining information about employment and job skills, resolving personal and family problems, examining aptitudes, interests, and achievement, finding new careers and vocational directions, and learning to adjust in a new country. Students enrolling in courses leading toward a high school diploma must see a counselor upon registering. Counselors are available by appointment or on a walk-in basis. For more information or to arrange an appointment, please call 714-628-5929.

Scholarships
Several scholarships are made available to Continuing Education ESL students and high school graduates. Selection of scholarship recipients will be based upon recommendation of teachers and counselors, financial need, academic excellence, attendance, and minimum enrollment standards. For more information, call the Counseling office at 714-628-5929.

Veterans
Educational opportunities are available for veterans attending continuing education courses for high school credit. Veterans may inquire about qualifications for benefits by speaking to a continuing education counselor or by calling the Veterans’ office at Santa Ana College, 714-564-6050. Veterans must enroll with a Continuing Education counselor each term. For more information about services for Veterans, please see page 11.

Disabled Students Policy
The College will make reasonable accommodations for individuals with disabilities. To request services, contact the office of Disabled Students Programs and Services at 714-628-4860.

Career Services
Career Services are located at the Santiago Canyon College Orange Education Center. Career information, materials, interest inventories and counseling are provided for interested students. Appointments may be made by calling 714-628-5942.

Associated Student Government
The Associated Student Government was established to provide students with government and leadership experience. Opportunities are available to become involved in campus and councils as student representatives. Students will learn first hand about group dynamics and decision making, event programming, and running effective meetings. Additionally, there are student clubs and organizations to join. For more information, please call 714-628-5947.

Child Development
Child development program centers are available at the Santiago Canyon College Orange Education Center. There is no fee for eligible families. Arrangements may be made by calling 714-628-5925.

Parking
No parking fee is required of students at the Orange Education Center or at other continuing education sites in the district.

Transcripts
Students may obtain an official transcript of records by filing in person, or mailing a request to the Admissions and Records Office, Orange Education Center, 1465 N. Batavia Street, Orange, CA 92867. The first two in person transcripts will be issued without charge, thereafter, a $3.00 charge will be assessed for each additional transcript. All official transcripts are copies of the student’s permanent record in the Office of Admissions and Records. Only records prepared and issued directly from that office will be considered official or certified for accuracy.

StUDENT SeRVISeS

Veterans

Disabled Students Policy

Career Services

Associated Student Government

Child Development

Parking

Transcripts
POLICIES GOVERNING STUDENTS

A. Attendance

Students are expected to attend all class meetings. Students who are enrolled but absent on the first class session may be dropped. A student may also be dropped for excessive absences.

B. Standards of Student Conduct

Guidelines for Student Conduct are set forth in the California Education Code, California Administrative Code, Title V, policies of the Board of Trustees, and all civil and criminal codes. Students enrolling in district educational programs assume an obligation to obey state law and district rules and regulations governing the conduct of students. For the complete guidelines for Student Conduct, see page 27-28.

C. Academic Honesty

Students at Santiago Canyon College are expected to be honest and forthright in their academic endeavors. To falsify the results of one’s research, to steal the words or ideas of another, or to cheat on an examination, corrupts the essential process by which knowledge is advanced. Academic dishonesty is seen as an intentional act of fraud, in which a student seeks to claim credit for the work or efforts of another without authorization, or uses unauthorized materials or fabricated information in any academic exercise. We as an institution, also consider academic dishonesty to include forgery of academic documents, intentionally impeding or damaging the academic work of others, assisting other students in acts of dishonesty or coercing students into acts of dishonesty. For procedures see page 21.

D. Grading Standards/Procedures

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Superior</td>
<td>4 per unit</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
<td>3 per unit</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2 per unit</td>
</tr>
<tr>
<td>D</td>
<td>Below Average</td>
<td>1 per unit</td>
</tr>
<tr>
<td>F</td>
<td>Fail</td>
<td>0 (but counted in GPA)</td>
</tr>
<tr>
<td>CIP</td>
<td>In Progress</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>Credit</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>0</td>
</tr>
</tbody>
</table>

The purpose of these complaint procedures is to resolve differences as fairly and expeditiously as possible while preserving the rights of students and staff members.

1. Definitions
   Days: number of days refers to the days when the District offices are open.
   Committee: Continuing Education Student Complaint Committee.

2. Procedure
   a. Students shall first confer with the staff member who took action or made the ruling to which they object no later than ten days following the event which prompted the complaint.
   The Area Dean of Instruction and Student Services or designee will assist the student in arranging an appointment with the staff member.
   b. If the difference is not satisfactorily resolved, the student shall confer with the staff member's supervisor.
   The Area Dean of Instruction and Student Services or designee will assist the student and staff member's supervisor.
   c. If the complaint is unresolved, the student may file a written statement setting forth the nature of the complaint on the prescribed form with the Area Dean of Instruction and Student Services no later than ten days after conferring with the staff member's supervisor.
   The complaint form shall be completed in full and shall include a full description of the complaint, times, dates and pertinent facts, and the remedy sought by the student.
   A Student Complaint-Staff Response form will be sent to both the staff member and supervisor for completion.
   e. The Area Dean of Instruction and Student Services shall forward the completed forms to the Continuing Education Student Complaint Committee chairperson for review and recommendation.
The committee shall have the power to make an appropriate investigation of the complaint and shall state the findings and make a recommendation.

f. If the complaint is sustained by the committee, it will recommend appropriate action for relief of the complaint and communicate this in writing to the staff member to whom the complaint was directed. If the staff member accepts the recommended action, and if the student who filed the complaint is satisfied with the action, the complaint shall be considered resolved and closed.

g. If the findings of the committee do not sustain the complaint, the committee shall communicate this finding in writing to the student who filed the complaint. If the student accepts this finding, the complaint shall be considered resolved and closed.

h. If no resolution of the complaint is obtained under (f) or (g) above, the Area Dean of Instruction and Student Services shall forward the complaint together with findings of the committee to the Chancellor for review and decision.

i. If this decision does not resolve the complaint in the opinion of the student, the Chancellor shall present the case to the Board of Trustees with the findings and recommendations. If the Board finds that the complaint is invalid, the Chancellor's recommendation shall stand in final resolution. If the Board finds that the complaint is valid, it shall instruct the Chancellor as to how the complaint shall be resolved, and the Chancellor shall implement the Board's decision.

G. High School Diploma Students

1. Grade Reports: In-class progress is reported to the student in a number of ways. Tests are often given to show individual student progress.

2. Cumulative Records: The district will maintain cumulative records on each current high school diploma student. These records may contain pertinent information necessary to aid students in educational planning. Placement tests follow-up, interest inventories, and other data contained in the cumulative record will be available for review by the student upon request.

a. Student Record Confidentiality: Under the guidelines of the Family Educational Rights and Privacy Act of 1974, student records are confidential, and privacy is to be scrupulously maintained.

b. Right to Review and Challenge Records: Under the provisions of the U.S. Department of Health, Education and Welfare, students have the right to inspect and review any of the following files:
   - admissions/records
   - data processing
   - financial aids
   - placement
   - veterans

After review and exploration, students may challenge any information relating to them if they believe information to be inaccurate, misleading, or otherwise in violation of their rights of privacy or other rights. Forms for challenge are available in the Area Dean of Instruction and Student Services office.

3. Residency

a. Definition: Course work taken in any part of the Rancho Santiago Community College District Continuing Education Program.

4. Charge For Transcripts: The first two transcripts will be issued without charge. A charge of $3.00 will be assessed for each additional transcript after the first two.

H. Veterans Benefits Procedures

1. Veterans of the United States Armed Forces enrolling in Continuing Education classes and expecting to receive veterans' benefits, must apply for benefits through the Veterans Office at Santa Ana College 714-564-6050.

2. The Veterans Office will require a copy of the veteran's registration form and the class schedule (completed by a counselor) for verification of enrollment before processing any VA benefit forms.

3. A veteran must be enrolled in, and attending a minimum of 20 credit units, 16 hours per week to be eligible for full time VA educational benefits; 15 credit units, 12 hours per week for 3/4 time benefits and 10 credit units, 9 hours per week for half-time benefits.

4. All VA forms for veterans will be completed processed by the Veterans Office. Veterans are to be referred to the Veterans Office on Santa Ana College for any and all questions, problems, enrollment and attendance certifications for VA benefits.

I. High School Petition Students

Secondary school students who wish to take course work in Rancho Santiago Community College District Continuing Education and have it transferred to another school must present a completed Petition for Registration in order to be considered for admission. Failure to comply fully with all conditions listed on the form may result in the immediate revocation of the petition and dismissal from Continuing Education classes.

1. Grading and Transfer of Credits: Students must satisfactorily complete all course requirements including exams, projects, papers and attendances before credit or grades can be issued. Students are responsible for planning schedules and progress in order to earn credits in time to meet graduation deadlines in other school districts.

2. Conduct: A student's conduct must be productive, responsible and courteous at all times. Unacceptable behavior may result in the immediate revocation of this petition and dismissal from class. Unacceptable behavior includes, but is not limited to, excessive talking, noncompliance with rules, failure to follow instructor directions, falsification of records, cheating or assisting others to cheat, destruction or theft of school property, disruption of classes, violence, or being under the influence of drugs or alcohol.

J. Special Rules, Regulations and Student Obligations

Because of special program characteristics, the following programs must adhere to special rules, regulations and student obligation beyond the Standard Guidelines for Student Conduct.
adopted by the Rancho Santiago Community College District. Students enrolled in any of the following programs are obligated to perform within those special program guidelines in order to maintain class attendance: any community-based organization or governmental agency with which the Rancho Santiago Community College District cooperates in a program offering.

K. Family Education Rights and Privacy
As required under the provisions of the Family Education Rights and Privacy Act of 1974, the Rancho Santiago Community College District will make public without student consent only certain directory information. This information consists of the following: a student’s name; city of residence; a major field; participation in officially recognized activities and sports; weight, height, and age if a member of an athletic team; dates of attendance; degree and awards received; and the most recent previous educational institution or agency attended by the student.

A student may request the Admissions and Records Office to withhold this information. Such request must be in writing and submitted each semester.

L. Right to Review and Challenge Records
Students have the right to inspect and review any of the following files which relate directly to them: 1) admissions/records; 2) data processing; 3) financial aids; 4) placement; 5) veterans; and 6) division/department, if such files are maintained as official files rather than individual files. Request forms are available in the office of the Area Dean of Instruction and Student Services.

After review and explanation, students may challenge any information relating to them if they believe the information to be inaccurate, misleading, or otherwise in violation of their rights of privacy or other rights. Any student wishing to exercise this right of challenge shall inform the Area Dean of Instruction and Student Services, or the Dean-Admissions and Records.

If students wish, copies of materials contained in the files subject to their review will be provided at a cost of $1.00 for the first copy of any document and $.10 for each additional copy.

A log or record of persons or organizations requesting information or receiving information on the student will be maintained in the area where the records are stored.

District staff or other professionals who have a legitimate educational interest such as counseling and carrying out the normal operations of the educational program have access to student records.

Any student has the right to file complaint with the U.S. Department of Health, Education and Welfare concerning alleged failure of the institution to comply with provisions above or Section 438 of the General Provision.

M. Use of Public School Facilities for Adult Classes
1. Alcoholic Beverages and Controlled Substances: Both by policies instituted by local Boards of Education (Garden Grove Unified School District, Orange Unified School District, Rancho Santiago Community College District and Santa Ana Unified School District) and California State Law specifically prohibit possession of alcoholic beverages and controlled substances on school premises at any time, by any person, regardless of age. Regulations also prohibit use of alcoholic beverages at school events, whether on or off the campus, or the appearance at school events while under the influence of alcoholic beverages and/or controlled substances. The penalty for violation of these regulations is immediate suspension from school, followed by expulsion, if imposed by the Board of Trustees. Additional penalties may be imposed by law enforcement agencies.

2. Smoking: Provisions of the Uniform Fire Code, Article 29, Section 29.06, Smoking Activity on School Property, state:

“It shall be unlawful for any person or persons to engage in any smoking activity or to possess any flaming or glowing object or cause to be lighted any substance in any classroom or on school property at any time except in areas authorized by the local Board of Education.”

The only areas authorized for smoking are outside the school buildings in a designated smoking area. There is to be No Smoking by anyone in any of the classrooms at any time. Proper containers are provided in the smoking areas for disposal of cigarettes.
ADULT HIGH SCHOOL DIPLOMA PROGRAM

General Information
Rancho Santiago Community College District offers a comprehensive adult high school diploma program for adults who wish to continue their formal education. The Adult High School Diploma Program at Santiago Canyon College is approved by the California Community Colleges Chancellor's office. Santiago Canyon College is accredited by the Accrediting Commission for the Western Association of Schools and Colleges.

Diplomas are issued by the Rancho Santiago Community College District to students who complete the required course of study and demonstrate proficiency in basic skills. Graduation ceremonies are traditionally held at Santiago Canyon College. Students may complete the diploma program at any time during the year and receive verification of completion of requirements at that time. Courses designed to meet high school graduation requirements are offered in both the traditional classroom setting or in open entry/open exit individualized learning programs. Elective credits may be earned in continuing education classes offered in a wide variety of locations throughout the community as listed in the schedule of classes published each semester.

Counseling and Guidance
Counselors are available for students needing academic, vocational, personal, or financial assistance.

Counselors design programs of study on an individual basis so that students desiring a high school diploma may achieve their individual educational goals. For students transferring from other high school or adult programs, counselors evaluate transcripts to determine which courses meet the general education requirements and/or elective requirements. Counselors advise students of lifelong learning opportunities and assist students with postsecondary vocational and educational planning for degree or certificate programs at Rancho Santiago Community College District.

Registration
The Adult High School Diploma Program is available at the Orange Education Center and SCC Continuing Education Center. Students may obtain a schedule of classes and enroll at any time during the fall, spring, and summer semesters.

To qualify for a high school diploma, the candidate must meet the following requirements:

Effective July 1, 2009
High School Graduation Requirements
Residency Requirement: At least 20 of the 160 required high school credits must be completed in residence at the Rancho Santiago Community College District. Only 5 of the 20 residency credits may be challenged.

Course of Study
The high school diploma requires a total of 160 credits taken from the following:

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>40.0</td>
</tr>
<tr>
<td>(a maximum of 10 credits of reading; must include at least one composition course)</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>20.0</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>20.0</td>
</tr>
<tr>
<td>(must include both a biological and a physical science course)</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>30.0</td>
</tr>
<tr>
<td>(must include U.S. History, American Government, Economics, World History, and World Geography)</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>10.0</td>
</tr>
<tr>
<td>(formerly Fine Arts/Foreign Language)</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>40.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>160.0</td>
</tr>
</tbody>
</table>

Petition for Graduation
A petition for graduation must be completed and submitted soon after the date students complete the diploma requirements.

Proficiency Requirements
Proficiency must be demonstrated in basic skills areas of reading, mathematics, and composition, according to the categories listed below:

A. Reading. All Rancho Santiago Community College District adult high school graduates will be required to demonstrate a minimum eighth grade reading ability as measured by an approved reading proficiency examination.

B. Mathematics. Students will be required to pass an approved district mathematics examination, or the Math Fundamentals II course final.

C. English Composition. Students will be required to pass an approved district composition test or the Composition II course final.

Prior to June 30, 2009
High School Graduation Requirements
Any student who was enrolled in the Adult High School Diploma Program prior to June 30, 2009 may receive a high school diploma based on completion of the curriculum required prior to June 30, 2009 provided the student remains continuously enrolled without a break of more than one primary term subsequent to the Spring 2009 term. At least 15 of the 160 required high school credits must be completed in residence at the Rancho Santiago Community College District.

Policies Governing Sources of Credit
A. Previous Secondary Schools
All credits earned in the 9th, 10th, 11th, and 12th grades recorded on an official transcript will be accepted except physical education credits and credits which are a duplication of course work for which credit was previously granted.

B. Trade or Business Schools
Courses taken in trade or business schools will be evaluated for possible high school credit equivalency. Courses in this category must be approved by the Office of Private Postsecondary Education.

It is the responsibility of the student to provide to the district transcripts, certificates, and/or other records requested for the evaluation and possible awarding of credit.

C. Armed Forces Schools and/or Programs
Credit may be granted for completion of training programs (armed services) and other valid educational experiences provided they have been certified by the United States Armed Forces Institute or by a statement on the service record, and provided they parallel 1) courses usually taught in secondary schools, and 2) vocational training courses with counterparts in civilian life.

This section is to be interpreted as including:

1. Officer and enlisted service school courses;
2. Off-duty classes offered by the armed forces and cooperating local institutions;
3. Correspondence courses offered by the United States Armed Forces Institute, the Marine Corps Institute, the Coast Guard Institute, and cooperating colleges and universities;
4. United States Armed Forces Institute courses and subject examinations. (Authorization for this procedure is contained in Title V, Section 99, part C, of the California Administrative Code.)

D. College Credit Courses

College units to be used for high school credits may be evaluated in a ratio of 3 college units to 10 high school semester periods of credit. The college should be notified in writing when college credits are utilized to meet high school requirements.

College credit equivalency recommended by the American Council on Education guides will be evaluated for high school credit on the same basis as other college credit courses.

E. Correspondence Courses

Courses taken by correspondence will be evaluated for possible high school credit equivalency. Courses in this category must be approved by the Office of Private Postsecondary Education.

It is the responsibility of the student to provide to the district transcripts, certificates, and/or other records requested for the evaluation and possible awarding of credit.

F. Adult School Credit Courses

Courses taken at adult schools will be evaluated for possible high school credit equivalency. Courses in this category must be approved by the California State Department of Education.

No credit will be allowed for physical education courses nor for courses from other adult schools if such courses are designated in the Rancho Santiago Community College District as “no high school credit.”

It is the responsibility of the student to provide to the district transcripts, certificates, and/or other records requested for the evaluation and possible awarding of credit.

G. Work Experience Credit

Students may obtain credit for certain types of full-time work experience, or for work experience that can be related to high school subject matter.

In order to obtain credit for work experience, students must provide written verification from those employers with whom they have worked for at least one year.

The Continuing Education administrators or counselors will evaluate the amount of work experience credit and the area of application. Evaluation will not be made for more credits than is necessary to meet graduation requirements, and which the letters of verification justify. Combined work experience credit and consumer skills task credit may not exceed 40 credits.

Verification of work experience should be obtained by the student, requesting from each employer, on official letterhead stationery, the following information:

1. Dates of employment.
2. Job description.
3. Nature of duties performed, indicating progress to more complex operations justifying a division into beginning and advanced skills.
5. Reason for termination of employment, if applicable.
6. The letter of self-employed students must be accompanied by a copy of the student’s business licence or W-2 form.
7. Upon receipt of verification of all work experience which the student wishes to be considered for credit, evaluation will be made on the following basis:

- Up to 10 credits will be given for the first year of successful work experience.
- Up to 10 additional credits to a maximum of 40 will be granted for each additional full year of employment if the student has made successful progress each year on the job.
- After the initial 10 credits for the first year, student may earn 5 credits for a period of six months employment, provided there is evidence of successful progress.

H. Testing

The district may award a maximum of 80 high school credits on the basis of district approved testing.

1. Mathematics Achievement Test (ITED)

Credit may be earned in mathematics by obtaining a satisfactory score on the math section of the Iowa Tests of Education Development Form X5. No other subtests are accepted for credit purposes. Ten semester credits will be awarded for a raw score of 14, provided these credits are not previously earned math credits. (These 5 credits may be used to satisfy Math Fundamentals II requirements.) Fifteen semester credits will be awarded for a raw score of 20, provided these credits are not a duplication of previously earned math credits. (These 10 credits may be used to satisfy Math Fundamentals II requirements, and 5 elective credits.)

2. Subject Matter Credit by Examination

Credit by examination may be earned only for courses that are specifically designated by the division curriculum committee as courses that are eligible for credit by examination. Information for receiving this credit may be obtained from a counselor in Continuing Education. Only 5 of the 20 residency credits may be challenged.
I. Regional Occupational Program Courses

Credit will be determined upon receipt of an official secondary or community college transcript which indicates credit and grades as appropriate.

Guidelines for issuance of ROP credit when not on a unified school district transcript:

1. RSCCD will accept an official Grade Reporting Sheet from Central County Regional Occupational Program in lieu of a unified school district transcript provided it has a grade and a number of total hours.

2. The amount of credit issued is to be based on 16 clock hours per credit unit.

3. The maximum of 20 units toward electives will be accepted in this manner.

4. Students coming from outside the CCROP will have to validate their credits only through an official school district transcript.

J. High School Diploma Elective Credits

1. Learning Skills Credit

A maximum of 50 credits in Learning Skills will be allowed toward H.S.S. graduation credit in the elective area, including work experience.

2. ESL Credit

Five elective High School Subjects credits can be awarded per class for ESL Intermediate 1, 2, and 3 with at least 72 hours of attendance and passing scores on the ESL Post Tests. The passing scores are 75% for Intermediate 1 and 2 and 70% for Intermediate 3.

3. Adult Basic Education

A maximum of 20 HSS elective credits may be granted when students pass all or parts of the required ABE exit tests.
SANTIAGO CANYON COLLEGE

CERTIFICATE OF COMPLETION PROGRAMS
CARPENTER CERTIFICATE OF COMPLETION (24097)
The Carpenter certificate program prepares students for entry-level employment in companies that manufacture kitchen and bathroom cabinets, music/media furniture, book shelves, and other furniture items using a variety of finishes.

Required courses:
- Vocational Business 859, Introduction to Cabinetry/Furniture Refinishing, Pre-Apprentice
- Vocational Business 953, Fundamentals of Cabinetry/Furniture Refinishing, Pre-Apprentice

COMMERCIAL AND INSTITUTIONAL FOOD PREPARATION CERTIFICATE OF COMPLETION (24093)
The Commercial and Institutional Food Preparation certificate program prepare students for employment in commercial and institutional food kitchens, especially the restaurant industry, by providing knowledge and skills in: hygiene, sanitation, storage, nutrition, and food service administration.

Required courses:
- Vocational Food 010, Institutional Food Preparation
- High School Subjects 338, Workforce Preparation

COMMERCIAL TEXTILE WORKER CERTIFICATE OF COMPLETION (24146)
Completion of the Commercial Textile Worker certificate program will prepare students for entry-level employment in the commercial textile industry. Students will learn different types of fabrics, seam finishes, garment styles, and garment construction and repair.

Required courses:
- Vocational Clothing 483, Introduction Commercial Sewing
- Vocational Clothing 477, Fundamentals Commercial Sewing

CONSTRUCTION LABORER CERTIFICATE OF COMPLETION (24037)
The Construction Laborer certificate program prepares students for entry-level employment in the construction industry by providing basic knowledge and skills in power tools, commercial painting and welding.

Required courses:
- Vocational Construction 857, Introduction to Construction Technology Safety
- Vocational Construction 860, Construction Technology, Pre-Apprentice
- Vocational Construction 865, Introduction to Painting
- Vocational Construction 608, Introduction to Welding, Pre-Apprentice
- Vocational Construction 611, Fundamentals of Welding, Pre-Apprentice

ESL LITERACY CERTIFICATE OF COMPLETION (24230)
The curriculum for the ESL Literacy Certificate develops the ability of non-English speaking students in basic literacy skills, including letter and number recognition/production, simple personal information, and basic oral communication in preparation for enhanced job opportunities.

Requirements for the certificate:
Course | Hours
--- | ---
Adult Basic Education 011, Native Language Basic Skills for Adults | 216
English as a Second Language 399, ESL Literacy | 216
English as a Second Language 400, Transition ESL | 216
TOTAL | 648

ESL TRANSITION CERTIFICATE OF COMPLETION (24197)
The curriculum for the ESL Transition Certificate develops the ability of non-English speaking students in basic listening comprehension and oral production skills in preparation for enhanced job opportunities.

Requirements for the certificate:
- English as a Second Language 400, Transition ESL
- English as a Second Language 606, Interactive Language Training

ESL BEGINNING 1 CERTIFICATE OF COMPLETION (24157)
The curriculum for the ESL Beginning 1 Certificate develops the ability of non-English speaking students in basic listening, reading, writing, and conversation skills in preparation for enhanced job opportunities.

Requirements for the certificate:
- English as a Second Language 410, Beginning ESL 1
- English as a Second Language 606, Interactive Language Training

ESL BEGINNING 2 CERTIFICATE OF COMPLETION (24158)
The curriculum for the ESL Beginning 2 Certificate develops the ability of limited-English speaking students in basic writing, oral conversation, and reading comprehension skills in preparation for enhanced job opportunities.

Requirements for the certificate:
- English as a Second Language 420, Beginning ESL 2
- English as a Second Language 606, Interactive Language Training

ESL BEGINNING 3 CERTIFICATE OF COMPLETION (24047)
The curriculum for the ESL Beginning 3 Certificate develops the ability of limited-English speaking students to participate in and sustain simple conversations and to read and write short passages in preparation for enhanced job opportunities.

Requirements for the certificate:
- English as a Second Language 430, Beginning ESL 3
- English as a Second Language 606, Interactive Language Training
**ESL BEGINNING COMMUNICATION CERTIFICATE OF COMPLETION (24267)**

The curriculum for the ESL Beginning Communication Certificate develops the ability of non-English speaking students in language use and non-verbal communication skills in preparation for enhanced job opportunities.

Requirements for the certificate:

- English as a Second Language 530, American English Pronunciation
- English as a Second Language 570, Conversation 1
- English as a Second Language 606, Interactive Language Training

**ESL BEGINNING MULTILEVEL CERTIFICATE OF COMPLETION (24232)**

The curriculum for the ESL Beginning Multilevel Certificate develops the ability of limited-English speaking students to perform a variety of simple listening, speaking, reading and writing tasks in preparation for enhanced job opportunities.

Requirements for the certificate:

- English as a Second Language 440, Beginning 1-3 Multilevel
- English as a Second Language 606, Interactive Language Training

**ESL CIVICS CERTIFICATE OF COMPLETION (24191)**

The curriculum for the ESL Civics Certificate enhances the English language skills of limited-English speaking students while preparing them for the United States Citizenship Exam and civic participation.

Requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English as a Second Language 120, ESL Civics</td>
<td>144</td>
</tr>
<tr>
<td>English as a Second Language 430, Beginning ESL 3</td>
<td>216</td>
</tr>
<tr>
<td>TOTAL</td>
<td>360</td>
</tr>
</tbody>
</table>

**ESL INTERMEDIATE 1 CERTIFICATE OF COMPLETION (24192)**

The curriculum for the ESL Intermediate 1 Certificate develops the ability of limited-English speaking students in the integrated skills of interpersonal and basic academic communication in preparation for enhanced job opportunities and transition to academic studies.

Requirements for the certificate:

- English as a Second Language 460, Intermediate ESL 1
- English as a Second Language 606, Interactive Language Training

**ESL INTERMEDIATE 2 CERTIFICATE OF COMPLETION (24193)**

The curriculum for the ESL Intermediate 2 Certificate develops the ability of limited-English speaking students in written, interpersonal and academic communication skills in preparation for enhanced job opportunities and transition to academic studies.

Requirements for the certificate:

- English as a Second Language 470, Intermediate ESL 2
- English as a Second Language 606, Interactive Language Training

**ESL INTERMEDIATE 3 CERTIFICATE OF COMPLETION (24194)**

The curriculum for the ESL Intermediate 3 Certificate develops the ability of limited-English speaking students in complex written, interpersonal and academic communication skills in preparation for enhanced job opportunities and transition to academic studies.

Requirements for the certificate:

- English as a Second Language 480, Intermediate ESL 3
- English as a Second Language 606, Interactive Language Training

**ESL INTERMEDIATE COMMUNICATION CERTIFICATE OF COMPLETION (24195)**

The curriculum for the ESL Intermediate Communication Certificate develops the ability of limited-English speaking students in non-verbal communication skills and the use of formal and colloquial language in preparation for enhanced job opportunities and transition to academic studies.

Requirements for the certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English as a Second Language 570, Conversation 1</td>
<td>72</td>
</tr>
<tr>
<td>English as a Second Language 580, Conversation 2</td>
<td>72</td>
</tr>
<tr>
<td>TOTAL</td>
<td>144</td>
</tr>
</tbody>
</table>

**ESL INTERMEDIATE MULTILEVEL CERTIFICATE OF COMPLETION (24234)**

The curriculum for the ESL Intermediate Multilevel Certificate develops the ability of limited-English speaking students in a variety of advanced written, interpersonal, and academic communication tasks in preparation for enhanced job opportunities and transition to academic studies.

Requirements for the certificate:

- English as a Second Language 500, Intermediate 1-3 Multilevel
- English as a Second Language 606, Interactive Language Training
ESL INTERMEDIATE WRITING
CERTIFICATE OF COMPLETION (24196)

The curriculum for the ESL Intermediate Writing Certificate develops the ability of limited-English speaking students in composition and other essential written communication skills in preparation for enhanced job opportunities and transition to academic studies.

Requirements for the certificate:

English as a Second Language 010, ESL Writing
English as a Second Language 392, Writing and Computers: Developing a School Publication

VOCATIONAL ESL CERTIFICATE OF COMPLETION (24198)

The curriculum for the Vocational English as a Second Language Certificate develops the English language and workplace skills of limited-English speaking students.

Requirements for the certificate:

English as a Second Language 510, English for Work 1
English as a Second Language 520, English for Work 2

VOCATIONAL ESL EMPLOYABILITY
CERTIFICATE OF COMPLETION (24199)

The curriculum for the Vocational English as a Second Language Certificate enhances the language skills of limited-English speaking students and develops employability skills for the workplace.

Requirements for the certificate:

English as a Second Language 600, Personal Discovery for Employability
English as a Second Language 606, Interactive Language Training

SECONDARY EDUCATION/GED PREPARATION
CERTIFICATE OF COMPLETION (24467)

Courses in ABE lead to the GED Test Preparation class which prepares students for the reading, writing, and math skills necessary for the achievement of the official GED Certificate.

Courses:

Adult Basic Education 009, ABE Skills
Adult Secondary Education: Secondary Subjects GED Test Preparation 031, GED Test Preparation

ENGLISH:

Number of Credits required: 40

Required courses:

Must include one of the following composition courses:
High School Subjects English 083, Composition 1
High School Subjects English 084, Composition 2
High School Subjects English 085, Composition 3

Electives:

High School Subjects English 050, English Through Literature 11B
High School Subjects English 051, English Through Literature 12B
High School Subjects English 052, English Language Arts 1
High School Subjects English 053, English Language Arts 2
High School Subjects English 062, Speech and Debate 1A
High School Subjects English 063, English Through Literature 11A
High School Subjects English 064, English Through Literature 12A
High School Subjects English 066, English Fundamentals 2
High School Subjects English 067, English Fundamentals 3
High School Subjects English 068, English Fundamentals 4
High School Subjects English 070, Short Story
High School Subjects English 072, Poetry
High School Subjects English 076, The Novel
High School Subjects English 080, Literature Brought to Life
High School Subjects English 083, A/P English 1A
High School Subjects English 098, Building Vocabulary 3
High School Subjects English 201, Survey of English 1
High School Subjects English 202, Survey of English 2
High School Subjects English 203, Survey of English 3
High School Subjects English 204, Survey of English 4

*High School Subjects Reading 010, Individualized Instruction in Reading
*High School Subjects Reading 089, Reading Proficiency Development
*High School Subjects Reading 090, Reading Improvement
*High School Subjects Reading 093, Building Reading Skills 1
*High School Subjects Reading 094, Building Reading Skills 2

*Note: Maximum 10 credits in reading allowed towards English credit

NATUREAL SCIENCES:

Number of Credits required: 20

Must include one of the following biological science courses:
High School Subjects Science 189, Life Science
High School Subjects Science 193, Basic Science 2

Must include one of the following a physical science courses:
High School Subjects Science 192, Basic Science 1
High School Subjects Science 190, Physical Science
High School Subjects Science 188, Earth Science
High School Subjects Science 182, Physiology 1A
High School Subjects Science 183, Physiology 1B

Electives:

High School Subjects Science 100, Chemistry 1B
High School Subjects Science 184, Chemistry 1A
High School Subjects Science 196, Health Science
SOCIAL AND BEHAVIORAL SCIENCES:
Number of Credits required: 30
Must include one of the following US History courses:
High School Subjects Social Science 218, US History 1
High School Subjects Social Science 219, US History 2

Must include the following American government course:
High School Subjects Social Science 222, Government 1:
United States Federal Government and Politics

Must include the following Economics course:
High School Subjects Social Science 215, Introduction to Economics

Must include one of the following World Geography courses:
High School Subjects Social Science 224, World Geography 1A
High School Subjects Social Science 225, World Geography 1B

Must include the following World History course:
High School Subjects Social Science 228, World History

Electives:
High School Subjects Social Science 216, World Cultures 1A
High School Subjects Social Science 217, World Cultures 1B
High School Subjects Social Science 223, Government 2:
California State/Local Government

HUMANITIES:
Number of Credits required: 10
Electives:
High School Subjects Arts 828, Understanding America Through Art
High School Subjects Arts 837, The Film as Art
High School Subjects Arts 845, Drawing and Painting 1
High School Subjects Arts 846, Drawing and Painting 2
High School Subjects Arts 150, Mass Media
High School Subjects Arts 500, Introduction to Theatre Arts

MATHEMATICS:
Number of Credits required: 20
Electives:
High School Subjects Math 156, Essential Mathematics 1
High School Subjects Math 157, Essential Mathematics 2
High School Subjects Math 159, Math Fundamentals 2
High School Subjects Math 163, Algebra 1A
High School Subjects Math 164, Algebra 1B
High School Subjects Math 165, Algebra 2A
High School Subjects Math 166, Algebra 2B
High School Subjects Math 167, Geometry A
High School Subjects Math 168, Geometry B
High School Subjects Math 101, AP Calculus Preparation 1A
High School Subjects Math 102, AP Calculus Preparation 1B
High School Subjects Math 154, Pre-Algebra A
High School Subjects Math 155, Pre-Algebra B
High School Subjects Math 161, Pre-Calculus with Trigonometry 1A
High School Subjects Math 180, Pre-Calculus with Trigonometry 1B

ELECTIVE COURSES:
Number of Credits required: 40
Adult Basic Education 009, ABE Skills
High School Subjects 032, Individualized Instruction
High School Subjects 338, Workforce Preparation
High School Subjects 770, Orientation to College (1.5 credits)
High School Subjects 050, Basics of Leadership Part 1
High School Subjects 202, Basics of Leadership Part 2
High School Subjects 030, Study Skills for Academic Success
High School Subjects 005, Introduction to Child Development
High School Subjects 501, Spanish 1A

High School Subjects 201, Spanish 1B
High School Subjects 505, Spanish 2A
High School Subjects 510, Spanish 2B

*Note: Elective courses may include other courses not already taken for credit.

MEDICAL BILLING
CERTIFICATE OF COMPLETION (24052)
The Medical Billing certificate program is designed to give students the necessary knowledge and skills to hold a medical billing position. Students will have practical experience using computers and patient billing software, be familiar with the rules and guidelines of health care plans in order to submit proper documentation for appropriate reimbursement of services rendered, and they will have the necessary customer service skills to succeed in this field.

Required courses:
Vocational Business 119, Introduction to Keyboarding and Basic Windows
Vocational Business 121, Introduction to Computer Software Applications
Vocational Business 080, Introduction to Medical Billing
Vocational Business 012, Workforce Readiness

EXECUTIVE SECRETARY / ADMINISTRATIVE ASSISTANT
CERTIFICATE OF COMPLETION (24421)
The Executive Secretary/Administrative Assistant certificate program is designed to give students the necessary knowledge and skills from diversified training, including technology, and background to hold high-level administrative support positions of responsibility in the workplace. Students will be prepared to conduct research, prepare reports, and perform clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings.

Required courses:
Vocational Business 119, Introduction to Keyboarding and Basic Windows
Vocational Business 258, Navigating the Internet
Vocational Business 096, Introduction to Use of Digital Cameras
Vocational Business 097, Introduction to Personal Commerce on the Internet
Vocational Business 260, Introduction to Word Processing using MS Word
Vocational Business 262, Introduction to Spreadsheets using MS Excel
Vocational Business 261, Introduction to Databases using MS Access
Vocational Business 304, Introduction to Electronic Presentations using MS PowerPoint
Vocational Business 102, Introduction to Desktop Publishing using Adobe InDesign
Vocational Business 117, Introduction to Document Processing using Adobe Acrobat
Vocational Business 013, Introduction to Personal Management using MS Outlook
Vocational Business 012, Workforce Readiness
FIRST-LINE SUPERVISOR / MANAGER OF OFFICE AND ADMINISTRATIVE SUPPORT WORKERS CERTIFICATE OF COMPLETION (24187)

The First-Line Supervisor/Manager, Office and Administrative Support Workers certificate program is designed for both entry-level and experienced office workers looking for a promotion. Graduates will have expert office skills and in-depth software knowledge. The program provides training in office information systems and communications, work process and organizational performance improvement, business decision-making, project management and capital and human resource management.

Required courses:
- Vocational Business 118, Introduction to Windows
- Vocational Business 258, Navigating the Internet
- Vocational Business 097, Introduction to Personal Commerce on the Internet
- Vocational Business 260, Introduction to Word Processing using MS Word
- Vocational Business 262, Introduction to Spreadsheets using MS Excel
- Vocational Business 304, Introduction to Electronic Presentations using MS PowerPoint
- Vocational Business 103, Introduction to MS Project
- Vocational Business 012, Workforce Readiness

GENERAL OFFICE CLERK CERTIFICATION OF COMPLETION (24095)

The General Office Clerk certificate program is designed to give students the skills for entry-level positions in the business world. Clerk typist, credit clerk, file clerk, general clerk, receptionist, or data entry clerk positions require limited knowledge of office management systems and procedures. Clerical duties include skills in answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.

Required courses:
- Vocational Business 119, Introduction to Keyboarding and Basic Windows
- Vocational Business 258, Navigating the Internet
- Vocational Business 260, Introduction to Word Processing using MS Word
- Vocational Business 262, Introduction to Spreadsheets using MS Excel
- Vocational Business 121, Introduction to Computer Software Applications
- Vocational Business 012, Workforce Readiness

WEB ASSOCIATE CERTIFICATE OF COMPLETION (24420)

The Web Associate certificate program is designed to give students the necessary knowledge and skills to support providers and consumers of web services. To support advertising, marketing and sales staff in today's global economy, the web associate utilizes the understanding of distributed web services. Understanding and utilizing developed web applications is critical to finding new business for web design, Internet marketing, hosting, programming, and technology projects.

Required courses:
- Vocational Business 097, Introduction to Personal Commerce on the Internet
- Vocational Business 304, Introduction to Electronic Presentations using MS PowerPoint
- Vocational Business 096, Introduction to Use of Digital Cameras
- Vocational Business 303, Introduction to Electronic Imaging using Adobe Photoshop
- Vocational Business 011, Introduction to Web Graphics using Adobe CS Tools
- Vocational Business 242, Introduction to Vector Graphics using Adobe Illustrator
- Vocational Business 101, Introduction to 3D Modeling using Blender
- Vocational Business 120, Introduction to Animations using Flash
- Vocational Business 109, Introduction to Desktop Video Editing using Adobe Premiere
- Vocational Business 302, Introduction to Web Page Development using HTML
- Vocational Business 010, Introduction to Web Design using Adobe Dreamweaver
- Vocational Business 012, Workforce Readiness

CUSTOMER SERVICE REPRESENTATIVE CERTIFICATE OF COMPLETION (24427)

The Customer Service Representative certificate program is designed to give students the necessary knowledge and skills to deal directly with customers as the company representative in special problems that may arise. Students will be prepared to work as commercial or residential service representatives in positions in major department stores, collection agencies, credit bureaus, airlines, travel agencies, medical insurance agencies, public utilities and telephone answering services.

Required courses:
- Vocational Business 119, Introduction to Keyboarding & Basic Windows
- Vocational Business 260, Introduction to Word Processing using MS Word
- Vocational Business 258, Navigating the Internet
- Vocational Business 012, Workforce Readiness
NONCREDIT COURSE DESCRIPTIONS

Continuing Education courses are listed by subject on the following pages. Course numbers are listed at the beginning of each course title.

Open entry/open exit courses are noted in the course descriptions. Students may enroll at any time in these courses and begin class immediately. Students progress at their own rate and may exit from the class at any time upon satisfactory completion of the required work.

All credits listed are high school credits. Ten high school credits represent a minimum of 144 hours of study. In open entry/open exit courses, students earn credits by meeting individual competency-based objectives.

Some courses offer a certificate of course completion upon completion of all course requirements. A certificate of course completion does not appear on the official transcript.

The class schedule should be consulted for current offerings.
ADULT BASIC EDUCATION (ABE)

Adult Basic Education 009
Adult Basic Education
Credit(s): 5 - 20
Class Hours: 288.
Instructs students in basic skills, including reading, writing, spelling, and mathematics. Prepares students to take High School Subjects courses, job training, or college credit classes. Recommended for Intermediate ESL 1 students or above and/or placement by counselor assessment. Open Entry/Open Exit.

Adult Basic Education 011
Native Language Basic Skills for Adults
Credit(s): 0
Class Hours: 216.
Assists students in acquiring basic skills in their native language in order to facilitate the transition to beginning ESL courses. Focuses on reading, math, and writing, as well as academic and life skills. Open Entry/Open Exit.

CITIZENSHIP (CTZN)

Citizenship 020
Citizenship
Credit(s): 0
Class Hours: 72.
Provides basic knowledge of local, state, and federal government in preparation for the United States citizenship examination including language usage within the context of history and government. Recommended for students in Beginning ESL 2 or above. Open Entry/Open Exit.

COUNSELING (CNG)

Counseling 303
Educational and Career Assessment
Credit(s): 0
Class Hours: 3.
Assists students with appropriate educational placement and/or an overview of student services, career and academic guidance information that is available in Continuing Education as a result of individual and group testing. Open Entry/Open Exit.

ENGLISH AS A SECOND LANGUAGE (ESL)

English As a Second Language 010
ESL Writing
Credit(s): 0
Class Hours: 72.
Introduces non-native English speakers to an overview of the writing process including activities to improve student composition skills. This course is designed for students who test at the ESL Beginning 3 through Intermediate levels on the ESL Placement or the ESL pre- and post-tests. Open Entry/Open Exit.

English As a Second Language 120
ESL Civics
Credit(s): 0
Class Hours: 144.
Provides development in listening, speaking, reading and writing English within the context of history and government in preparation for the United States citizenship examination. Recommended for students in Beginning ESL 3 and above. Open Entry/Open Exit.

English As a Second Language 250
Seminar for Beginning ESL Students
Credit(s): 0
Class Hours: 72.
Provides English language skills (reading, writing, listening, speaking) on topics of concern to English as a Second Language students. Students will use teamwork and communication skills to enhance learning. Open Entry/Open Exit.

English As a Second Language 260
Seminar for Intermediate ESL Students
Credit(s): 0
Class Hours: 72.
Provides intermediate English language skills (reading, writing, listening, speaking) on topics of concern to English as a Second Language students. Students will use teamwork and communication skills to enhance learning. Open Entry/Open Exit.

English As a Second Language 399
ESL Literacy
Credit(s): 0
Class Hours: 216.
Develops the ability to recognize letters and numbers, read letters and numbers, and copy/produce alphabet, numerals, and simple personal information for second language learners. Open Entry/Open Exit.

English As a Second Language 400
Transition ESL
Credit(s): 0
Class Hours: 216.
Prerequisite: Take ESLP-300
Emphasizes listening comprehension and beginning oral production in basic communication. This is the first course in the Continuing Education ESL continuum. Open Entry/Open Exit.

English As a Second Language 410
Beginning ESL 1
Credit(s): 0
Class Hours: 216.
Emphasizes listening comprehension and beginning oral production of simple conversation, reading of practiced words and phrases, and prewriting tasks. This is the second course in the Continuing Education ESL continuum. Open Entry/Open Exit.

English As a Second Language 420
Beginning ESL 2
Credit(s): 0
Class Hours: 216.
Emphasizes comprehending simple conversations, communicating survival needs, reading phrases and simple sentences, and performing communicative written tasks. This is the third course in the Continuing Education ESL continuum. Open Entry/Open Exit.

English As a Second Language 430
Beginning ESL 3
Credit(s): 0
Class Hours: 216.
Emphasizes comprehending, participating in, and sustaining simple conversations, reading short passages with understanding, and producing short written passages. This is the fourth course in the Continuing Education ESL continuum. Open Entry/Open Exit.
English As a Second Language 440  
**Beginning 1-3 Multilevel**  
Credit(s): 0  
Class Hours: 216.  
Provides instruction for students in various levels of beginning English proficiency. Emphasizes speaking, listening, reading and writing English in familiar contexts. Topics include participating in basic conversations in routine social situations, and producing sentences related to survival skills and personal topics including technology enhanced instruction. Recommended for students in Beginning ESL levels 1-3. Open Entry/Open Exit.

English As a Second Language 460  
**Intermediate ESL 1**  
Credit(s): 0  
Class Hours: 216.  
Emphasizes creative oral language activities, initial critical thinking skills in reading comprehension, and written tasks which begin to focus on academic skills. This is the fifth course in the Continuing Education ESL continuum. Five High School elective credits may be granted if the student passes the post-test for this class with 75% or better. Open Entry/Open Exit.

English As a Second Language 470  
**Intermediate ESL 2**  
Credit(s): 0  
Class Hours: 216.  
Emphasizes understanding higher level language activities, reading passages with increased understanding, and increasing focus on creative and academic writing tasks. This is the sixth course in the Continuing Education ESL continuum. Five High School elective credits may be granted if the student passes the post-test for this class with 75% or better. Open Entry/Open Exit.

English As a Second Language 480  
**Intermediate ESL 3**  
Credit(s): 0  
Class Hours: 216.  
Emphasizes higher level language activities, conversations which convey complex thought patterns, authentic material which expands the use of critical thinking skills, and expanding realistic and creative/academic writing. This is the seventh course in the Continuing Education ESL continuum. Five High School elective credits may be granted if the student passes the post-test for this class with 70% or better. Open Entry/Open Exit.

English As a Second Language 500  
**Intermediate 1-3 Multilevel**  
Credit(s): 0  
Class Hours: 216.  
Provides instruction for students in various levels of intermediate English proficiency. Emphasizes creative oral language activities, introductory critical thinking skills in reading comprehension, and creative and academic writing tasks. Recommended for students in Intermediate ESL levels 1-3. Open Entry/Open Exit.

English As a Second Language 510  
**English for Work 1**  
Credit(s): 0  
Class Hours: 216.  
Prepares limited English-speaking students for employment. Focuses on vocabulary skills and vocational readings with emphasis on oral communication through basic language skills instruction. Recommended for students in Beginning 2 or Beginning 3. Open Entry/Open Exit.

English As a Second Language 520  
**English for Work 2**  
Credit(s): 0  
Class Hours: 216.  
Prepares limited English-speaking students for employment. Focuses on vocabulary skills and vocational readings with emphasis on oral communication through intermediate language skills instruction. Recommended for students in Intermediate 1 or higher. Open Entry/Open Exit.

English As a Second Language 530  
**American English Pronunciation**  
Credit(s): 0  
Class Hours: 216.  
Develops English language fluency, productive and receptive skills as they relate to sound discrimination, sound inventory, stress, intonation, linking, prominence, and rhythm. The course aims to help students to understand English and to be understood while functioning within employment, survival and academic contexts. This course is recommended for Beginning ESL 3 students and above. Open Entry/Open Exit.

English As a Second Language 570  
**Conversation 1**  
Credit(s): 0  
Class Hours: 72.  
Introduces conversation strategies in listening, language use, and non-verbal communications. Presents oral skills necessary in initiating, maintaining and closing conversations. Emphasis on oral skills which assist in social encounters and expand listening and speaking skills. This course is recommended for Beginning ESL 3 and Intermediate ESL 1 students. Open Entry/Open Exit.

English As a Second Language 580  
**Conversation 2**  
Credit(s): 0  
Class Hours: 72.  
For students interested in obtaining a practical degree of fluency in spoken English. Includes verbal and non-verbal communication within large and small groups or between two people. Emphasizes differences between formal and colloquial language, based on American attitudes and culture. This course is recommended for Intermediate ESL 2 and Intermediate ESL 3 students. Open Entry/Open Exit.

English As a Second Language 600  
**Personal Discovery for Employability**  
Credit(s): 0  
Class Hours: 72.  
Introduces non-native English speakers to skills that will enhance self discovery, life choices, and employability skills. This course is designed for students who test at Intermediate 1 level or above on the ESL placement or pre/post tests. Open Entry/Open Exit.

English As a Second Language 606  
**Interactive Language Training**  
Credit(s): 0  
Class Hours: Arranged.  
Provides students with supervised one-on-one and small group instruction in ESL, listening, speaking, reading, writing, grammar, citizenship, and employability skills and academic subjects. Computer technology is used to enhance learning. The class is open to ESL students of all levels. Open Entry/Open Exit.
HEALTH AND SAFETY (SAFE)

Health and Safety 200
Health and Safety Awareness & Application
Credit(s): 0
Class Hours: 30.
Provides information and a discussion forum related to current and relevant health and safety topics, issues, and/or concerns. Students will use teamwork, research techniques, decision making, and communications skills to enhance learning. Open Entry/Open Exit.

Health and Safety 300
Smoking Cessation
Credit(s): 0
Class Hours: 10.
Adheres to Clinical Practice Guidelines for treating tobacco use and dependence. This guideline has been established through evidence-based outcomes that combine nicotine replacement therapy and behavioral counseling. The course includes information on nicotine replacement therapy, rationale for cessation, identifying trigger points, coping skills and relapse prevention. The student will be encouraged to set a quit date after the first session. Open Entry/Open Exit.

Health and Safety 850
Emergency Planning and Safety
Credit(s): 0
Class Hours: 30.
Adheres to emergency planning and safety guidelines of appropriate federal, state and county authorities, specifically as it applies to the state of California. This course includes basic guidelines for dealing with emergency situations and handling safety issues arising from natural or man-made causes such as earthquakes, brush fires, home/building fires, freeway travel safety, floods and landslides. Open Entry/Open Exit.

Health and Safety 875
First Aid
Credit(s): 0
Class Hours: 15.
Provides students with general knowledge of basic first aid procedures. Open Entry/Open Exit.

Health and Safety 877
Health Issues and Concepts
Credit(s): 5
Class Hours: 72.
Provides a basic foundation in the issues and concepts of mental health, family and social health, the stages of the life cycle, medicine and drugs, and diseases and disorders. Open Entry/Open Exit.

Health and Safety 898
Substance Abuse
Credit(s): 0
Class Hours: 30-72.
Provides instruction in and discussion on the following components: addictive substances, physiology of addiction, stages of addiction, coping strategies, family systems, cognitive/behavioral principles, family relationships, and relapse prevention. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS (HSS)

High School Subjects 030
Study Skills for Academic Success
Credit(s): 5
Class Hours: 72.
Assists students in the process of defining academic goals and developing the skills to achieve them. Students learn to adapt study strategies to accommodate learning style preferences and course expectations. Develops awareness and application of study skills, including time management, textbook comprehension and retention, memory techniques, and note-taking. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects 032
HS Subjects Individualized Instruction
Credit(s): 0
Class Hours: 72-460.
Individualized delivery for the High School Diploma Program. Designed for the adult who wants a high school diploma. Self-paced with offerings in the areas of English communication, mathematics, science, social studies, fine arts/foreign language, life skills, and electives. Recommended 8th grade equivalency on TABE. Open Entry/Open Exit.

High School Subjects 338
Workforce Preparation
Credit(s): 5
Class Hours: 72.
Provides instruction, demonstration, identification, and discussion of topics that are critical for success in the 21st century workplace. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects 770
Orientation to College
Credit(s): 1.5
Class Hours: 8.
Introduces college services and programs. Identifies and explores programs and services designed to assist students entering college credit courses. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - ARTS (HSART)

High School Subjects - Arts 150
Mass Media
Credit(s): 5
Class Hours: 72.
This introductory course in mass media gives students an opportunity to study what they see, hear, and think about in their everyday experiences with television, film, music and radio, video games, magazines and newspapers, and the Internet. Students will also learn the basic principles of communication. The power of the news media and advertising industry will be discussed. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - Arts 500
Introduction to Theatre Arts
Credit(s): 5
Class Hours: 72.
Offers students opportunities to examine human experiences through imagined roles, expand the capacity for creative thinking and learn the history and terminologies of an important form of art. Open Entry/Open Exit.

High School Subjects - Arts 828
Understanding America Through Art
Credit(s): 5
Class Hours: 72.
Provides an overview of American civilization from the colonial period through the 20th century, including periods and schools of art in their historical context. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - Arts 837
The Film As Art
Credit(s): 5
Class Hours: 72.
Traces the history of film from the recording of a single event through the silent film era. Culminates in the use of classic and contemporary literature as a basis for modern film. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - Arts 845
Drawing and Painting 1
Credit(s): 5
Class Hours: 72.
Provides a beginning level studio course which introduces students to the world of visual art. Students will learn to draw and use a variety of materials and techniques to explore the elements of art and principles of design. Primary emphasis will be on drawing and creating works of art. Open Entry/Open Exit.
High School Subjects - Arts 846
Drawing and Painting 2
Credit(s): 5
Class Hours: 72.
Provides an intermediate level studio course to introduce students to visual arts with an emphasis on learning to paint and create original art works. Students will employ a wide variety of materials and techniques as they explore the elements of art and principles of design. (Recommended for those who have completed Drawing and Painting 1.) Open Entry/Open Exit.

High School Subjects - Arts 847
Drawing and Painting 3
Credit(s): 5
Class Hours: 72.
Provides an advanced studio level course to explore the world of visual art and to expand on techniques and the elements of art and principles of design. Emphasis will be on increasing drawing and painting skills and exploring new ways to create original artworks. Recommended for those who have completed Drawing and Painting 1 and 2. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - ENGLISH (HSENG)

High School Subjects - English 020
Literature Brought to Life
Credit(s): 5
Class Hours: 72.
Provides students with reading, writing, listening, and speaking activities through the study of literature. Literacy samples include novels, poetry, short stories, biographies, and essays. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - English 030
AP English 1A
Credit(s): 5
Class Hours: 72.
Prepares students to take the Advanced Placement Examination. Colleges and universities give advanced placement and/or college credit based on the the results of the AP examination. Areas of study include critical analysis of literature and writing assignments requiring focused practice on exposition, argument, personal narrative, and fictional or poetic forms. Open Entry/Open Exit.

High School Subjects - English 050
English Fundamentals
Credit(s): 5
Class Hours: 72.
Provides an advanced course in English grammar, parts of speech, and grammar to accelerate writing skills. Open Entry/Open Exit.

High School Subjects - English 051
English Fundamentals 2
Credit(s): 5
Class Hours: 72.
Provides an intermediate English course that expands on vocabulary, grammar, parts of speech, and writing skills. Open Entry/Open Exit.

High School Subjects - English 052
English Language Arts 1
Credit(s): 5
Class Hours: 72.
Introduces students to the development of language arts skills through reading and actively responding to various works of literature. Presents concepts of English grammar and mechanics through a primary text and technology-enhanced instruction. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - English 053
English Language Arts 2
Credit(s): 5
Class Hours: 72.
Expands the development of language arts skills through reading and actively responding to various works of literature. Presents concepts of English grammar, mechanics, and punctuation through a primary text and technology-enhanced instruction. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - English 060
Speech and Debate 1A
Credit(s): 5
Class Hours: 72.
Introduces the student to the short story as a literary form so that the student will learn how the individual elements work together to present a theme of effect. The student will study the development of the short story and will read selected short stories from various periods. Open Entry/Open Exit.

High School Subjects - English 062
The Short Story
Credit(s): 5
Class Hours: 72.
Introduces students to the short story through a range of oral communication topics, including interpretive, original, debate and spontaneous speeches. Students will be able to improve their ability to research, compose, deliver and critique speeches. Students will participate in competitive activities. Open Entry/Open Exit.

High School Subjects - English 063
English Through Literature 11A
Credit(s): 5
Class Hours: 72.
Integrates language arts skills and reading analysis, interpretation, and writing through a literature-based curriculum. Survey course which allows the student an opportunity to study some of the central works in American literature. Recommended for students who have completed 10th grade English or equivalent.) Open Entry/Open Exit.

High School Subjects - English 064
English Fundamentals 2
Credit(s): 5
Class Hours: 72.
Integrates language arts skills and reading analysis, interpretation, and writing through world literature. This course allows the student to study some central works in world literature. Recommended for students who have completed 11th grade English or equivalent.) Open Entry/Open Exit.

High School Subjects - English 066
English Fundamentals 3
Credit(s): 5
Class Hours: 72.
Provides an intermediate English course that expands on vocabulary, parts of speech, and grammar to accelerate writing skills. Open Entry/Open Exit.

High School Subjects - English 067
English Fundamentals 4
Credit(s): 5
Class Hours: 72.
Provides an advanced course in English vocabulary, grammar, parts of speech, writing skills, and general proficiency in the English language, both written and spoken. Open Entry/Open Exit.

High School Subjects - English 070
The Short Story
Credit(s): 5
Class Hours: 72.
Introduces the student to the short story as a literary form so that the student will learn how the individual elements work together to present a theme of effect. The student will study the development of the short story and will read selected short stories from various periods. Open Entry/Open Exit.
High School Subjects - English 072
Poetry
Credit(s): 5
Class Hours: 72.
Introduces poetry as a literary form. Examines the fundamentals of poetry through the reading of poetry of literary quality. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - English 076
The Novel
Credit(s): 5
Class Hours: 72.
Introduces the student to the novel as a literary form and how the individual elements work together to present a theme. The student will select 2 novels from an annotated reading list for independent study, completing Dialectical Journal entries. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - English 083
Composition 1
Credit(s): 5
Class Hours: 72.
Gives instruction and practice in the communication of ideas in written form. Emphasis on mastery of sentence and paragraph skills, including organization in terms of unity, support, and coherence in an effective, well-supported, one page composition. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - English 084
Composition 2
Credit(s): 5
Class Hours: 72.
Prepares the student to write well-conceived and well-executed two page essays. Meets the composition proficiency requirement. (Recommended for students who have completed Composition 1 or equivalent.) Open Entry/Open Exit.

High School Subjects - English 085
Composition 3
Credit(s): 5
Class Hours: 72.
Prepares college bound students with an advanced writing assignment that requires in-depth research culminating in the production of a minimum 15-page research term paper, including an outline and bibliography. (Recommended for students who have completed Composition 2 or equivalent.) Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - English 098
Building Vocabulary 3
Credit(s): 5
Class Hours: 72.
An advanced vocabulary course that provides practice in using context clues to develop vocabulary, and includes practice in synonyms, antonyms, matching words with meaning, adding words to readings, analogies, and sentence writing. Builds reading comprehension skills and creates a strong vocabulary foundation that enables students to be better readers, writers, thinkers, and test-takers. Open Entry/Open Exit.

High School Subjects - English 201
Survey of English Level 1
Credit(s): 5
Class Hours: 72.
Introduces students to the development of language arts skills through reading and active response to works of literature. Multi-media approaches are utilized. Open Entry/Open Exit.

High School Subjects - English 202
Survey of English Level 2
Credit(s): 5
Class Hours: 72.
Expands the development of language arts skills through reading and active response to works of literature. Multi-media approaches are utilized. Open Entry/Open Exit.

High School Subjects - English 203
Survey of English Level 3
Credit(s): 5
Class Hours: 72.
Explores the literature of the United States from the earliest English settlers to the present. Examines all genres as well as the characteristics of the various literary movements and their represented authors. Open Entry/Open Exit.

High School Subjects - English 204
Survey of English Level 4
Credit(s): 5
Class Hours: 72.
Integrates the language arts skills of reading, analysis, interpretation, and writing through literature. Examines central works in World and British Literature. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - HUMANITIES
(See High School Subjects - Arts)
### High School Subjects - Math 156
#### Essential Mathematics 1
- **Credit(s):** 5
- **Class Hours:** 72.
  Provides the student with practice in math skills that are applicable to everyday situations. Percents, graphs, proportions, and units of measurement are included. (Recommended for students who have completed Math Fundamentals 1 and 2 or equivalent.) Open Entry/Open Exit.

### High School Subjects - Math 157
#### Essential Mathematics 2
- **Credit(s):** 5
- **Class Hours:** 72.
  Provides the student with practice in basic computational skills of mathematics, algebra, and geometry. Practical applications are included. (Recommended for students who have completed Essential Mathematics 1 or equivalent.) Open Entry/Open Exit.

### High School Subjects - Math 159
#### Math Fundamentals 2
- **Credit(s):** 5
- **Class Hours:** 72.
  Provides instruction in the areas of decimals, percents, measurements and formulas, equations, ratios, and proportions. Provides learning activities which allow for remediation of difficulties and mastery of necessary skills. (Recommended for students who have completed Math Fundamentals 1 or equivalent or by diagnostic placement test.) Open Entry/Open Exit.

### High School Subjects - Math 161
#### Pre-Calculus With Trigonometry 1A
- **Credit(s):** 5
- **Class Hours:** 72.
  Presents an introduction to trigonometry, analytical geometry, functional analysis, and algebraic techniques needed in preparation for the study of calculus. The graphing calculator is used extensively throughout the course. (Recommended for students by instructor or counselor placement.) Open Entry/Open Exit.

### High School Subjects - Math 163
#### Algebra 1A
- **Credit(s):** 5
- **Class Hours:** 72.
  Provides instruction in sets, numbers, formulas, monomials, exponents, square root, the laws of the sign, binomials, and simultaneous equations. (Recommended for students who have completed Math Fundamentals 2 or equivalent.) Open Entry/Open Exit.

### High School Subjects - Math 164
#### Algebra 1B
- **Credit(s):** 5
- **Class Hours:** 72.
  Provides instruction in coordinate systems, graphing of linear equations, simultaneous equations of fractions, ratio, proportion, factoring, formulas, inequalities and square roots. (Recommended for students who have completed Algebra 1A or equivalent.) Open Entry/Open Exit.

### High School Subjects - Math 165
#### Algebra 2A
- **Credit(s):** 5
- **Class Hours:** 72.
  Provides instruction in coordinate systems, graphing of linear equations, simultaneous equations of fractions, ratio, proportion, factoring, formulas, inequalities and square roots. (Recommended for students who have completed Algebra 1A or equivalent.) Open Entry/Open Exit.

### High School Subjects - Math 166
#### Algebra 2B
- **Credit(s):** 5
- **Class Hours:** 72.
  Provides instruction in coordinate systems, graphing of linear equations, simultaneous equations of fractions, ratio, proportion, factoring, formulas, inequalities and square roots. (Recommended for students who have completed Algebra 1A or equivalent.) Open Entry/Open Exit.

### High School Subjects - Math 167
#### Geometry A
- **Credit(s):** 5
- **Class Hours:** 72.
  This course covers topics in basic geometry, reasoning and proofs, parallel and perpendicular lines, congruent triangles, properties of triangles, and quadrilaterals. (Recommended for students who have completed ten credits of Algebra.) Course cannot be challenged. Open Entry/Open Exit.

### High School Subjects - Math 168
#### Geometry B
- **Credit(s):** 5
- **Class Hours:** 72.
  This course covers topics in transformations, similarity, right triangles and trigonometry, circles, areas of polygons and circles, and surface area and volume. (Recommended for students who have completed Geometry A or equivalent.) Course cannot be challenged. Open Entry/Open Exit.

### High School Subjects - Other 005
#### Introduction to Child Development
- **Credit(s):** 5
- **Class Hours:** 72.
  Introduction to Child Development and the field of Early Childhood Education. Acquaints students with basic concepts and vocabulary, including the exploration of teaching as a career path. A variety of instructional delivery methods will be used. Course cannot be challenged. Open Entry/Open Exit.

### High School Subjects - Other 050
#### Basics of Leadership Part 1
- **Credit(s):** 5
- **Class Hours:** 72.
  Introduces applied leadership and self-development skills. Information will be presented in academic format, and students will be required to demonstrate mastery through participation in student-centered, hands-on activities. This course consists of ten stand-alone lessons, moderated by counseling faculty. Open Entry/Open Exit.

### HIGH SCHOOL SUBJECTS - NATURAL SCIENCE
(See High School Subjects - Science)
High School Subjects - Other 153
Supervised Tutoring
Credit(s): 0
Class Hours: Arranged.
Supervised one-to-one and small group tutoring in academic subjects, for students currently enrolled at Rancho Santiago Community College District in course(s) for which tutoring is requested. May be repeated. Open Entry/Open Exit.

High School Subjects - Other 201
Spanish 1B
Credit(s): 5
Class Hours: 72.
Designed to help the students develop listening, speaking, reading, and writing language skills through the study of the basic elements of the sound system of language patterns and vocabulary. Emphasis will be placed upon listening and speaking activities. Reading and writing activities will be introduced simultaneously. Cultural topics will be presented. Open Entry/Open Exit.

High School Subjects - Other 202
Basics of Leadership Part 2
Credit(s): 5
Class Hours: 72.
Introduces applied leadership and self-development skills. Information will be presented in academic format, and students will be required to demonstrate mastery through participation in student-centered, hands-on activities. This course consists of ten stand-alone lessons, moderated by counseling faculty. Open Entry/Open Exit.

High School Subjects - Other 501
Spanish 1A
Credit(s): 5
Class Hours: 72.
Designed to help students develop listening, speaking, reading, and writing language skills through the study of the basic elements of the sound system, language patterns, and vocabulary. Emphasis will be placed upon listening and speaking activities; reading and writing activities will be introduced simultaneously. Cultural topics will be presented. Open Entry/Open Exit.

High School Subjects - Other 505
Spanish 2A
Credit(s): 5
Class Hours: 72.
Designed to further develop the student's control of the language through listening, speaking, reading, and writing activities with emphasis being placed upon listening and speaking. Develops the student's knowledge of cultural topics. Open Entry/Open Exit.

High School Subjects - Other 510
Spanish 2B
Credit(s): 5
Class Hours: 72.
Designed to further develop the student's control of the language through listening, speaking, reading, and writing activities with emphasis being placed upon listening and speaking. Develops the student's knowledge of cultural topics. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - READING (HSRDG)
High School Subjects - Reading 010
Individualized Instruction in Reading
Credit(s): 5
Class Hours: 72.
Individualized delivery for the Reading Classes in the High School Subjects Diploma Program. Designed for the adult returning to finish work for a high school diploma. Courses included are: Building Reading Skills 1, Building Reading Skills 2, Reading Proficiency Development, and Reading Improvement. Open Entry/Open Exit.

High School Subjects - Reading 089
Reading Proficiency Development
Credit(s): 5
Class Hours: 72.
Enables students to become proficient in practical, content and reference skills as well as to improve general comprehension and vocabulary skills. This course is in preparation for the reading proficiency examination. Course cannot be challenged. Course cannot be repeated. Open Entry/Open Exit.

High School Subjects - Reading 090
Reading Improvement
Credit(s): 5
Class Hours: 72.
This course concentrates on two main approaches to improve reading skills: speed reading, which increases the number of words that can be read in a minute, and use of reading strategies to extract information from a text in the most effective way possible. Students will advance and adjust their individual reading rates appropriate to purpose. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - Reading 093
Bldg Reading Skills 1
Credit(s): 5
Class Hours: 72.
Provides an opportunity for skill development in word recognition, comprehension, study and content reading skills necessary for success in the High School Subjects program. Computer-aided instruction is included. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - Reading 094
Bldg Reading Skills 2
Credit(s): 5
Class Hours: 72.
Provides an opportunity for skill development in word recognition, general and inferential comprehension, critical thinking, and content reading skills necessary for success in the High School Subjects program. Computer-aided instruction is included. Course cannot be challenged. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - SCIENCE (HSSCI)
High School Subjects - Science 100
Chemistry 1B
Credit(s): 5
Class Hours: 72.
Extends the study of the properties of matter that can be used to identify matter and the techniques to measure these properties. Core topics include thermodynamics, acids and bases, and organic chemistry. (Recommended for students who have completed Chemistry 1A.) Open Entry/Open Exit.
High School Subjects - Science 182
Physiology 1A
Credit(s): 5
Class Hours: 72.
Develops an understanding of the structure and function of the system of the body and their relationships. Fundamental topics include structural and functional organization of the human body, cell-psysiology, integration of skeletal, muscular and nervous systems. Study of other organisms is included to complement an understanding of the human body. Open Entry/Open Exit.

High School Subjects - Science 183
Physiology 1B
Credit(s): 5
Class Hours: 72.
Develops an understanding of the structure and function of the system of the body and their relationships. Fundamental topics include structural and functional organization of the human body circulatory system, respiratory system, digestive system, excretory system, endocrine system, and reproductive system. (Recommended for students who have completed Physiology 1A or the equivalent.) Open Entry/Open Exit.

High School Subjects - Science 184
Chemistry 1A
Credit(s): 5
Class Hours: 72.
Presents the introduction to the study of properties that can be used to identify matter and the techniques to measure those properties. The process of science for obtaining and analyzing information will be stressed. Measurement and mathematics will be emphasized. Open Entry/Open Exit.

High School Subjects - Science 188
Earth Science 1
Credit(s): 5
Class Hours: 72.
Provides instruction in the principles and concepts of earth science. The earth's matter and features will be examined. Open Entry/Open Exit.

High School Subjects - Science 189
Life Science 1
Credit(s): 5
Class Hours: 72.
Surveys the principles and concepts of life science, including the study of organisms and their environment. Cells, animals, plants, protists, human life, heredity, and ecology will be examined. Open Entry/Open Exit.

High School Subjects - Science 190
Physical Science
Credit(s): 5
Class Hours: 72.
Surveys the principles and concepts of physical science, including matter, energy, and their relationship. Examines measurement and motion, classification of matter and light, sound, and energy. Open Entry/Open Exit.

High School Subjects - Science 192
Basic Science 1
Credit(s): 5
Class Hours: 72.
Surveys basic principles and concepts of general science including both earth and life science. Examines the universe and our planet's place in the universe. Discusses water, air, plants, animals, the human body, and health. Open Entry/Open Exit.

High School Subjects - Science 193
Basic Science 2
Credit(s): 5
Class Hours: 72.
Surveys basic principles and concepts of physical science. Examines force and energy, thermal energy and heat, magnetism and electricity, light, sound, matter and radioactivity. Open Entry/Open Exit.

High School Subjects - Science 196
Health Science
Credit(s): 5
Class Hours: 72.
Provides a basic foundation in personal health, nutrition, body functions, first aid and community health. Course cannot be challenged. Open Entry/Open Exit.

High School Subjects - Social Sciences 215
U.S. History 1:
Colonization to Industrialization
Credit(s): 5
Class Hours: 72.
Surveys events, movements, and personalities in United States history from colonial period through reconstruction, westward expansion, and industrialization. Includes immigration, plight of Native and African Americans, reform movements, and geographical influences in the history of the United States. Open Entry/Open Exit.

High School Subjects - Social Sciences 216
World Cultures 1A
Credit(s): 5
Class Hours: 72.
Provides an overview of the historical and cultural evolution of various regions with an emphasis on the nature of emerging leadership and contemporary challenges. Geography, history, social organizations, religion economic life, political trends, and global relations and influences represent critical elements of study. Regions of study include Africa, Latin America, and the Middle East. Open Entry/Open Exit.

High School Subjects - Social Sciences 217
World Cultures 1B
Credit(s): 5
Class Hours: 72.
Provides an overview of the historical and cultural evolution of various regions. Geography, history, social organizations, religion, economic life, political trends, and global relations and influences represent critical elements of study. Regions of study include Southeast Asia, China/Japan/ Korea, India, and Russia and the Independent States. (Recommended for students who have completed World Cultures 1A or the equivalent.) Open Entry/Open Exit.

High School Subjects - Social Sciences 218
U.S. History 2:
The Shaping of Modern America
Credit(s): 5
Class Hours: 72.
Examines United States history from the beginning of industrialization to present. Emphasizes the emergence of America on the international, economic, geographical, social, and political scene. (Recommended for students who have completed U.S. History 1 or equivalent.) Open Entry/Open Exit.
High School Subjects - Social Sciences 222
Government 1: United States Federal Government and Politics
Credit(s): 5
Class Hours: 72.
Examines the development of the Federal Government from colonial times, the structure of the contemporary government, and the economic, social, and political influence on America citizens and their civic duties and responsibilities. Open Entry/Open Exit.

High School Subjects - Social Sciences 223
Government 2: California State / Local Government
Credit(s): 5
Class Hours: 72.
Examines the diversity of California's geography, economy, and population, as well as knowledge of California's history, and constitutional development. Explores voters' roles in state and local politics. Open Entry/Open Exit.

High School Subjects - Social Sciences 224
World Geography 1A
Credit(s): 5
Class Hours: 72.
Provides a basic foundation for understanding physical geography and the cultural and economic variables in relationship with the earth and its history. Introduces North America, Latin America, Europe, and Russia. Includes geography skills such as map reading, interpretation of graphs and diagrams, and map identification. Open Entry/Open Exit.

High School Subjects - Social Sciences 225
World Geography 1B
Credit(s): 5
Class Hours: 72.
Provides an overview of certain areas of the world in terms of their physical, cultural, historical, and economic geography. Introduces North Africa, the Middle East, Africa south of the Sahara, the Asian Region, and the Pacific World. Includes geography skills such as map reading, interpreting graphs, and analyzing data from a chart. (Recommended for students who have completed World Geography 1A or equivalent.) Open Entry/Open Exit.

High School Subjects - Social Sciences 228
World History
Credit(s): 5
Class Hours: 72.
Offers the student a chronological understanding of world history in a sequence of events from the time before hominids became fully human, to the introduction to the new millennium. Addresses culture and geography in the context of world history. Open Entry/Open Exit.

OLDER ADULTS (OAP)

Older Adults 457
Music Arts for Older Adults
Credit(s): 0
Class Hours: 72.
Provides a positive framework for developing and enhancing music appreciation, vocal and instrumental skill. Emphasis will be on activities designed to encourage creative expression. Open Entry/Open Exit.

Older Adults 518
Creative Cooking for Older Adults
Credit(s): 0
Class Hours: 72.
Designed to enhance awareness of current cooking techniques. Demonstrations and lectures include information on basic nutrition and consumer awareness. A variety of cooking appliances and methods are utilized. Open Entry/Open Exit.

Older Adults 802
Seminar for Older Adults
Credit(s): 0
Class Hours: 72.
Provides information and a discussion forum related to the examination of concerns common to older adults. Discovers specific needs and interests and examines current news events as interpreted through historical background and current political/regional developments and changes. Open Entry/Open Exit.

Older Adults 823
Manipulative Skills for Older Adults
Credit(s): 0
Class Hours: 72.
Concentrates on improvement of motor skills and decision making through utilization of a variety of art media and techniques. Provides opportunities for analysis and decision making skills while exercising basic manipulative skills. Open Entry/Open Exit.

Older Adults 894
Physical Fitness for Older Adults
Credit(s): 0
Class Hours: 72.
Teaches movement exercises designed to improve or maintain flexibility, strength, endurance and cardiovascular and respiratory functions. Emphasizes motor movements, hand-eye coordination, body space awareness, balance training, reaction time, joint protection, and relaxation techniques. Open Entry/Open Exit.

PARENT EDUCATION (PRNT)

Parent Education 527
Pre-Kindergarten "Parent and Me" Training
Credit(s): 0
Class Hours: 22-132.
Provides the opportunity for parents and others to learn the importance of providing appropriate early childhood experiences and preparing children for a successful kindergarten experience. Topics include school readiness, how to transform children's everyday world into an exciting learning environment, and how to stay positively involved in children's education. Open Entry/Open Exit.

Parent Education 532
Effective Parenting
Credit(s): 0
Class Hours: 45-132.
Provides parents with an overview of child development milestones. Includes varied strategies for problem solving, effective communication, positive discipline and child-centered activities. Raises awareness of substance abuse, gangs, suicide and peer pressure. Encourages parents to take an active role to ensure the academic success, health and safety, and social well being of their children. Open Entry/Open Exit.

Parent Education 544
Preparation for Childbirth
Credit(s): 0
Class Hours: 18-36.
Provides prospective parents with information regarding the intellectual, physical, and emotional components of the birth process. Emphasizes exercise techniques for relaxation, labor, birth, and post-natal care. Open Entry/Open Exit.
SECONDARY SUBJECTS
GED (HSGED)

Secondary Subjects GED 031
GED Test Preparation
Credit(s): 0
Class Hours: 360.
Provides pre and post testing and individualized prescriptive instruction in preparation for the GED test. Covers test-taking strategies and the fundamentals of social studies, mathematics, science, writing, and reading. Course cannot be challenged. Open Entry/Open Exit.

SUBSTANTIAL DISABILITIES (SSD)

Substantial Disabilities 200
Issues and Concepts for Adults With Developmental Disabilities
Credit(s): 0
Class Hours: 180.
Provides information related to topics of everyday interest and importance to adults with developmental disabilities. Examines issues of relevance and provides a forum for discussion and exploration of various topics, such as current events, cultural awareness and health. Open Entry/Open Exit.

Substantial Disabilities 787
Employment Preparation for Adults with Developmental Disabilities
Credit(s): 0
Class Hours: 180.
Assists adults with developmental disabilities attain a higher functional level for the purpose of employment. Teaches skills necessary to establish and maintain productive interpersonal relationships, social interaction, and etiquette related to home, community, and vocational settings. Open Entry/Open Exit.

Substantial Disabilities 788
Independent Living Skills for Adults with Developmental Disabilities
Credit(s): 0
Class Hours: 180.
Assists adults with developmental disabilities attain a higher functional level for independent living in these areas: health and nutrition, personal appearance, communication, manners, money management, safety and consumer awareness, transportation, social interaction, and practical reading, writing and math skills related to home and community settings. Open Entry/Open Exit.

Substantial Disabilities 793
Physical Activities for Adults With Developmental Disabilities
Credit(s): 0
Class Hours: 180.
Assists adults with developmental disabilities acquire the skills necessary to maximize physical capabilities through physical activities tailored to their abilities. Students will be guided through independent and group activities to develop fitness awareness. Open Entry/Open Exit.

VOCATIONAL - BUSINESS (VBUS)

Vocational - Business 010
Intro to Web Design using Adobe Dreamweaver
Credit(s): 0
Class Hours: 60.
Provides introductory instruction to Adobe Dreamweaver, one of the industry's leading web authoring tools. Students will learn how to create and publish a web site, manage and maintain it. Open Entry/Open Exit.

Vocational - Business 011
Intro to Web Graphics using Adobe CS3 Tools
Credit(s): 0
Class Hours: 30.
Provides introductory instruction on preparing graphic images for the web with a focus on creating slices, image maps, rollovers and simple animations. Open Entry/Open Exit.

Vocational - Business 012
Workforce Readiness
Credit(s): 0
Class Hours: 60.
Provides instruction in office skills for employment preparation. Students will learn communication, decision-making, interpersonal, lifelong learning, and job seeking skills. Open Entry/Open Exit.

Vocational - Business 013
Introduction to Personal Management using Microsoft Outlook
Credit(s): 0
Class Hours: 60.
Provides introductory instruction on Microsoft Outlook, one of the industry's leading personal data management applications. Students will learn how to better manage their electronic communications, schedules, tasks and contact information using Outlook's Email Calendar, Task and Contact components. Open Entry/Open Exit.

Vocational - Business 080
Introduction to Medical Billing
Credit(s): 0
Class Hours: 120.
Introduces students to concepts and skills needed for a successful career in medical office billing. Students will learn current procedural terminology, the general plan of information in a medical office and the role of computers. Open Entry/Open Exit.

Vocational - Business 096
Introduction to Use of Digital Cameras
Credit(s): 0
Class Hours: 60.
Provides introductory instruction on using digital still and digital video cameras. Introduces students to camera selection, basic features, compositional guidelines, how to transfer files from the camera to the computer, basic image editing, use of photos/videos in common applications and output options. This course is designed to take independently or concurrently with courses such as Adobe Photoshop or Premiere. Open Entry/Open Exit.

Vocational - Business 097
Introduction to Personal Commerce on the Internet
Credit(s): 0
Class Hours: 60.
Provides introductory instruction to personal commerce on the Internet. Topics include privacy and security issues, searching techniques, auction bidding, secure payment methods, selling techniques and things to do to protect your consumer rights. Open Entry/Open Exit.

Vocational - Business 101
Introduction to 3D Modeling using Blender
Credit(s): 0
Class Hours: 60.
Provides introductory instruction on 3D modeling and animation using Blender software. Introduces students to Blender's Interface, 3D space, animation and modeling features, surfaces and textures, and uses. Designed for students who have completed an introductory computer course. Open Entry/Open Exit.
Vocational - Business 102
Introduction to Desktop Publishing using Adobe InDesign
Credit(s): 0
Class Hours: 60.
Provides introductory instruction on desktop publishing using Adobe InDesign. Introduces students to navigation of InDesign's work area, document setup, placement of text and graphics within frames, styles, color and transparency features, and how to export and print professional quality InDesign files. Designed for students who have completed an introductory computer course. Open Entry/Open Exit.

Vocational - Business 103
Introduction to MS Project
Credit(s): 0
Class Hours: 60.
Provides introductory instruction for taking other courses taught within the Windows environment. Introduces students to Windows: navigation, views, commands, file management, desktop customization, Help and other Windows programs; for example, address book and electronic communications. This course or Introduction to Keyboarding and Basic Windows is highly recommended prior to taking other courses taught within the Windows environment. Open Entry/Open Exit.

Vocational - Business 109
Introduction to Desktop Video Editing using Adobe Premiere
Credit(s): 0
Class Hours: 60.
Provides introductory instruction on desktop digital video production and editing using industry standard software. Includes capturing, importing, assembling and editing video, audio and still images. Designed for students who can type by touch. Open Entry/Open Exit.

Vocational - Business 117
Introduction to Document Processing using Adobe Acrobat
Credit(s): 0
Class Hours: 30.
Introduces students to portable document formats created with Adobe Acrobat. Students learn how to convert simple and complex documents to PDF files; navigate, edit and annotate PDF files; and distribute PDF files via the Internet. Open Entry/Open Exit.

Vocational - Business 118
Introduction to Windows
Credit(s): 0
Class Hours: 60.
Provides introductory instruction for learning MS Windows. Introduces students to Windows: navigation, views, commands, file management, desktop customization, Help and other Windows programs; for example, address book and electronic communications. This course or Introduction to Keyboarding and Basic Windows is highly recommended prior to taking other courses taught within the Windows environment. Open Entry/Open Exit.

Vocational - Business 119
Introduction to Keyboarding and Basic Windows
Credit(s): 0
Class Hours: 60.
Provides introductory instruction for keyboarding by touch and learning MS Windows. Introduces students to Windows: navigation, views, commands, file management, desktop customization and simple Accessory programs, such as WordPad, Character Map, Calculator and Paint. Scanning and working with simple graphics is also explored. This course or Introduction to Windows is highly recommended prior to taking other courses taught within the Windows environment. Open Entry/Open Exit.

Vocational - Business 120
Introduction to Animations using Flash
Credit(s): 0
Class Hours: 60.
Provides introductory instruction for creating short Flash movies for viewing on the Internet or for viewing in other multimedia formats. Students learn to create animations using Flash's drawing tools, layers and timeline. Students also are given an opportunity to explore Flash libraries, preview movies, save and publish Flash documents. Open Entry/Open Exit.

Vocational - Business 121
Introduction to Computer Software Applications
Credit(s): 0
Class Hours: 60.
Provides introductory instruction on industry-standard computer applications used for word processing, spreadsheets, databases, presentations, Internet access, and graphics: for example, MS Word, MS Excel, MS PowerPoint, Internet Explorer, Adobe Photoshop, Adobe Illustrator, Flash, and others. Open Entry/Open Exit.

Vocational - Business 242
Introduction to Vector Graphics using Adobe Illustrator
Credit(s): 0
Class Hours: 60.
Provides introductory instruction in the computer graphics and design. Includes basic design concepts, use of illustration tools, and modification of art work and text layout. Designed for students who have completed a basic computer operations course or equivalent. Open Entry/Open Exit.

Vocational - Business 258
Navigating the Internet
Credit(s): 0
Class Hours: 60.
Introduces students to the Internet. Topics include types of Internet connections, research and data retrieval techniques, and e-mail. Open Entry/Open Exit.

Vocational - Business 260
Introduction to Word Processing using MS Word
Credit(s): 0
Class Hours: 60.
Provides introductory instruction for word processing techniques using the personal computer. Includes the creating, formatting, editing, saving, and printing of simple documents. Uses MS Word software. Designed for students who can type by touch. Open Entry/Open Exit.

Vocational - Business 261
Introduction to Databases using MS Access
Credit(s): 0
Class Hours: 60.
Provides instruction in basic concepts using typical database problems with MS Access software. Designed for students who have completed an introductory basic computer operations course or equivalent. Open Entry/Open Exit.

Vocational - Business 262
Introduction to Spreadsheets using MS Excel
Credit(s): 0
Class Hours: 60.
Provides instruction in basic spreadsheet concepts using typical spreadsheet problems with Microsoft Excel software. Designed for students who have completed a basic computer operations course or equivalent. Open Entry/Open Exit.
VOCATIONAL - BUSINESS 302
Introduction to Web Page Development using HTML
Credit(s): 0
Class Hours: 60.
Provides introductory instruction to web page development. Topics include web page design elements: HTML; graphic images, movie and sound formats; and testing pages on cross platforms. Designed for students who have completed a basic computer course or equivalent. Open Entry/Open Exit.

VOCATIONAL - BUSINESS 303
Introduction to Electronic Imaging using Adobe Photoshop
Credit(s): 0
Class Hours: 60.
Provides introductory instruction to electronic imaging using Adobe Photoshop software. Topics include beginning Photoshop features, scanner basics, image and file formats, color importing/exporting of files and printing. Designed for students who have completed a basic computer operations course or equivalent. Open Entry/Open Exit.

VOCATIONAL - BUSINESS 304
Introduction to Electronic Presentations using PowerPoint
Credit(s): 0
Class Hours: 60.
Provides introductory instruction for development of professional quality, computer generated presentations using presentation software used in industry. Includes concepts of combining text, graphics, animations and/or sound to create slides for electronic output. Designed for students who have completed a basic computer operations course or equivalent. Open Entry/Open Exit.

VOCATIONAL - CLOTHING (VCLTH)
Vocational - Clothing 477
Fundamentals of Commercial Sewing
Credit(s): 0
Class Hours: 180.
Covers the selection of textiles appropriate for each item to be sewn or manufactured. Provides in depth study of the design, pattern making, construction, and quality control aspects of manufacturing. Recommended for those who have completed Introduction to Commercial Sewing or for those who have the instructor approval by assessment. Open Entry/Open Exit.

Vocational - Clothing 483
Introduction to Commercial Sewing
Credit(s): 0
Class Hours: 160.
Introduces basic commercial sewing skills, emphasizing safe operation of equipment, sewing terminology, pattern cutting, garment construction and repair. Open Entry/Open Exit.

VOCATIONAL - CONSTRUCTION (VCNST)
Vocational - Construction 608
Introduction to Welding, Pre-Apprentice
Credit(s): 0
Class Hours: 180.
Introduces welding safety, proper use of hand and power tools, and the basics of arc welding. Open Entry/Open Exit.

Vocational - Construction 611
Fundamentals of Welding, Pre-Apprentice
Credit(s): 0
Class Hours: 180.
Emphasizes basic skills in arc, tig, and mig welding. Recommended for those who have completed Introduction to Welding, Pre-Apprentice, or for those who have the instructor’s approval by assessment. Open Entry/Open Exit.

Vocational - Construction 857
Introduction to Construction Technology (Formerly Introduction to Construction Technology Safety)
Credit(s): 0
Class Hours: 180.
Provides a basic introduction to construction theory and tools used in construction technology and painting. Introduces basic theory and tools for use in masonry, concrete, painting, electrical and plumbing. Open Entry/Open Exit.

Vocational - Construction 859
Introduction to Cabinetry / Furniture Refinishing, Pre-Apprentice
Credit(s): 0
Class Hours: 180.
Provides introductory course instruction in workshop safety and basic use of tools and power equipment, cabinet design, and construction principles, and the use of finishes on common types of woods and cabinets. Open Entry/Open Exit.

Vocational - Construction 860
Construction Technology
Credit(s): 0
Class Hours: 180.
Provides a basic instruction with practical experience in carpentry, masonry, concrete, electrical and plumbing using construction technology theory and laws, including completion of project(s). Recommended for those who have completed Introduction to Construction Technology, or for those who have the instructor’s approval by assessment. Open Entry/Open Exit.

Vocational - Construction 865
Introduction to Painting
Credit(s): 0
Class Hours: 180.
Provides formal classroom and hands-on training in the following topics: safety procedures, equipment and tools in commercial painting, architectural coatings, exterior/interior preparation and painting, primers and sealers, stains, clear coating, painting masonry, fine finishing techniques, application equipment, viscosity of paint, respirators, clean-up and careers in the painting field. Open Entry/Open Exit.

Vocational - Construction 953
Fundamentals of Cabinetry / Furniture Refinishing, Pre-Apprentice
Credit(s): 0
Class Hours: 180.
Provides instruction in basic cabinetry/furniture construction, refinishing, and repair emphasizing the use of hand and power tools. Recommended for those who have completed Introduction to Cabinetry/Furniture Refinishing, Pre-Apprentice, or for those who have the instructor’s approval by assessment. Open Entry/Open Exit.

VOCATIONAL - FOOD (VFOD)
Vocational - Food 010
Institutional Food Preparation
Credit(s): 0
Class Hours: 240.
Prepares students for employment in commercial and institutional food kitchens. Topics include an introduction to basic food service administration, personal hygiene and food safety/sanitation, storage, terminology, equipment, food service math and science, nutrition, procedures, and employment preparation. Prepares the students for Servsafe Food Protection Manager Certification. Open Entry/Open Exit.
SANTIAGO CANYON COLLEGE
FACULTY
Adams, Rick (2001) English B.A., University of California, Berkeley; M.A., Fuller Theological Seminary; M.S., California State University Los Angeles.


Babyan, Diana (1981) ACE B.A., California State University, Fullerton; M.A., California State University, Long Beach.


Baldizon-Rios, Nena (1994) Counseling B.S., California State University, Fullerton; M.A., Chapman University; Ed.D., Argosy University.


Brooks, Debra Ann (1993) Geology A.A., San Bernardino Valley College; B.S., University of California, Riverside; M.S., Texas A & M University.


Carr-Rollitt, Lucy (1997) Disabled Students Programs & Services A.A., Rancho Santiago College; B.V.E., M.S., California State University, Long Beach.

Coto, Jennifer (2001) Counseling A.A. Orange Coast College; B.A., California State University, Long Beach; M.A., California State University, Dominguez Hills; Ed.D., Argosy University.


Deaver, Douglas (2005) Philosophy B.A., M.A., California State University, Long Beach; Ph.D., University of Southern California.


Deeley, Steven (2006) Business B.A., University of California, Santa Barbara; M.B.A., University of Southern California.


Diaz, Darlene (2007) Mathematics B.S., University of California, Irvine; M.S., California State University, Northridge.

Durdella, Caroline (2011) Assistant Dean, Institutional Effectiveness and Assessment B.A., M.A., California State University, Fullerton; M.A., Ph.D. University of California, Los Angeles.


El-Said, Nahla (2005) Chemistry M.S., California State University, Fullerton; Ph.D., University of California, Riverside.


Fajardo, Lourdes (2005) Spanish B.A., California State University, Stanislaus; M.A., California State University, Sacramento.

Fasbinder, Lori (2002) Dean of Instruction and Student Services Continuing Education B.A., M.A., California State University Fullerton.

Foley, Denise (2006) Biology B.S., Loyola Marymount University; Ph.D., University of California, Los Angeles.


Frias, Rudy (2002) Counseling A.A. Saddleback College; B.S., California State Polytechnic University, Pomona; M.A., Ed.D., Pepperdine University.

Frost, Alicia (2005) Mathematics B.S., M.S., California State University, Long Beach.


Hauscarriague, Anne (2001) Mathematics B.S., St. Mary's College of California; M.A.T., Kent State University; Ph.D., Claremont Graduate University.

Hernandez, John C. (2005) Vice President of Student Services B.A., California State University, Fullerton; M.S., California State University, Long Beach; Ph.D., University of Maryland, College Park.

Ho, Alice (2001) Librarian M.S., University of North Texas.


Hovanitz, Eric (2001) Geology  B.S., M.S. California State University Los Angeles; Ph.D., University of Southern California.


Jordan, Loretta (1998) Associate Dean, Student Development  B.A., University of California, Los Angeles; M.A., University of LaVerne.

Kennedy, James (2007) Dean of Instruction & Student Services Continuing Education  B.A., Sonoma State University; M.B.A., University of Phoenix.

Kessler, Ronald P. (2000) Computer Science, Psychology  A.A. Santa Ana College; B.A., M.A., California State University, Long Beach; Ph.D., California School of Professional Psychology.


Lamourelle, Regina (2000) Human Development  B.A., University of California, Santa Barbara; M.S., Ed.D., Nova Southeastern University, Fort Lauderdale, FL.


McMullin, Mary (1998) Reading  B.A, Humboldt State University, M.A., California State University, Long Beach.

Mettler, Mary (2007) Disabled Students Programs and Services  B.S., M.S., Boston University; M.A., Psy.D. Pepperdine University.

Miskovic, Linda (2005) Associate Dean, Admissions and Records  B.A., M.A., Western Illinois University; Macomb.


Mora, Aracey (2002) Interim Vice President, Academic Affairs  B.A., M.A., California State University, Long Beach; Ed.D., Pepperdine University.


Perry, Janis (1985) Counseling  B.S., M.S., University of Southern California.


Pryor, K. Laney (2002) Mathematics  B.A., Murray State University; M.A., California State University, Fullerton; Ph.D., Claremont Graduate University.


Rabii, Narges (2004) History and Political Science  B.A., California State University, Fullerton; History, M.A., California State University, Fullerton; Political Science, M.A., California State University, Long Beach.

Reed, Stephen (2007) History & Spanish  B.A., University of California, Riverside; M.A., University of Notre Dame, M.A., University of California, Riverside.

Resnick, Barry (1980) Counseling  B.S., University of Southern California; M.A., California State University, Long Beach; M.A., National University; Ed.D., Brigham Young University.

Rizvi, Syed (2005) Associate Dean, Financial Aid  M.S. Counseling, National University, La Jolla.


Sakamoto, Scott (2001) Mathematics  B.S., University of California, Santa Barbara; M.A., Ph.D., University of Arizona.

Salazar de la Torre, Rosa (1996) Counseling  B.S., California State Polytechnic University, San Luis Obispo; M.A., California State University, Dominguez Hills.


Slager, Bonnie (1971) Accounting  B.S., M.B.A., University of Southern California.

Smith, Mark (2007) Biology B.A., California State University, Stanislaus; M.A., California State University Sonoma.

Sproat, Barbara (2001) Librarian B.A., University of Minnesota, Duluth; M.L.S., University of Minnesota, Minneapolis; M.A., Children's Literature, Hollins University.


Strother, Judy (2001) Counseling A.A., Orange Coast College; B.A., California State University, Fullerton; M.A., Chapman University.


Swift, Cynthia J. (2006) Physics A.S., Cypress College; B.S., University of California Irvine; M.S., California State University Long Beach.


Taylor, Mike (2004) Biology A.A., Orange Coast College; B.S., M.S., California State University, Long Beach.

Tomanin, Terry L. (1989) High School Subjects/Adult Basic Education A.A., Glendale College; B.A., Brigham Young University; M.A., California State University, Fullerton.


Varela, Anita (2007) Librarian B.A., University of CA, Irvine; M.A., University of San Francisco; M.L.I.S., San Jose State University.


Vázquez, Juan (2002) President B.A., City University of New York; M.S., California State University, Fullerton.


Weispfenning, John (2007) Dean, Library, Arts, Humanities and Social Sciences B.S., Minnesota State University, Moorhead; M.S., North Dakota State University; Ph.D., Purdue University.


Williams, Alison (2005) Mathematics B.S., M.S., California State University, Long Beach.

SMOKING IS PERMITTED ONLY IN PARKING LOTS

PARKING PERMIT DISPENSER ($2 for 8 hours)
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