Cover
goes here:
Cabrillo Catalog
2007-2008
Welcome to the Cabrillo College 2007-2008 Catalog. Inside you’ll find information about our innovative programs and services designed to help you achieve your personal goals whether you are seeking a degree, enhanced job skills, or personal growth.

Our faculty members are as well-known for their outstanding teaching as they are for excellence in their fields. This translates into a superior learning experience for you, allowing you to accelerate your own learning and expertise.

Our high standards in the classroom are supported by a broad range of services from financial aid awards to career counseling, tutoring, interpreters and note takers for students with disabilities, to name just a few. We embrace the vibrant, diverse community that makes our campus a very special place.

Many of our students have extreme financial hardships. Approximately 33% of all our enrolled students receive some type of financial aid whether or not they are U.S. citizens. Taking advantage of financial aid awards makes attending college a reality for many.

Cabrillo has a well-known athletics program for both men and women. We are a member of the Coast Conference of the California Association of Community Colleges. We enter competitions in a wide variety of sports such as football, baseball, golf, basketball, tennis and swimming. Many of our alumni, such as Mark Eichhorn, Dann Bilardello, and Pete Hamm, have gone on to be drafted by major league baseball teams.

You will find friendly, supportive staff that genuinely wants to help you make the most of your Cabrillo experience. We all want you to have the best experience possible—because your success is our success.

Cabrillo College’s main campus is located in mid-Santa Cruz County, in the town of Apts on hills overlooking the entire Monterey Bay. In addition to the main campus, our center in Watsonville and Scotts Valley provide even more convenient access to higher education and services. Cabrillo offers alternative options for earning college credit, including a variety of classes held in downtown Santa Cruz, online courses and telecourses. Our facilities are up-to-date and cutting edge technology is integrated into our classes and programs.

I invite you to learn more about how we can help you attain your academic, career, and lifelong learning goals. Learn more about Cabrillo College by visiting our web site at http://www.cabrillo.edu.

I hope that you will join our academic community and make Cabrillo College an important part of your educational experience.

Sincerely,

Dr. Brian King
President
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<td>President and District Superintendent</td>
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<tr>
<td>Margrette (Pegi) Ard</td>
<td>Vice President, Business and Assistant Superintendent</td>
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<td>May K. Chen</td>
<td>Vice President, Student Services and Assistant Superintendent</td>
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<td>Renée M. Kilmer</td>
<td>Vice President, Instruction and Assistant Superintendent</td>
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<td>Robert Owen</td>
<td>Associate Vice President, Information Technology</td>
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<tr>
<td>Nancy A. Brown</td>
<td>Dean, Human Arts and Social Sciences Division</td>
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<td>Sesario R. Escoto</td>
<td>Dean, Student Services</td>
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<td>Wanda Garner</td>
<td>Dean, Natural and Applied Sciences Division</td>
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<td>Dan Martinez</td>
<td>Dean, Visual, Applied, and Performing Arts Division</td>
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<td>Rock Pfotenhauer</td>
<td>Dean, Career Education and Economic Development</td>
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<td>Margery Regalado Rodriguez</td>
<td>Dean, Instructional Development and Matriculation</td>
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<td>Kathleen Welch</td>
<td>Dean, Health, Wellness, Physical Education and Athletics Division</td>
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<td>Sheila Anderson</td>
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<td>Johanna Bowen</td>
<td>Director, Library and Learning Resources</td>
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<td>Doug Deaver</td>
<td>Director, Facilities Development</td>
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<td>Catherine (Kate) Hartzell</td>
<td>Director, Student Health Services</td>
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<td>Victoria Lewis</td>
<td>Director, Business Services</td>
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<td>Rachel Mayo</td>
<td>Director, Watsonville Center</td>
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<td>Loree McCawley</td>
<td>Director, Personnel/Human Resources</td>
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<td>Tom McKay</td>
<td>Director, Allied Health</td>
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<td>Joseph Nugent</td>
<td>Director, Maintenance and Operations</td>
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<td>Mary Planding</td>
<td>Director, Marketing and Communications</td>
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<td>Deborah Soria</td>
<td>Director, Financial Aid and Scholarships</td>
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<td>Teresa Thomae</td>
<td>Director, Small Business Development Center</td>
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<tr>
<td>Melinda Silverstein</td>
<td>Executive Director, Cabrillo College Foundation</td>
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<tr>
<td>Dena Taylor</td>
<td>Program Manager, Fast Track To Work</td>
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Instructional Divisions and Departments

**Business, English, and Language Arts**

Dean: James Weckler
- Accounting & Finance
- Bilingual and Bicultural Studies
- Business
- Computer Applications/Business Technology
- English
- English as a Second Language
- Humanities
- Journalism
- Reading
- Real Estate
- World Languages

**Health, Wellness, Physical Education and Athletics**

Dean: Kathleen Welch
- Adaptive PE
- Allied Health
- Dental Hygiene
- Gerontology
- Health Science
- Human Services
- Medical Assistant
- Nursing Education
- PE/Athletics
- Radiologic Technology
- Stroke Center

**Human Arts and Social Sciences**

Dean: Nancy A. Brown
- American Studies
- Anthropology
- Asian Studies
- Archaeological Technology
- Communication Studies
- Culinary Arts and Hospitality Management
- Early Childhood Education
- Economics
- Education
- Geography
- History
- International Studies
- Meteorology
- Philosophy
- Political Science
- Psychology
- Public Safety
- Sociology
- Women's Studies

**Instructional Development**

Dean: Margery Regalado Rodriguez
- Articulation
- Assessment
- Disabled Student Programs and Services (DSPS)
- Learning Skills
- Outreach
- Tutorial

**Library**

Library Director: Johanna Bowen
Library

**Natural and Applied Sciences**

Dean: Wanda Garner
- Aeronautics
- Astronomy
- Biology
- Chemistry
- Computer and Information Systems
- Computer Science
- Construction and Energy Management
- Digital Bridge Academy
- Engineering
- Engineering Technology
- Environmental Science
- Geology
- Horticulture
- Mathematics
- MESA
- Oceanography
- Physics
- Welding

**Visual, Applied, and Performing Arts**

Dean: Dan Martinez
- Applied Living Arts
- Art History
- Art Photography
- Art–Studio
- Dance
- Digital Media
- Music
- Theatre Arts
Academic Calendar
2007–2008

FALL SEMESTER

May 12-August 23 . . . . . . . . . . . . . . . . . . . . . . . Early Registration
September 3 . . . . . . . . . . . . . . . . . . . . . . . . Labor Day (Holiday)
September 4 . . . . . . . . . . . . . . . . . . . . . . . . Fall Semester begins
September 15 . . . . . . . . . . . . Deadline to register for a full-term course
September 15 . . . . . . . . . . . . Deadline to drop a full-term course with a refund or reversal of charges
September 17 . . . . . . Census day attendance check for full-term courses
September 29 . . . . . . Last day to drop a full-term course without an academic record “W”
October 5 . . . . . . . . . . . . Deadline for credit/no credit grade option in a full-term course
November 12 . . . . . . . . . . . . Veterans’ Day (Holiday)
November 19 . . . . . Last day to petition for fall degrees and certificates
November 22-24 . . . . . . Thanksgiving (Holiday)
November 26 . . . . . . Last day to withdraw from a full-term course
December 15-21 . . . . . . . . . . . . . . . . . . . . . . . Final Examinations
December 21 . . . . . . . . . . . . . . . . . . . . . . . . . Fall Semester ends

SPRING SEMESTER
February 11, 2008 - June 7, 2008

December 11-February 6 . . . . . . . . . . . . . . . . . Early Registration
February 11 . . . . . . . . . . . . . . . . . . . . . . . . Spring Semester begins
February 15 & 18 only . . . . . . . . . . . . . . . . . President’s Days (Holidays)
February 23 . . . . . . . . . . . . Deadline to register for a full-term course
February 23 . . . . . . . . . . . . Last day to drop a full-term course with a refund or reversal of charges
March 3 . . . . . . . . . . . . Census day attendance check for full-term courses
March 8 . . . . . . . . . . . . Last day to drop a full-term course without an academic record “W”
March 15 . . . . . . . . . . . . Last day for credit/no credit grade option in a full-term course
March 24-29 . . . . . . . . . . . . . . . . . . . . . . . . . Spring Break
March 31 . . . . . . . . . . . . Last day to petition for spring degrees and certificates
May 10 . . . . . . . . . . . . Last day to withdraw from full-term course
May 26 . . . . . . . . . . . . Memorial Day (Holiday)
June 2-7 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Final Examinations
June 6 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Graduation
June 7 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Spring Semester ends

WINTERSESSION
January 7, 2008 - February 1, 2008

January 1 . . . . . . . . . . . . New Year’s Day (Holiday)
January 7 . . . . . . . . . . . . . . Winter Session Term begins
January 21 . . . . . . . . . . . . Martin Luther King, Jr. Day (Holiday)
February 1 . . . . . . . . . . . . . . Winter Session Term ends

SUMMER SESSIONS (tentative)
June 16-August 8, 2008

June 16-July 11 . . . . . . . . . . . . . . . . . . . . . . . . First four-week session
June 16-July 25 . . . . . . . . . . . . . . . . . . . . . . . Six-week session
July 4 . . . . . . . . . . . . . . . . . . . . . . . . . . . Independence Day (Holiday)
July 14-August 8 . . . . . . . . . . . . . . . . . . . . Second four-week session

Students may obtain Cabrillo College information, including the current Schedule of Classes, on the Internet at www.cabrillo.edu
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HISTORY OF CABRILLO COLLEGE

Residents of Santa Cruz and Monterey counties living in the San Lorenzo, Santa Cruz, and Watsonville high school districts approved formation of a two-year college district in 1958.

The Governing Board, elected in January 1959, chose the name “Cabrillo College” and employed staff to begin instruction in September of the same year. More than 800 day and evening students enrolled in freshman classes in temporary quarters at the Watsonville High School campus; sophomores continued to attend neighboring junior colleges. The College added sophomore classes to its program in September 1960.

The Governing Board, assisted by citizen committees, selected the present campus site and proposed a $6.5 million bond issue during the first year. Voters gave a 77% “yes” vote to the proposal in June 1960.

Construction of the permanent campus in Aptos began in 1961, and more than 2,000 day and evening students enrolled at the new facility in September 1962. The campus was built to accommodate 2,500 students.

The College began construction of three additional major classroom structures in 1966. To help finance campus expansion, voters of the district gave an 81% “yes” vote on a $1.1 million bond issue in April 1965. Completion of these buildings increased campus capacity to 5,000 students.

A second expansion of campus facilities was made possible by approval of state community college construction funds in November 1972 and the passage of a local matching fund bond of $3 million in April 1973. Twenty acres of property on the ocean side of Soquel Drive were purchased, and four new buildings were constructed. In the 1990s, two buildings were remodeled and now house technology-related instruction.

In June of 1998, the voters again overwhelmingly supported the College by passing a bond measure for repairs, renovations and expansion of the existing campus, as well as expansion of outreach facilities.

A major expansion in off-campus offerings occurred in fall 1987 with the opening of the Watsonville Center. In 1993, the old Watsonville Post Office was remodeled by the City of Watsonville to house the Cabrillo College Watsonville Center. After the passage of Measure C in 1998, Cabrillo College worked closely with the City of Watsonville to purchase both the old Post Office building and the adjacent Comerica Bank site to provide a new and permanent home for the Watsonville Center. The expanded facility opened in fall of 2001. Enrollment at the Watsonville Center has grown to over 2300 students.

The College opened a world-class Environmental Horticulture Center and Botanic Gardens in fall 2002, providing an exceptional site for teaching, learning, and community enjoyment. The new center is located on the hills above the Aptos campus with sweeping views of the Monterey Bay.

In March 2004, voters approved a $118.5 million bond measure allowing the College to expand its excellent health-careers training programs, make improvements to classrooms, expand the Watsonville Center, and help students better prepare for jobs and transfer to four-year colleges, in addition to other important projects.

In January 2007, the college opened the Scotts Valley Center to serve the residents of Scotts Valley and San Lorenzo Valley better. The Center, a modern facility with state-of-the-art classrooms, has easy access from Highway 17. Over 600 students enrolled in the opening semester.

WHO WAS CABRILLO?

Cabrillo College is named after Juan Rodriguez Cabrillo, a sixteenth century Portuguese explorer who “discovered” California while in the service of Spain.

After taking part in the Cortez victory over the Aztecs, Orozco’s expedition in Oaxaca, and the conquest of Guatemala, Cabrillo sailed from Guatemala with Alvarado’s fleet on its northwestern exploration in 1540. Alvarado met his death on the west coast of Mexico, and Cabrillo assumed command of the expedition. On September 25, 1542, Cabrillo discovered San Diego Bay, naming it San Miguel. He visited Monterey Bay and discovered the Santa Lucia Mountains on his journey, which reached as far north as Point Reyes.

During the voyage in 1543 Cabrillo died. In 1935 the state legislature designated September 28 as “Cabrillo Day,” commemorating the anniversary of Cabrillo’s exploration in California.

MISSION STATEMENT

The mission of Cabrillo College is to enhance the intellectual, cultural, and economic vitality of our diverse community by assisting all students in their quest for lifelong learning and success in an ever-changing world.

Our purpose is to provide an accessible and effective learning environment, which aids students in their pursuit of transfer, career preparation, personal fulfillment, job advancement, and retraining goals.

Our core values are academic freedom, critical and independent thinking, and respect for all people and cultures. Our commitment is to encourage excellence, offer a balanced curriculum, promote teaching methods for diverse learning styles, and involve and enrich our community.
COLLEGE CORE COMPETENCIES

To achieve our mission, the Cabrillo College community works together to help students master our four college competencies. The Core 4 represent the major skills that all students need to succeed. The college is committed to fulfilling this promise: When our students have met the requirement for the A.A. or A.S. degree requirements or have completed the general education sequence, they will be competent in:

**Communication:** Reading, Writing, Listening, Speaking and/or Conversing

**Critical Thinking and Information Competency:** Analysis, Computation, Research, Problem Solving

**Global Awareness:** An appreciation of Scientific Processes, Global Systems and Civics, and Artistic Variety.

**Personal Responsibility and Professional Development:** Self-Management and Self-Awareness, Social and Physical Wellness, Workplace Skills

STUDENT LEARNING OUTCOMES

Student learning outcomes define what students can do when they have completed a course, a certificate or a degree. They are the goals and skills that they have achieved through their study. The four college core competencies are the student learning outcomes for our A.A. and A.S. degrees and the general education sequence. The college is in the process of defining SLOs for every occupational degree, certificate, and course. Students must demonstrate competency in the SLO to pass the course or be awarded the certificate or degree.

PRIMARY FUNCTIONS

**Transfer Education:** to provide lower division general education and major preparation courses leading to an associate degree and/or to transfer to a four-year college/university;

**Occupational Education:** to provide education and training in selected occupational fields leading to job entry, advancement, retraining and certification, and to associate degrees.

ESSENTIAL TO THE PRIMARY FUNCTIONS

**Basic Skills Education:** to provide transitional education programs and courses for students needing preparation to succeed in college-level work;

**Student Support Services:** to provide student support services that enhance student success.

AUTHORIZED FUNCTION

**Noncredit Education and Self-Supporting Programs:** to offer continuing education responsive to the professional, cultural, and developmental needs and interests of the community.

ACCREDITATION

Cabrillo College is accredited by the Western Association of Schools and Colleges, the recognized local agency which is affiliated with the Federation of Regional Accrediting Commission of Higher Education. The College has been approved by the Board of Governors of the California Community Colleges and the California State Department of Education. The College is also approved by the California Department of Education for the training of veterans under the provisions of the G.I. Bill of Regulations. The College is a member of the Community College League of California. Designated courses are accepted on a transfer basis by the University of California, the California State University system, and by private four-year colleges and universities.

GENERAL CURRICULUM

To fulfill essential components of the mission of Cabrillo College, the Governing Board recognizes and supports the offering of courses that meet the needs of the residents of the district. The College, offers the following curriculum:

**Transfer**

The College courses and programs fulfilling requirements for admission to advanced standing in the University of California, California State University system, and many other public and private four-year institutions.

**Occupational**

Offers occupational courses and programs giving students the opportunity to acquire required job skills that will lead to employment or job advancement. A student planning to enter an occupation or to upgrade job skills may enroll in one of the occupational curricula as described in this catalog.

**General Education**

General Education courses are designed to give breadth and coherence to the student’s education experience. General education is that part of a student’s education that encompasses the common knowledge, appreciations, attitudes, and skills needed to become effective as an educated person in our society, including awareness, appreciation, and respect for diverse cultures. General education is complementary to, but different in emphasis and design from, specialized training for a job, a profession, or advanced study in a specific field of knowledge.

**Basic Skills**

Developmental courses are necessary for student success and retention. Basic skills courses are designed for students who are nearly college ready but exhibit skill deficiencies more than one level below freshman level English, math, or reading.
**Learning Skills**

Learning Skills courses are designed to assist students who have learning disabilities to succeed in programs of study offered by the College. Placement in these classes is preceded by individual diagnostic testing. An Individual Education Plan will be developed for each student.

**Noncredit Classes**

Certain class subjects qualify for special state funding and do not carry an enrollment fee. These classes, numbered in the 500 series, are designed to provide educational opportunities for older adults, parents, “fast track to work” students, and those in other areas of interest such as health and consumer protection.

**COMMUNITY CAMPUS**

Community Campus classes offer students an opportunity to attend college classes in their neighborhood. Community Campus classes are held at various locations in the Santa Cruz area. Class offerings include both general education designed to meet basic course requirements and occupational courses providing job training for employment. Information pertaining to Community Campus classes can be found in the current Schedule of Classes or by calling Admissions and Records at (831) 479-6201.

**CABRILLO EXTENSION**

The Cabrillo Extension Office provides fee-supported classes, motorcycle safety training, traffic school, online classes, special events, corporate training, scheduling of college facilities for community and college use, and ticket sales for performing arts events.

**Cabrillo Extension Classes**

Approximately 400 fee-supported not-for-credit classes are offered to the public each year. They cover a full spectrum of topics for all age groups and are scheduled 12 months a year in convenient formats. The Cabrillo Extension publication lists these classes, plus concerts, lectures, and other special events. Class suggestions from the community are welcome. For information call (831) 479-6331 or visit http://www.cabrillo-extension.org.

**Use of College Facilities by the Public**

The College encourages the use of school facilities by public agencies and community organizations. Over 1200 events per year are scheduled on the Cabrillo campus, and a comprehensive master calendar is maintained in the Cabrillo Extension Office. Both indoor and outdoor facilities are available. Organizations can receive scheduling and fee information by calling (831) 479-6332. For information on renting the Sesnon House, call (831) 479-6229.

**Corporate Training**

Cabrillo College develops programs to meet the training and retraining needs of business, industry, government, and labor. We also offer meeting facilitation and coaching services. For information call (831) 479-5039 or click on the Corporate Training link on the Cabrillo Extension website at www.cabrillo-extension.org.

**Ticket Sales**

For information on ticket sales please call (831) 479-6331.

**SMALL BUSINESS DEVELOPMENT CENTER**

The Central Coast Small Business Development Center (SBDC) offers counseling, technical assistance, and referral services free of charge to start-up and existing businesses in Santa Cruz and Monterey counties. You do not need to be a Cabrillo College student to obtain services from the SBDC. The center also offers business-related workshops, and seminars for a nominal fee. Counseling services available include business plan development, marketing and sales, personnel management, financing, bookkeeping, and financial analysis. For more information, call (831) 479-6136 or e-mail the center at sbdc@cabrillo.edu. The SBDC is operated by Cabrillo College under contract with the California Community Colleges Chancellor’s Office, the U.S. Small Business Administration, and Humboldt State University.

**DISTANCE EDUCATION**

Distance education is instruction in which the faculty member and student are separated by distance and interact through the assistance of communication technology. Distance courses provide students the opportunity to complete their course work outside the classroom, on their own time. The courses are academically equivalent to on-campus courses and are offered by Cabrillo instructors. Since students are responsible for learning on their own, success in these courses requires maturity and a strong commitment. Cabrillo offers three forms of distance education: telecourses, teleweb courses, and online courses.

- Telecourses are pre-produced television courses that can be seen on Community Television of Santa Cruz County (channel 25) and Watsonville Community Television (consult local listings for channels) and on videotape.
- Teleweb courses combine the impact of television with the depth and diversity of Internet use for communication and information retrieval.
- Online classes are offered to students using a computer with an individual e-mail account and access to the Internet.

For information, contact Francine Van Meter at (831) 479-6191 in the Teaching and Learning Center. For current listings of Distance Education classes, see the Cabrillo College at website www.cabrillo.edu.

**EVENING CLASSES**

The evening program is an extension of the day program, paralleling day courses in college credit value, prerequisites, course content, and hours in class. Requirements for the associate degree are the same for evening students, day students, and weekend students. Counseling is available by appointment most evenings until 7 p.m. Information pertaining to evening classes may be obtained from Admissions and Records at (831) 479-6201.

**SUMMER AND WINTER SESSIONS**

Summer sessions of four and six weeks, plus a four-week Wintersession, supplement the primary college semesters of fall and spring. The courses scheduled are generally designed to meet basic course requirements and prerequisites, and to provide occupational training for employment. Recent high school graduates may enroll in summer sessions for an early start in college work. Students who will be in high school during the academic year following the summer session may, with the consent of their high school principal or counselor and parent or guardian, enroll in college summer courses. Out-of-state students must meet the same residence qualifications of regular session day students. All students are required to be assessed and attend the Cabrillo College orientation.
WATSONVILLE CENTER
The Watsonville Center is located at 318 Union St. in downtown Watsonville, next to the City Plaza. Classes offered include general education, vocational, and transfer level courses in most disciplines. Students may complete all general education requirements at the center for an A.A./A.S. Degree, vocational certificate, or preparation for transfer. All college registration activities and student records may be accessed at the Center, as well as tutoring, counseling, financial aid, health services, learning disability testing, services for students with disabilities, the college bookstore, library resources, open computer labs, assessments, and orientation. The Admissions and Records office is open Monday through Thursday, 8 a.m. to 6:00 p.m., and Friday 9 a.m. to 2:30 p.m. The main information number is (831) 477-5100.

SCOTTS VALLEY CENTER
The Scotts Valley Center is located at 104 Whispering Pines Drive near the intersection of Scotts Valley Drive and Mount Herman Road. Many of the courses offered in the multimedia-equipped, state-of-the-art classrooms qualify for transfer credit, and most are AA/AS degree-applicable or lead towards certificates of proficiency in selected occupational fields. Admissions and Records staff is available to assist students from 8 a.m. to 6 p.m. Monday through Thursday and academic counseling is available by appointment. The main information number is (831) 477-3550.

MILITARY AFFAIRS PROGRAM/ROTC
Cabrillo College students may register for lower division courses designed for those who wish to explore their interests in military affairs or in becoming commissioned officers in the United States military forces.

Courses are conducted at the University of California, Berkeley. Some courses are offered on Saturday for the convenience of the community college student. Credit is granted through the University and will be recorded toward the A.A. or A.S. degree at Cabrillo College upon receipt of an official UC grade report. Information is available on the web at http://military.berkeley.edu/

INDIVIDUALIZED LEARNING
A variety of individualized learning programs are available for students. For information about individualized learning available on campus, contact the following departments:

- Biology Learning Center, Room 616, (831) 479-6286
- Computer Technology Center, Building 1400, (831) 479-6737
- Library–Reference Desk, Building 1000, (831) 479-6163
- Mathematics Learning Center, Room 1074, (831) 477-5696
- Reading Center, Room 1063, (831) 479-6573
- Writing Center, Room 1060, (831) 479-6319
- ESL Laboratory, Room 1060, (831) 479-5790
- Tutorial Center, Room 1080A, (831) 479-6470
- MESA Study Center, Room 714, (831) 479-6503
- Physics/Engineering Learning Center, Room 830 (no phone)
- Watsonville Integrated Learning Center, Room 4410, (831) 477-5155

COOPERATIVE WORK EXPERIENCE EDUCATION (CWEE)
Cooperative Work Experience Education Courses
Cabrillo College offers three opportunities for students to receive course credit through linking academic opportunities with paid or unpaid workplace experiences: Career Work Experience, General Work Experience, and Service Learning. Students earn one unit per 60 hours of unpaid work experience or one unit per 75 hours of paid work experience. Work Experience students benefit by gaining a realistic approach to the 21st century job market, validating interests and clarifying career goals by applying classroom theories to the work environment, and having work experience to refer to on future job applications.

Career Work Experience is for students enrolled in career-oriented majors. This program provides supervised work experience at a worksite that is directly related to the student’s career goal, and along with other on-campus lecture and laboratory courses, is an integral part of the student’s major. Students who enroll in Career Work Experience must be concurrently enrolled in one other course that qualifies for the degree or certificate in their career/occupational major. Students may earn up to 16 credit units of career work experience.

General Work Experience is for students who want to explore career and work experience opportunities. This program, designed to help students develop career and workplace culture awareness, combines classroom instruction with paid or volunteer work experience, utilizing the community’s business, industry, government, and non-profit agencies as expanded educational sites. Courses are listed under Work Experience Education. Students may earn up to 6 credit units of general work experience.

Service Learning is for students who are co-enrolled in a course that offers a Service Learning option. Service Learning integrates community service with academic learning, focusing on meeting community needs and achieving course objectives. Individual course listings will specify if a course includes a Service Learning option.

Work Experience credit is either non-transferable, or transferable to select CSU campuses. Transfer credit is limited at some CSU campuses; students are advised to check with a Cabrillo College counselor. Additional assignments are required for Work Experience transfer credit.

To enroll, a student must be enrolled in a minimum of seven units including Cooperative Work Experience Education, have a full or part-time paid or volunteer job, attend a one hour orientation session, and develop learning objectives with the assigned faculty instructor/coordinator and the worksite supervisor.

If a student does not currently have a job, the Cabrillo College Student Employment Center, Room 804, can assist in obtaining suitable paid employment and unpaid work experience opportunities. Many of their job resources can be accessed through their web site by searching for “job placement” on the Cabrillo College home page.

For further information contact the Cooperative Work Experience Education (CWEE) Program Coordinator at (831) 477-5650, Room 2100B. Students can also access the Cabrillo College Cooperative Work Experience Education web page by scrolling the “A – Z Index” to “C” on the Cabrillo College home page: www.cabrillo.edu
NONDISCRIMINATION POLICY

Cabrillo College does not discriminate on the basis of ethnicity, national origin, religion, age, gender, sexual orientation, race, or physical or mental disability, or any other protected status category in any of its policies, procedures, or practices. This nondiscrimination policy covers admission and access to, and treatment and employment in, the College’s programs and activities, including vocational education programs. Limited English language skills will not be a barrier to admission and participation in vocational education programs. To request more information about equal opportunity policies and the filing of grievances, contact:

Pegi Ard, ADA Coordinator: (831) 479-6406
Joe Napolitano, Section 504 Officer: (831) 479-6395
Loree McCawley, Director of Human Resources
(staff complaints): (831) 479-6217
Sesario R. Escoto, Student Affairs Office
(student complaints): (831) 479-6525
All of the above can be reached at 6500 Soquel Drive, Aptos, California 95003.

The College recognizes its obligation to provide overall program accessibility for students with disabilities. Contact the Section 504 Coordinator to obtain information as to the existence and location of services, activities, and facilities that are accessible to and usable by persons with disabilities.

Inquiries regarding federal laws and regulations concerning nondiscrimination in education or the College’s compliance with those provisions may also be directed to:

Office for Civil Rights, San Francisco Office
U.S. Department of Education
Old Federal Building
50 United Nations Plaza, Room 239
San Francisco, California 94102-4102
(415) 556-4275
ocr_sanfrancisco@ed.gov

SEXUAL HARASSMENT POLICY

It is the policy of the Cabrillo Community College District to provide an educational, employment, and business environment free of unlawful and unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct of a sexual nature, made by someone from or in the workplace or in the educational setting constituting sexual harassment, as defined and otherwise prohibited by state and federal statutes.

For additional information regarding this policy and the procedures involved, contact Loree McCawley, Director of Human Resources (staff complaints): (831) 479-6217 or Sesario R. Escoto (student complaints), Dean of Student Services, (831) 479-6525.

PLAN DE ACCION SOBRE ACOSO SEXUAL

Es el plan de acción del Distrito de Cabrillo Community College para proveer un ambiente de educación, de empleo y de negocios libres de avances sexuales no deseados, de solicitudes de favores sexuales y de cualquier otro tipo de conducta o comunicación verbal o física que constituya un hostigamiento sexual, según lo definen y lo prohíben los estatutos estatales o federales.

Para más información sobre este plan de acción y sobre los procedimientos al respecto, comuníquese con Loree McCawley, Director de Recursos Humanos (831) 479-6217 o con Sesario R. Escoto, Decano de Servicios Estudiantiles, (831) 479-6525.

DRUG–FREE CAMPUS

It is the policy of the Cabrillo Community College District to maintain a campus free of the possession, manufacture, use, or distribution of controlled substances as listed in the federal Drug Free Schools and Communities Act (DFSCA), which includes, but is not limited to, substances including alcohol, cannabis (marijuana/hashish), hallucinogens, cocaine/crack, amphetamines, and heroin. More information about Cabrillo’s policies, procedures, and resources is available at www.cabrillo.edu/services/health.

SMOKE–FREE CAMPUS

Cabrillo College is a smoke-free environment. In the interest of health and safety for students, visitors, and staff, smoking is prohibited indoors and outdoors at all campus facilities except in designated parking lots. Pursuant to Board Policy 6120.
THE CABRILLO COLLEGE FOUNDATION

Since 1962, the Cabrillo College Foundation has raised private gifts to enhance Cabrillo’s educational and community service programs. Of the 1,400 community colleges in the nation, the Cabrillo College Foundation ranks among the top 2%. The generosity of Cabrillo College supporters has resulted in top state and national rankings in an annual study of college donors conducted by the Council for Aid to Education (CAE), a subsidiary of RAND Corporation.

Local citizens, college staff, faculty, and Cabrillo trustees serve on the foundation’s thirty-one member board, representing all geographic areas of the community. The foundation board and supporters of Cabrillo College provide private support for scholarships, equipment, programs, and facilities. In the last ten years, the Cabrillo College Foundation has raised nearly $20 million dollars for the support of college initiatives.

Last year, the Cabrillo College Foundation raised $2.3 million for Cabrillo’s programs. In addition to numerous campaigns and initiatives each year, the Cabrillo College Foundation supports the following important programs annually.

- **Scholarships:** Private donations to the Cabrillo College Foundation fund all Cabrillo College Scholarships. The Cabrillo College Foundation has the fourth largest scholarship program for community college students. The Cabrillo College Foundation has developed a very large scholarship program which distributes over 500 scholarships equaling $275,000 annually to assist financially needy and academically promising students. Scholarships are generally between $400 and $1,200 per award. Applications for scholarships are due December of each year.

- **Women’s Educational Success (WES):** WES is a special financial aid program funded by private donations to the Cabrillo College Foundation. This endowment provides emergency cash grants for women with a strong commitment to succeed in college. The WES grants are for immediate emergent needs of women. Many recipients are single mothers with very limited resources. The priority is to fund unexpected expenses such as the replacement of a schoolbook, materials needed for a class, or a bus pass. Each year $20,000 is awarded.

- **Cabrillo Advancement Program (CAP):** The CAP program is a combination of innovative mentoring activities, scholarships, parent involvement, Saturday academies, counseling, tutoring, summer institutes, and other family events designed to increase the academic success of 383 CAP students who are socially, educationally, and economically disadvantaged students in local middle and high schools. Participating students graduate from high school and enroll at Cabrillo, receiving a $1,000 scholarship upon enrollment. A full-time Coordinator/Counselor administers the CAP program. CAP is sponsored by Cabrillo College and primarily funded by the Foundation through private donations.

- **Faculty Grants for Student Success:** Grants are awarded to faculty to improve or enhance instruction at Cabrillo College. About $15,000 each year is awarded for faculty projects. The Foundation has the largest Faculty Grant program in the state.

- **President’s Circle:** The President’s Circle is a primary source of unrestricted funds for the Cabrillo College Foundation. The President’s Circle program raises unrestricted funds for the college’s areas of greatest need. President’s Circle members are considered special friends and supporters of the Cabrillo College President.

The Cabrillo College Foundation works with donors to develop planned gifts and bequests, and outright gifts, depending on individual financial planning needs.

The Cabrillo College Foundation is a not for profit 501(C)(3) organization.

For more information:

Melinda Silverstein, Executive Director
Cabrillo College Foundation
6500 Soquel Drive
Aptos, CA 95003
Tel: (831) 479-6338
Fax: (831) 477-5686
E-mail: mesilver@cabrillo.edu
OPEN ENROLLMENT

It is the policy of Cabrillo College that, unless specifically exempted by statute, every course, course section, or class that is reported for state apportionment, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the College and who meets such prerequisites and selection procedures as may be established pursuant to Title 5 of the California Administrative Code, commencing with Section 55200.

ADMISSION REQUIREMENTS

High School Graduates

Any high school graduate or person with a GED or high school equivalent certificate will be admitted to Cabrillo College.

Non-High School Graduates

A person 18 years of age or older who is not a high school graduate will be admitted to the College to pursue general education or to enroll in a specialized vocational program. A student may prepare for transfer to a four-year college or university without the high school diploma. All non-high school graduates should request special counseling from the Counseling Division.

Admission of Minor Students Without High School Diplomas

The Cabrillo College Governing Board may authorize the enrollment of a limited number of eligible minor students each term on a space available basis, who the Board determines would benefit from the educational enrichment opportunities of advanced scholastic or vocational work (courses numbered in the 200 series are not advanced scholastic or vocational courses). It is the intent of the Board to consider the enrollment of eligible minor students in compliance with the district priority admission mandates outlined in Education Code Section 76000 and in the district’s fulfillment of its educational mission. Further, the Board may only authorize the acceptance of eligible minor students, when the work being requested provides course work otherwise not available to the minor student, when the enrollment of the minor student in college work is not in conflict or in lieu of the compulsory school attendance laws of the state, and when the exceptions to allow enrollment of minors is consistent with the philosophy and mission of the College.

These students will receive Cabrillo College credit and their grades will be sent to their high schools.

Concurrent enrollment procedures for high school students: Students whose age or class level is equal to grades 9-12 may register at Cabrillo College for credit courses, as special part-time, full-time, or summer session students.

I. Special Part-Time Student (six units or less)

Enrolled in a public or private high school and must meet each of the following criteria:

1. Written parental or guardian consent, with emergency notification information.
2. Written high school Principal (or designee specified by the Principal) recommendation, consent, and verification that the student:
   a. has the maturity and skill level needed to attend a college;
   b. has not failed this course in high school;
   c. has taken advantage of all the opportunities to enroll in equivalent course(s) at his or her school of attendance. If the high school does not offer the course(s), identify availability to student within the district.
3. Skill level assessment through Cabrillo College assessment process for students from unaccredited private schools or for students taking an English or math course. For other courses without a math or English prerequisite, assessment is recommended.
4. Ability to benefit from advanced scholastic or vocational work as determined by the Cabrillo College Governing Board, which authorizes the Superintendent/President (or designee) to make such judgments.
5. Attend classes for at least a minimum day at his or her school, or in accordance with the high school’s policy.
6. If released from a home school, independent study program, or Charter School, the signature of the appropriate district representative is needed.
7. Written approval of a Cabrillo College Counselor for students in unaccredited private high schools.

II. Special Full-Time Student (more than 6 units)

Enrolled in and/or released from a public or private high school and must meet each of the following criteria:

1. Written parental or guardian consent, with emergency notification information.
2. Written high school Principal recommendation, consent, and verification that the student:
   a. has the maturity and skill level needed to attend a college;
   b. has not failed the courses in high school;
   c. has taken advantage of all the opportunities to enroll in equivalent courses at his or her school of attendance. If the high school does not offer the courses, identify availability to student within the district.
3. Skill level assessment through Cabrillo College assessment process. Assessment is required for any student taking a total of more than six units.
4. Ability to benefit from advanced scholastic or vocational work as determined by the Cabrillo College Governing Board, which authorizes the Superintendent/President (or designee) to make such judgments.
5. If released from a home school, independent study program, or Charter School for a full time program, the signature of the appropriate school district representative is needed.
6. Written approval of a Cabrillo College Counselor.

Students will be expected to provide their own texts, some instructional supplies, and pay fees.

III. Special Summer or Wintersession Student: Special summer or Wintersession students will meet the same criteria as the special part-time or full-time student except that the student is not required to have met criteria I, 2C, and may have received a failing grade in high school.

IV. K-8th Grade Student: Minor students enrolled in K-8th grade districts may attend Cabrillo College for advanced scholastic courses, but only as special part-time students.
Students must meet each of the following criteria:
1. Such courses are not being offered by local school districts and/or any other educational institutions available to the student.
2. Written parental or guardian consent, with emergency notification information.
3. Written school Principal recommendation and consent, and verification that the student:
   a. has the maturity and skill level needed to attend a college;
   b. has not failed this course.
4. Ability to benefit from advanced scholastic or vocational work as determined by the Cabrillo College Governing Board, which authorizes the Superintendent/President (or designee) to make such judgments.
5. If released from a home school, independent study program, or Charter School, the signature of the appropriate school district representative is needed.
6. Skill level assessment through Cabrillo College assessment process if enrolling in math or English classes.
7. Written approval of a Cabrillo College Counselor.

Students will be expected to provide their own texts, some instructional supplies, and pay fees.

OUT-OF-STATE STUDENTS

Out-of-state applicants may be admitted to the College on the same basis as California residents except that they will be required to pay tuition prescribed by the Governing Board to cover the costs of instruction. After an adult student who is eligible to be a California resident has been present in California and has manifested clear intent to become a California resident for at least one year and one day prior to the first day of the term, he/she may apply for reclassification as a California resident. State law requires consideration of financial independence for students seeking reclassification.

RESIDENCY REQUIREMENTS

All students not meeting the requirements below will be classified as “nonresidents” and are subject to nonresident tuition and enrollment fees.

Students shall receive resident student classification if they qualify under one of the following conditions:
1. If the student (age 18) and the student’s parent or legal guardian have resided in California for at least one year and one day prior to the beginning of the semester, and can prove California residency by providing documents such as California tax returns or a California driver’s license to confirm that date.
2. If the student (19 or over) has resided in California for at least one year and one day prior to the beginning of the semester, and can prove California residency by providing documents such as California tax returns or a California driver’s license to confirm that date.
3. If the student is under 18 years of age and his/her parent or legal guardian has resided in California for at least one year and one day prior to the beginning of the semester, and can prove California residency by providing documents such as California tax returns or a California driver’s license to confirm that date.

In addition, if the student is not a United States citizen, or permanent resident, or on a visa that allows the student to establish California residency, then the student must provide verification that he/she has applied for residency with the United States Citizenship and Immigration Services (USCIS) at least one year and one day prior to the beginning of the semester.

Beginning January 1, 2002, AB 540 required that certain nonresident students who have completed three years of high school in California and received a high school diploma or equivalent, be exempted from paying nonresident tuition.

CALIFORNIA RESIDENCY STATUS CHANGE

Students who have been out-of-state residents must submit a new residency statement in order to change their status. Residency documents should be submitted to Admissions and Records the semester prior to change of status. Out-of-state residency will not be changed automatically. State law requires consideration of financial independence for students seeking reclassification.

CONFIDENTIALITY STATEMENT

Under Section 49061 of the Education Code, parents of community college students do not have a right of access to their children’s student records, regardless of whether the student is under the age of 18. Also, under federal law (Section 1232g of Title 20 of the United States Code), there is a general right of parental access to student records, but not for college students, regardless of age.
INTERNATIONAL STUDENTS

1. Admission

All applicants for admission on F-1 visas must submit the following documents to the International Student Office by the application deadline. The application deadline for fall semester is June 20, 2008. The deadline for spring semester is December 10.

a. A completed international student application form (obtainable from the International Student Office).

b. A $60 non-refundable application fee.

c. Transcripts of secondary (and post-secondary, if any) school or college work completed. These transcripts must be official and in English.

d. Test of English as a Foreign Language (TOEFL) with a score of 450 or higher, paper-based or 133 computer-based.

e. A financial statement which indicates the student has the means to support his/her costs of attendance (meaning tuition and living expenses) either from personal, family, or governmental sources.

f. Proof of health and accident insurance. Students who do not currently have adequate health insurance must purchase a plan available through Cabrillo College.

*Exceptions: Students on B, H, or J visas need only submit the application and the $60 application fee.

2. Rules and Regulations

a. Payment of Tuition: Tuition is due and payable at the time of registration for classes. Registration is not complete until the full tuition is paid.

b. English Placement: Entering international students are required to take an Assessment Test administered by the Cabrillo College Assessment Center. The results of the test will determine the proper placement for each student in the English course sequence.

c. Study Load: International students on F-1 visas must carry at least 12 units per semester. The College must report to the U.S. Immigration and Naturalization Service if a student has withdrawn from college or is taking less than a full program.

d. Employment: International students attending the College on F-1 visas are not permitted to work without prior approval. Consult the International Student Office for details and procedures.

e. Change of Status: Any change in immigration status must be discussed with the International Student Office.

f. Arrival: Students admitted on an F-1 visa must report to the International Student Office by the date indicated on the I-20 form. Failure to do so may result in the revocation of the I-20.

g. Change of Address: Students must inform the International Student Adviser and the Office of Admissions and Records of all address and telephone changes. A current, local address must always be on file at the College.

h. Illness: Students must inform the International Student Office of any extended illness (more than three consecutive class meetings) by telephone or mail.

i. Renewal of Visas, Passports: It is the student’s responsibility to maintain a valid, current passport and visa.

j. Housing: Cabrillo College does not have dormitory facilities. To locate satisfactory housing, students should arrive well before classes begin. The International Student Office maintains a limited list of available housing and homestay information.

k. Termination of Attendance: The College reserves the right to terminate the enrollment of any international student whose academic progress, observance of college rules and regulations, or personal conduct falls below acceptable standards.

The International Student Office is located in Room 118. For help, phone (831) 479-6200.

MATRICULATION: STUDENT SUCCESS PROCESS

Matriculation is a process that supports the student from initial enrollment at Cabrillo College through the completion of his/her educational goal. Matriculation is a partnership between the College and the student and is a part of the services offered at all community colleges. We commit to provide the following services through Matriculation:

- A clear and accessible ADMISSIONS process
- An ORIENTATION to the college, the services we provide, and the policies in place that support the student
- ASSESSMENT of academic skills through placement testing in math, English, and reading
- COUNSELING, ADVISING, AND EDUCATIONAL PLANNING so that students enroll in the correct courses and complete their academic program in the shortest period of time
- FOLLOW-UP SERVICES when students are having academic difficulties and need some additional support

YOUR PART OF THE PARTNERSHIP IS TO:

- Complete the placement assessment
- Participate in an orientation
- Declare an educational goal (A.A. or A.S. degree, certificate, transfer to a four-year college or university, etc.) in a reasonable amount of time
- Make predictable progress toward a stated goal
- Meet with staff and utilize College support services when needed.

ADMISSIONS PROCESS – See additional information in this Catalog, the Schedule of Classes, and the Cabrillo website, www.cabrillo.edu for methods of and locations for enrollment and registration.

PLACEMENT ASSESSMENT – To a large degree, success in college is dependent upon students enrolling in courses that match their abilities and skills. These are determined through different placement assessments in math, reading, and English that can be taken on the computer or in a group setting with paper and pencil. These are offered at the Assessment Center at the main campus in Aptos, the Watsonville Center, and at local high schools. Additional considerations, such as previous courses, grades, and experience are included in the calculation of the course placement

Placement assessment is needed for all new students who intend to:

- earn a certificate or associate degree;
- enter their first college English or math course;
- enroll in more than six units; or
- satisfy math, reading, and English prerequisites.

ASSESSMENT SERVICES

The Assessment Center is located in Room 1006 on the Aptos Campus. Schedules of assessment dates and times can be found in Admissions, Building100, The Assessment Center, Room 1006, the Watsonville Center, or online. For more information, and practice exams in math, call (831) 479-6165 or go online to www.cabrillo.edu/services/assessment.
Additional courses may also require that a student read, write, or analytically compute at a certain level before enrolling in a particular course. If this is so, a course will have a prerequisite. Successfully completing prerequisites and corequisites is required. See this Catalog, the Schedule of Classes and the Cabrillo webpage, www.cabrillo.edu for more information. A counselor can also assist with information on prerequisites and corequisites.

Some scores on an assessment test may indicate the need for further assessment for possible learning disabilities. There are excellent campus resources for these services. A counselor can provide information or a student can contact the Learning Skills Program in Room 1073.

**ORIENTATION**—This service is available in person, online, or through a credit class (CG 51.) The information will assist the student in enrolling in the correct courses and becoming familiar with college policies, processes, and services.

**EDUCATIONAL ADVISING**—After completing orientation, students should meet with a counselor to develop an "education plan" for course selection and easy registration. This is a critical component of the Matriculation process and can guide and predict time and courses needed for completion of the educational goal.

**FOLLOW-UP SERVICES**—Helping a student stay in college and reach his/her goal is important to us. There are many reasons students fall behind: enrolling in too many units, not balancing college, work, and family responsibilities, the increasing cost of attending college, and many more realities of life. There are two types of probationary categories that can impact your status at Cabrillo.

- **Academic Probation** is triggered when your grades fall below a 2.0 GPA. This moves you from satisfactory academic standing.
- **Progress Probation** is triggered when you have dropped courses with a W or I or have not completed courses (NC) for more than 50% of the total number of units in which you have enrolled as a student at Cabrillo.
- **Dismissal** is triggered after two semesters of academic or progress probation.

We want to work with a student before he/she reaches this point. See a counselor to learn about additional resources. See this Catalog, the Schedule of Classes or the Cabrillo website, www.cabrillo.edu for more information.

The above services are a part of the Matriculation process. You may take advantage of them or not. If you decide not to, you will need to complete a Request to Waive Matriculation Services. This will waive your participation in assessment, orientation, or counseling. If you waive assessment, you will be placed in the lowest level of math and English unless you provide documentation of prior successful coursework or you challenge the course prerequisites, if they apply. Forms are available online at www.cabrillo.edu for waiving services and challenging pre- or corequisites. Click on the A-Z Index, Click on “M”, and scroll down to Matriculation. Click on left side of page for PDF forms. Both are downloadable. Additional locations for forms include Admissions and Records (Aptos and Watsonville), and the counseling offices in Building 100 and the Office of Instructional Development/Matriculation in the Student Activities Complex, upstairs.

### EXEMPTION FROM MATRICULATION SERVICES

Some students are exempt from matriculation requirements. They include students who:

- are enrolled in fewer than six (6) units;
- have accumulated fewer than 12 (transfer) units;
- have an A.A./A.S. Degree or higher;
- have already satisfied the required pre or corequisite through other documented means. A student needs to meet with a counselor to have the documentation entered into the computer. See additional information in this Catalog, the Schedule of Classes, and on the Cabrillo website www.cabrillo.edu.

We encourage students to take advantage of the matriculation services, as they will progress students towards their goals in the fastest amount of time.

### REGISTRATION

**Application for Admission—New Procedures**

Applications for Admission are available on the Cabrillo College website (www.cabrillo.edu), in the Schedule of Classes, or from Admissions and Records at Aptos, Scotts Valley, or Watsonville. Paper applications may be mailed, faxed, or delivered in person to Admissions and Records. New and re-entering students should submit applications early in the registration cycle to be eligible for early registration and to have the best opportunity to get needed courses. Each full-time and part-time student must have a completed application on file. **Applications are now active for one year for college students regardless of whether the student registers.**

**Registration**

After an application has been submitted and processed by Admissions and Records, students are encouraged to participate in early registration. Early registration can be accomplished using Cabrillo College’s online registration, WebAdvisor, at www.cabrillo.edu, or telephone registration, HawkTalk (831) 477-5678. All students must observe the registration, attendance, and withdrawal policies and procedures described in the Catalog and Schedule of Classes. Each Schedule of Classes has specific registration information.

Before attending any class, each student must have completed registration. Credit will not be given for courses in which a student is not registered.

Cabrillo’s registration priority is as follows:

- Disabled Student Program and Services, and Extended Opportunity Program and Services
- Continuing students with 30-90 Cabrillo units (Sophomore)
- Continuing students with 1-29 Cabrillo units (Freshman)
- Continuing students with 91 or more Cabrillo units
- New and re-entering students
- Concurrent high school students

### Majors with Special Enrollment Requirements

Admission into Cabrillo College does not guarantee enrollment into certain programs. The following programs have enrollment prerequisites and procedures which must be completed independently from college admission: Dental Hygiene, International Student Program, Nursing, and Radiological Technology.
Transcripts of Previous Education

Applicants who have attended high school within the past five years should have an official transcript sent directly to Admissions and Records in Aptos. If the applicant is not a high school graduate, a transcript of all work completed should be requested from the last high school attended. If the applicant has enrolled in any other collegiate institution before applying at Cabrillo College, an official transcript showing all work undertaken is required. Students are allowed to register in some courses without transcripts on file. However, transcripts are used for prerequisites, transfer, and graduation and are required for financial aid recipients. All transcripts submitted become the permanent property of Cabrillo College, and copies of these transcripts cannot be sent elsewhere. Official transcripts are required for certificates of proficiency, associate degrees, and financial aid grade point average verification.

Advising

To assist students in attaining their educational goals, the College provides counseling services. Students enrolling in more than six units are required to participate in placement assessment services and should also meet with a counselor.

Late Registration

Students may register for full-term courses during late registration, which occurs during the first two weeks of instruction in fall or spring semester. Registration continues for short-term courses until the day before the first class meeting. Assessment results and signed permission of the instructor are required. Consult the summer or Wintersession Schedule of Classes for the late registration dates of these terms.

If students make changes in their class schedule before the term, they should make the changes using HawkTalk (831) 477-5678, or WebAdvisor (www.cabrillo.edu). Once the term begins, students can drop courses on HawkTalk or WebAdvisor (www.cabrillo.edu), but need to add by getting add slips from instructors and registering/adding courses in person. No addition of classes may be made after the last day to add by getting add slips from instructors and registering/adding courses in person. Required are prerequisites, transfer, and graduation and are required for financial aid recipients. All transcripts submitted become the permanent property of Cabrillo College, and copies of these transcripts cannot be sent elsewhere. Official transcripts are required for certificates of proficiency, associate degrees, and financial aid grade point average verification.

HONORS

Cabrillo College provides opportunities for student enrichment and recognition through an honors program that: 1) promotes academic excellence; 2) benefits students of exceptional academic preparation, ability, creativity, or motivation; and 3) enhances faculty curriculum development through close involvement in the teaching of such students.

Honors designated coursework shall extend or deepen students' knowledge of a particular field or permit students to pursue learning beyond the scope of existing courses. Thus, honor students will be challenged and encouraged to fully realize their potentials and abilities.

Honors work in a course requires more intensive and/or extensive study. The instructor and student must agree in writing to this individual honors coursework. Forms for Subject 22 and Honors Option are available from faculty.

Honors Option

The Honors Option is available in all transfer courses and courses in vocational and technical degree programs at the instructor's discretion. Students electing the Honors Option will complete an independent project in the subject matter of choice and provide a written and/or oral project report. This independent project is completed in addition to the regular coursework required of all students enrolled in the class and is the approximate equivalent of one additional unit.

Only outstanding, highly motivated students with a record of superior performance may take advantage of the Honors Option. The student is responsible for providing the instructor with appropriate records to support eligibility. Honors students are expected to excel in the regular requirements of the course.

The instructor and student must complete an Honors Option agreement form, which includes a concise statement of the proposed project, a brief summary by the student upon completion of the project, and an evaluation of the project by the instructor and student. The completed and signed Honors Option Agreement must be submitted to Admissions and Records at Aptos along with the instructor's final grades. The designation “Honors” will be noted for the course on the student's transcript.

Honors Special Studies

Honors Special Studies (Subject 22) extends or deepens a student's knowledge of a particular field. Subject 22 is a unique course, receiving a letter grade and honors designation on the transcript. It is an appropriate alternative when the material to be studied surpasses existing course content.

President's Scholar Honors

Students who earn “honors” in four or more courses (either Honors Option or Honors Special Studies) spread over three or more disciplines may apply to the Honors Coordinator for “President’s Scholar” honors. An overall GPA of 3.25 in 60 units or more, 80% of which are transferable, will be required for this award. Additionally, at least 30 of the units and all of the four honors courses must be completed at Cabrillo College.

Classification of Students

A freshman has earned less than 30 semester units of credit.

A sophomore has earned 30 units of credit, or more, but has not completed all course and unit requirements for the Associate in Arts or Associate in Science Degree.

A degreed student has already completed all courses and unit requirements for the Associate in Arts or Associate in Science Degree or higher.
Student Right-To-Know

In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of our college district to make available its completion and transfer rates to all current and prospective students. Beginning in fall 2002, a cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students were tracked over a three-year period. Their completion rate was 31.5% and transfer rate was 24.5%. These rates do not represent the success rates of the entire student population at the College nor do they account for student outcomes occurring after this three-year tracking period.

Based upon the cohort defined above, a Completer is a student who attained a certificate or degree or became ‘transfer prepared’ during a three year period, from fall 2002 to spring 2005. Students who have completed 56 transferable units with a GPA of 2.0 or better are considered ‘transfer-prepared’. Students who transferred to another post-secondary institution, prior to attaining a degree, certificate, or becoming ‘transfer prepared’, are transfer students.

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Based upon the cohort defined above, a Completer is a student who attained a certificate or degree or became ‘transfer prepared’ during a three year period, from fall 2002 to spring 2005. Students who have completed 56 transferable units with a GPA of 2.0 or better are considered ‘transfer-prepared’. Students who transferred to another post-secondary institution, prior to attaining a degree, certificate, or becoming ‘transfer-prepared’ during a five semester period, from spring 2003 to spring 2005, are transfer students.

http://srtk.cccco.edu/411/02index.htm

Change of Major

A student may change his/her major with the aid of a counselor. A student who changes a major may need additional time to complete graduation requirements.

Study Load/Excess Units

A. In order to meet graduation requirements in four semesters, the student must complete an average of 15 units of credit each semester. Students may register for up to 18.9 units without permission. A student registering for 19 to 23 units must receive permission. Twelve units qualify students for full-time status in fall or spring. Twenty-three units is the maximum in fall or spring semesters. See the Schedule of Classes for summer or Wintersession maximums.

B. The following criteria will be considered in the petition for excess units:
   1. Full-time student status the previous semester;
   2. A “B” or better average the previous semester;
   3. Difficulty level of the courses involved;
   4. Full- or part-time employment;
   5. Past record of withdrawals, no credits, or incompletes.

C. A student wishing to carry excess units (19-23) should meet with the following:
   1. A counselor who will issue approval; if denied, the student may appeal to:
   2. Vice President, Student Services; if denied, the student may again appeal to:

Unit of Credit

A standard college unit of credit represents a minimum three hours of the student’s time each week: one hour of scheduled classroom lecture or recitation and two hours in outside preparation. A longer time is scheduled for laboratory or technical courses where more of the work is done under classroom supervision.

Auditing Courses

Students may audit specified courses in Physical Education and Art after enrolling in these courses the maximum times allowed. A student may audit a course under the following conditions:

1. The course is approved in advance as one of the credit courses for which auditing is permissible;
2. The student who wishes to audit the course has no other option available by which to enroll in the course;
3. The minimum course enrollment of regularly enrolled students has been met;
4. All regularly enrolled students have been given priority, so that the student who wishes to audit is not replacing a regularly enrolled student or causing the course enrollment to exceed the maximum announced class size;
5. The instructor of the course agrees to accept the student on an audit basis;
6. The instructor establishes with the student the minimum performance and attendance standards for participation in the course;
7. No student auditing a course shall be permitted to change his or her enrollment in that course to receive credit for the course.

The Request to Audit form, with instructions, is available from the Cabrillo Extension Office. There is a $15 per unit auditing fee and possible instructional materials fee. The option to audit a specific class is revocable at any time it is deemed to be in Cabrillo’s best interest.

FEES

MANDATORY FEES

Enrollment Fees

Enrollment fees are set by the California Legislature for all community colleges and are subject to change. Enrollment fees are currently $20 per unit for all California residents. For a fee schedule, go to the Cabrillo website: www.cabrillo.edu, or contact Admissions and Records (Financial aid programs are especially important. See the Financial Aid section of this Catalog.)

Health Services Fee

All students will be charged a health services fee of $15 in the fall and spring semesters and $13 in summer and Wintersession. Health Services provides students with medical services, health counseling, crisis and personal counseling, and referral to community resources. Services include: first aid and medical services, crisis counseling, health education and information, TB testing, strep throat tests, pregnancy tests, blood pressure checks, laboratory tests, free condoms, physical exams, counseling by appointment, and HIV testing.

Education Code Section 376355 allows exemption from this fee solely to those students who depend upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination or organization, or for students attending Cabrillo under an approved apprenticeship training program. BOG-waived students are required to pay this fee.
Student Center Fee

This fee was approved by a Cabrillo College student body election, and it is designated solely for the purpose of funding a new student center. The fee is $1 per unit for a maximum of $5 per semester and is not to exceed $10 per academic year. The academic year begins with the fall semester and ends with the spring semester. A recipient of benefits under the Temporary Assistance to Needy Families (TANF)/CalWORKS program, the Supplementary Security Income/State Supplementary program, or General Assistance program may have this fee waived. BOG-waived students are required to pay this fee.

Student Representation Fee

California Assembly Bill 2576 authorizes that a one-dollar ($1) mandatory fee may be collected from community college students during registration. The Cabrillo College Associated Student election of May 1989 resulted in approval for Cabrillo College to assess this fee. This mandatory fee is collected to support student affairs representatives to lobby for student rights before local, state, and federal governing agencies or bodies. This fee may be waived for religious, political, financial, or moral reasons by submitting a written statement with the payment of registration fees.

OPTIONAL FEES

Bus Pass

Every student may purchase a bus pass during or after registering. It is a great bargain compared to the daily bus fare. The bus pass fee for fall or spring is $55 per semester. Bus passes for Wintersession are $10, and summer bus passes are $15.

Parking Fee

This fee is optional. A student may purchase a parking permit for $40 ($20 per term for BOG students). A student who does not purchase a parking permit can pay $2 per day to park in a student parking lot.

A. Parking Permit Regulations

1. Each student must have a parking sticker attached to his/her vehicle if parking on campus.
2. Parking is allowed in any lot except red curb zones, staff and visitor reserved zones, and spaces reserved for people with physical disabilities.
3. Citations are issued for parking violations.
4. Park in marked spaces only.
5. Parking permits are valid for both day and evening.
6. Parking permit is to be displayed in bottom driver’s side of the front windshield.

Children’s Center Fund

An optional $2 fee was approved by student government to assist Cabrillo College students with campus childcare. Every $2 collected provides direct childcare assistance to students who would otherwise be unable to enroll in classes here at Cabrillo College.

Out-of-State Students/Nonresident Student Fees

Students who have not established California residency are also charged nonresident or international student tuition (nonresident student fee plus the capital outlay fee) in addition to the fees listed above. The fee amount is determined each year by the Cabrillo Governing Board, according to the provisions of Education Code Section 76140. For academic year 2007-2008, students from other states pay nonresident tuition of $174 per unit; nonresidents who are citizens and residents of a foreign country pay $178 ($174 nonresident tuition plus $4 capital outlay fee) per unit, in addition to all fees (including enrollment fees) listed for California residents.

The capital outlay fee may be waived for economic hardship, or for victims of persecution or discrimination in their home countries.

Fee Refunds

Students may claim a refund or reversal of charges for:

1. Classes canceled by the College.
2. A reduced unit load of full-term courses by the deadline (during the first two calendar weeks following the commencement of a semester of instruction) in fall or spring. Consult the summer or Wintersession Schedule of Classes regarding deadlines. Reference Title 5, 58508.
3. A reduced unit load within the 10% deadline for short-term courses (deadlines are available from Admissions and Records at Aptos or Watsonville, or the instructor). All summer and Wintersession courses are short-term courses.
4. Fees collected in error.

If a student is eligible for a refund and the fees were paid by a federal or state financial aid program, the refund will be returned to the appropriate financial aid program.

A $10 processing fee will be charged for all refunds, except for canceled classes. If the refund is $10 or less, it will be applied to the processing fee.

Note: Only students who officially drop their courses by the appropriate deadlines will receive refunds or reversals of charges. Students dropped by faculty will not receive refunds or reversals of charges.

Delinquent Balances: Students with delinquent balances will not be able to add/register or drop courses, or receive transcripts. Students with delinquent balances may also be reported to the California Franchise Tax Board.

Instructional Materials Policy

Cabrillo College may require students enrolled in credit and non-credit courses and programs to buy certain materials, including but not limited to textbooks, tools, equipment, and clothing, if:

1. The instructional and other materials are used in the production of an “end product” that has continuing value to the student outside the classroom, or
2. The instructional and other materials required for the class have a continuing value to the student outside of the classroom.

Associated Students of Cabrillo College (ASCC)

Students are members of the Associated Students of Cabrillo College. There is a Student Activities Card (SAC) fee that is expected, but not mandatory. The cost to attend and participate in ASCC activities is free or discounted to those who pay the Student Activity Card fee. All others will be subject to an admission charge.
Textbooks and Supplies
Students must furnish their own textbooks, workout clothes for physical education classes, locks, and supplies.

Laboratory Breakage
Students are responsible for any breakage or loss of equipment assigned to their use.

Returned Check Service Charge
All returned checks are subject to a service charge of $15.

CROSS ENROLLMENT

UCSC, CSU MONTEREY BAY, AND SAN JOSE STATE
Cabrillo students may cross enroll at the University of California, Santa Cruz (UCSC), California State University, Monterey Bay (CSU Monterey Bay) and San Jose State University. Students may take one course. Fees are set by the State Legislature and are subject to change. Enrollment will be on a space available basis. To meet eligibility requirements Cabrillo College students need to:

- have completed at least one term (as a matriculated student) at Cabrillo
- be simultaneously enrolled for at least 6 units at Cabrillo
- have earned at least a 2.0 grade point average at Cabrillo
- have paid appropriate fees at Cabrillo
- have completed appropriate academic preparation as determined by the host campus
- be a California resident (pay California resident fees).

Applications for cross enrollment are available from Admissions and Records at Aptos or Watsonville. Additional information can be obtained by calling UCSC at (831) 459-4412 or at Reg.UCSC.edu or CSU Monterey Bay at (831) 582-3518 or San Jose State at (408) 924-1000.
ACADEMIC FREEDOM

Academic freedom of instructors and students is essential to the mission of the College in order to stimulate intellectual curiosity and inquiry, self-questioning, and to foster the search for truth. To this end, faculty academic freedom shall be assured, subject to limitation imposed by law, by the academic standards of the College and the state, by the rights of students to be free from any reprisals, and by the students’ rights to an objective presentation of the subject matter.

GRADING POLICY

Grades and Grade Points

Course instructors determine the grade awarded to each student. The instructor’s determination is final in the absence of mistake, fraud, bad faith, or incompetence.

Course accomplishment is indicated by seven grades, five of which are passing. Each grade and its value in grade points are shown below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Grade Points per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing, less than satisfactory</td>
<td>1</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>Credit, satisfactory or better</td>
<td>0</td>
</tr>
<tr>
<td>NC</td>
<td>No Credit, less than satisfactory; completed course without achievement (See progress probation/dismissal policy)</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal (by the 13th semester week) (see progress probation/dismissal policy)</td>
<td>0</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
<td>0</td>
</tr>
<tr>
<td>RD</td>
<td>Report Delayed</td>
<td>0</td>
</tr>
<tr>
<td>MW</td>
<td>Military Withdrawal</td>
<td>0</td>
</tr>
</tbody>
</table>

Grade Point Average

A student’s grade point average is calculated by dividing the total number of grade points by the total number of units attempted. Grades of “F” are considered in determining the grade point average. Grades earned in non-degree applicable courses are not included in calculating the GPA. Credit (CR) no credit (NC), and grades earned in non-degree applicable courses are not included in calculating the grade point average.

Credit/No Credit Grading System

The purpose of credit/no credit grading is to provide a more appropriate method of evaluation in courses taught for the purpose of establishing a minimum level of proficiency in various subject areas or to evaluate the subjects where fine gradations of achievements are not meaningful. This system is not intended to be used by students in their major courses unless courses are only taught in a credit/no credit mode.

The following regulations implement these two objectives:

1. A credit/no credit grade may be arranged between the student and the instructor in any course for which the option is available. The arrangement must be made within the first 30% of the semester for a full-term course or 30% of the class meetings in a short course.

2. Courses taken by credit/no credit are disregarded in determining a student’s grade point average, but shall be considered in progress probation and dismissal.

3. A student may not apply more than 12 units of courses taken by credit/no credit grading system toward fulfillment of requirements for the A.A. or A.S. degrees. These 12 units may be in addition to units completed in courses graded credit/no credit only.

4. A credit grade is equivalent to a passing grade of “C” or better, indicating satisfactory completion of course requirements. A no credit grade is equivalent to a “D” or “F,” indicating less than satisfactory completion of course requirements.

5. A student should check with a college counselor concerning transfer of a credit/no credit grade to a four-year college or university.

Incomplete Work

The grade “I” may be recorded when students doing passing work and regularly attending at least 75% of a course are unable to take the final exam or otherwise complete the course because of illness or other unforeseeable emergency and justifiable reasons. It is the student’s responsibility to clear the incomplete grade within one year. A student may not clear an incomplete grade by re-enrolling in the course. The condition for removal of the “I” shall be stated by the instructor in the incomplete contract. This contract shall contain the conditions for removal of the “I” and the default grade should the incomplete course requirements never be met. It will be sent to the student, with a copy to remain on file in Admissions and Records at Aptos until the “I” is made up or the time limit has passed. A final grade shall be assigned when the work stipulated has been completed and evaluated or when the one year for completing the work has passed. A student may petition to the instructor or division, with a copy to the Director of Admissions and Records, for an extension due to unusual circumstances. The “I” shall not be used in calculating units attempted or for grade points.
“W” Grades

The deadlines listed below are for full-term semester courses. Short courses (including all summer and Wintersession courses) have shorter individual deadlines, which may be obtained from Admissions and Records at Aptos or the Watsonville Center, or from instructors.

After the second week of the semester, a student who wishes to withdraw from a course should first consult with the instructor.

If the withdrawal is during the first four weeks of a semester for a full-term course, the course name and number will not appear on the student’s permanent record.

Beginning with the fifth week of a semester and through the sixth week, a student who withdraws from a full-term course will receive a “W” grade. The course name and number and this grade will appear on the student’s permanent record.

Beginning with the seventh week of a semester and through 75% of the term, the instructor of a student who withdraws may issue the student a “W,” an “NC,” or “F” grade. The course name and number and the grade will appear on the student’s permanent record.

After 75% of the course has elapsed, no “W” will be issued and the student will receive a grade.

If a student withdraws from school due to extenuating circumstances such as verified cases of accident, illness, or other circumstances beyond the student’s control, the instructor will use discretion in granting the student an “NC,” “F,” or “W” grade.

Instructors have the sole responsibility for granting or changing all grades in their courses. If instructors are no longer available, incomplete grades may be completed only by Division Deans, based on grade records and subsequent evaluation.

“MW” Symbol

The “MW” shall be assigned only for students who are members of an active or reserve military service and who receive orders compelling a withdrawal from courses. Upon verification of such orders, the symbol may be assigned at any time after the period established by the Governing Board during which no notation is made for withdrawal. The “MW” shall not be counted in progress probation and dismissal calculations.

Grade Changes

When grade changes are made because of the alleviation policy or authorized repeating of a course, appropriate annotations shall be entered on the student’s permanent record in such a manner that all work remains legible, insuring a true and complete academic history.

Good Standing

A student will be considered in good standing if the overall grade point average is 2.0 or higher. Students who plan to transfer to a four-year college or university or obtain an Associate Degree must have a cumulative grade point average of 2.0 or higher. Excessive No Credit, Incomplete, and Withdrawal grades will place a student on probation.

Transcript of Cabrillo Work

Upon written request of a student, an official transcript of his/her record will be prepared by the Admissions and Records Office. Two transcripts of the student’s record will be processed without charge. After the first two, there is a $3 charge. Students who need transcripts within three to five working days pay an additional rush fee of $7. Students may request a list of courses and grades for $1. Also, there is a $1 charge for replacing registration statements that list current coursework. Students may print their own registration schedules using WebAdvisor: My Class Schedule. Transcripts will not be provided if there is a delinquent charge on the student’s record.

Scholastic Honors

“Honorable Mention” shall be noted for those students who graduate with an Associate Degree or who complete a Certificate of Proficiency with a 3.0 to 3.49 grade point average (GPA). “Honors” shall designate those students who achieve 3.5 to 3.74 GPA.

Those students who graduate with a 3.75 to 4.0 GPA shall be recognized as having achieved “High Honors.”

CREDIT BY EXAMINATION

As authorized by the California Education Code, Section 78207, credit by examination may be granted if all the following conditions are met:

1. The course is listed in the current Cabrillo College Catalog.
2. The student receiving the credit is currently registered in class(es), is in good standing (2.0 grade point average), and has completed a minimum of 12 units at Cabrillo.
3. Those students who achieve 3.5 to 3.74 GPA.
4. Credit has not been granted previously at the same or more advanced level if the course is in a departmental sequence based on prerequisites.
5. Credit has not been granted previously at the same or more advanced level if the course is in a departmental sequence based on prerequisites.
6. Arrangements for the administration of the credit by examination have been made with an authorized instructor who will agree to administer the examination.
7. The student completes an appropriate Credit by Examination request form, which may be obtained from Admissions and Records at Aptos or Watsonville. The student pays for the units as for other units of credit.
8. The fee for the course is waived for high school students petitioning for credit by examination for articulated high school courses.
9. The student has not previously taken the course and received a substandard grade. Only one credit by exam attempt per course is allowed.

Examinations will be comprehensive enough to reflect the appropriate depth and breadth of the material normally covered in the course for which credit is requested. If the course challenged is part of a sequence, the student will be examined at the highest level s/he chooses and will not receive credit by examination for the lower levels.

Upon completion of the examination, the instructor in charge will verify the number of units to be received and assign an appropriate grade, that will then be recorded on the student’s record.

The student’s grade shall be recorded on his/her academic record, even if it is substandard. The student shall indicate before taking the examination whether s/he wishes to exercise a credit/no credit option. An examination may not be repeated.
The student’s permanent record shall be clearly annotated to reflect that credit was earned by examination.

A list of courses that can be taken on this basis is in the Office of the Vice President, Instruction.

Transfer students should check with their receiving institutions about policies for using credit by examination scores and credits toward meeting admission and/or graduation requirements. Credit by Examination cannot be granted at both the community college and at the four-year college or university, and in some cases the four-year colleges and universities grant more units for credit by examination scores than do the community colleges.

### ADVANCED PLACEMENT

Cabrillo College will grant college credit toward an A.A./A.S. Degree to students who earn scores of 3, 4, or 5 on advanced placement examinations given by the College Entrance Examination Board. Students must send an official copy of the AP result to Cabrillo if it is not posted on their official high school transcript. It is the responsibility of the student to see a counselor and petition for the use of AP credit toward a Cabrillo College degree.

To use AP results for completion of GE areas for transfer using either the IGETC or CSU GE, the student must request GE Certification from Cabrillo upon transfer. To determine how AP credits will be used at the four-year school for major preparation, please consult the catalog of the transfer school or see a Cabrillo College counselor. Duplicate credit will not be granted to students who have AP scores and take the equivalent college course. Credit will be granted for general education certification according to the following list.

<table>
<thead>
<tr>
<th>Test Taken</th>
<th>CSU/Cabrillo Units Area</th>
<th>IGETC Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art (History)</td>
<td>3 SEM C1</td>
<td>3A-(AH 11)</td>
</tr>
<tr>
<td>Biology</td>
<td>3 SEM B2</td>
<td>*SB-(BIO 11A)</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6 SEM B1 &amp; B3</td>
<td>*SB-(CHEM 2)</td>
</tr>
<tr>
<td>Economics: Macro</td>
<td>3 SEM D2</td>
<td>4B-(ECON 1A)</td>
</tr>
<tr>
<td>Economics: Micro</td>
<td>3 SEM D2</td>
<td>4B-(ECON 1B)</td>
</tr>
<tr>
<td>English: Lang/Comp</td>
<td>3 SEM A2</td>
<td>**1A-(ENGL 1A)</td>
</tr>
<tr>
<td>English Lit/Comp</td>
<td>6 SEM A2 &amp; C2</td>
<td>**1A-(ENGL 1A)</td>
</tr>
<tr>
<td>French: Language</td>
<td>6 SEM C2</td>
<td>3B-(FRN 3 or 4)</td>
</tr>
<tr>
<td>French: Literature</td>
<td>6 SEM C2</td>
<td>3B-(FRN 25 or 39C)</td>
</tr>
<tr>
<td>German Language</td>
<td>6 SEM C2</td>
<td>3B-(GRMN 3 or 4)</td>
</tr>
<tr>
<td>Gov’t &amp; Politics: US</td>
<td>3 SEM D8</td>
<td>4H-(PS 1)</td>
</tr>
<tr>
<td>Gov’t &amp; Politics: Comp</td>
<td>3 SEM D8</td>
<td>4H-(PS 2)</td>
</tr>
<tr>
<td>History: European</td>
<td>3 SEM D6</td>
<td>4F-(HIST 4B)</td>
</tr>
<tr>
<td>History: U.S.</td>
<td>3 SEM D6</td>
<td>4F-(HIST 17B)</td>
</tr>
<tr>
<td>Latin: Vergil</td>
<td>3 SEM C2</td>
<td>N/A-not at Cabrillo</td>
</tr>
<tr>
<td>Latin: Literature</td>
<td>3 SEM C2</td>
<td>N/A-not at Cabrillo</td>
</tr>
<tr>
<td>Mathematics: Calc AB</td>
<td>3 SEM B4</td>
<td>2A-(MATH 5A)</td>
</tr>
<tr>
<td>Mathematics: Calc BC</td>
<td>3 SEM B4</td>
<td>*2A-(MATH 5B)</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3 SEM C1</td>
<td>3A-(MUS 6)</td>
</tr>
<tr>
<td>Physics B</td>
<td>6 SEM B1 &amp; B3</td>
<td>*SA-(PHYS 2A)</td>
</tr>
<tr>
<td>Physics C (M)</td>
<td>3 SEM B1 &amp; B3</td>
<td>*SA-(PHYS 11)</td>
</tr>
<tr>
<td>Physics C (EM)</td>
<td>3 SEM B1 &amp; B3</td>
<td>*SA-(PHYS 11)</td>
</tr>
<tr>
<td>Psychology</td>
<td>3 SEM D9</td>
<td>4I-(PSYCH 1)</td>
</tr>
<tr>
<td>Spanish: Language</td>
<td>6 SEM C2</td>
<td>3B- (SPAN 3 or 4)</td>
</tr>
<tr>
<td>Spanish: Literature</td>
<td>6 SEM C2</td>
<td>3B- (SPAN 25 or 26)</td>
</tr>
<tr>
<td>Statistics</td>
<td>3 SEM B4</td>
<td>2A-(MATH 12)</td>
</tr>
</tbody>
</table>

The following restrictions apply:

1. **Students may use only one AP exam in English to satisfy one IGETC requirement. Students transferring to a UC campus receive a total of 8 quarter/5.33 semester units for both English tests combined. Students must score at least a “4” in the English AP exams to receive credit at some UC campuses. Please check with a Cabrillo College counselor.**

2. **Students who have AP scores in Biology, Chemistry, Math (BC exam), or Physics must see the Articulation Officer or the Transfer Center Director to determine prerequisite satisfaction. All Physics exams combined receive a maximum of 5.33 units of credit at UC.**

3. The Critical Thinking area (Area 1B-IGETC & Area A3-CSU-GE) cannot be met by AP exams.

4. The receiving institution may grant more credit than indicated above. For information on unit credit and how AP credit is used for major preparation, please consult a Counselor.

5. For use in transfer to private institutions, students must refer to the catalog of the school to which they plan to transfer.

### ARTICULATION WITH FOUR-YEAR UNIVERSITIES

The Cabrillo College Articulation Office, Room 104, develops both lower division major preparation and general education agreements (articulation) with public four-year universities. These agreements can be found at www.assist.org. Links to these agreements as well as articulation agreements with private schools and universities can be found on the Cabrillo Transfer and Articulation website http://www.cabrillo.edu/services/articulation/info/studindex.htm

### CREDIT THROUGH HIGH SCHOOL ARTICULATION

Cabrillo College will grant credit for courses formally articulated with area high schools in occupational areas where articulation agreements have been signed. Upon enrolling at Cabrillo College, students who have met the specific conditions of the articulation agreement may petition the Director of Admissions and Records for credit. The students’ high school counselor and instructors will provide agreed upon information for consideration of college credit. The forms necessary to petition for credit are available at www.cabrillo.edu/services/hsoutreach/.

In addition, most area high schools have articulation agreements in place with Cabrillo College for course placement in foreign language and math, based on the level completed in high school. For details, visit the Cabrillo College High School Articulation Web page at www.cabrillo.edu/services/hsoutreach/.

### EXTERNAL EXAMINATIONS AND SPECIAL CREDIT

Students requesting credit or advanced placement because of an external examination or previous equivalent experience may be considered under the following conditions:

1. Transfer students will be subject to the regulations of the institution to which they are transferring as to acceptance or rejection of external examinations for credit towards the Baccalaureate Degree. California State University General Education (CSU GE) credit and credit toward completion of IGETC will be granted according to the Cabrillo College Advanced Placement policy. In order to use AP scores for CSU GE or IGETC completion, a student must request certification upon transfer.

2. Information on advanced placement policy is available in the Counseling Division, the Transfer and Articulation section of the Cabrillo College website and in the College Catalog.
3. College credit toward the A.A./A.S. Degrees will be granted to students who earn scores of 3, 4, or 5 on Advanced Placement examinations given by the College Entrance Examination Board. (Please refer to the Advanced Placement section for more detail.)

**REPETITION OF COURSES**

A. Except for the following specified cases, repetition of courses at Cabrillo College will not be allowed. One of the following conditions must be present for the repetition to be allowed.

1. **Substandard Grades:** A student may repeat a course in which a substandard grade was received. Substandard grade is defined as D, F, or NC. Grades awarded for courses repeated under the above circumstances shall be entered on the student’s record, insuring a true and complete academic history. The previous grades and units will be disregarded in the computation of grade point averages. Students who need to repeat math courses more than twice should meet with a counselor. A course may be repeated only once without an approved petition to the Academic Council.

2. **Satisfactory Grades:** Under special circumstances, a student may request to repeat a course once for which a satisfactory grade has been recorded (a grade of A, B, C, or Credit). This repetition will be permitted with written permission of the Superintendent/President or his/her designee. Grades awarded for courses repeated under these conditions shall not be used in calculating a student’s grade point average at Cabrillo College and will not be used by four-year colleges and universities to calculate the units or grade point average for admission purposes. Students may repeat courses for which they received satisfactory grades under the following circumstances:
   a. When the student’s previous grade is, at least in part, the result of extenuating circumstances and if the student secures written permission to repeat the course from the involved division.
   b. There has been a significant lapse of time (two years) since the beginning of the last semester of enrollment in the course.
   c. When a student needs to update his/her knowledge of course material due to a significant lapse of time since the course was completed.
   d. When the course is required for recertification or relicensing every two to four years as determined by an outside agency.

3. **Repeatable Courses:** The College shall identify courses in the Catalog that are repeatable up to a maximum of three times beyond the first enrollment based on the course content differing each time it is offered. Students who repeat the course should gain an expanded educational experience for one of the following reasons:
   a. Active participatory experience in individual or group assignments is the basic means by which learning objectives are obtained.
   b. Skills or proficiencies are enhanced by supervised repetition and practice within class periods. See course descriptions to determine transferability to UC and CSU.
   c. Course repetition limitations are applied per course in visual and performing arts disciplines if the course is in the transfer curriculum. For all other activity courses, the repetition limitation applies to the subject matter. (Extended repetition of certain music courses, as designated in this Catalog, may be permitted for music majors.)

4. **Section 504:** Repetition is permitted to meet the requirements of Section 504 of the 1973 Rehabilitation Act, 29, USC Section 794.

5. **Credits from previously attended institutions:** In determining how courses taken at previously attended colleges or universities will be used for an A.A./A.S. Degree at Cabrillo College, course repetition policies implemented by the previously attended institution will be honored. Students will not be allowed to earn unit or grade credit for a Cabrillo College course that is the same in content as a course taken at a previously attended college or university and for which the student has earned academic credit. Content equivalencies will be determined by the Cabrillo College Articulation Officer.

B. **When course repetition occurs,** the permanent academic record shall be annotated in such a manner that all work remains legible, insuring a true and complete academic history.

**Academic Renewal**

Academic renewal is an option available to those students whose past academic record does not reflect their current demonstrated level of academic performance. The intent of academic renewal is to alleviate such a record and thereby facilitate a student’s progress toward graduation, certification, or transfer.

A student may request that his/her record be reviewed for academic renewal by the Academic Council under the following conditions:

1. Two years have elapsed since the substandard grades were awarded. (Substandard grades are defined as “D,” “F,” or “NC.”);
2. The student has subsequently completed 12 units of letter-graded work with a 3.0 grade point average or 24 units of letter-graded work with a 2.0 grade point average;
3. Not more than 30 units may be renewed;
4. A prerequisite course in a sequence of courses within a discipline for which the subsequent course has been completed with a satisfactory grade may not be renewed;

Students desiring academic renewal should obtain a petition from a counselor, who will determine if the conditions have been met. Signed petitions will be sent to the Director of Admissions and Records, who will act for the Academic Council. If the above conditions are met, the petition will be granted. Cases needing special deliberation will be brought directly to the Academic Council. A student may petition for academic renewal of his/her Cabrillo record with an official transcript from another college or university, if the above conditions are met.

Alleviated grades will have the code “04” (alleviation of unsatisfactory grade) on the transcript next to the grade, or the letter R (Replaced).

Academic renewal at Cabrillo College does not guarantee that other colleges will accept such action. This determination will be made by the respective transfer institutions.

**ACADEMIC PROBATION AND DISMISSAL POLICY**

The Cabrillo College District Governing Board in accordance with California Administrative Code, Title 5, establishes within the academic regulations, procedures whereby students may petition for reinstatement in Cabrillo College in the event of their failure to maintain the required standards. The standards set forth by the District shall include the following categories:
Academic Probation

1. Probation based on grade point average: A student who has attempted at least 12 letter graded units (A-F), as shown by the official cumulative record, shall be placed on academic probation if he/she has earned a grade point average below 2.0 in all units which were graded on the basis of the grading described in Board Policy 3210.

Progress Probation

2. Probation based on failure to maintain satisfactory progress: A student who has attempted a total of at least 12 units, as shown by the official cumulative record, shall be placed on progress probation when the percentage of all units enrolled, and in which a “W,” “I,” or “NC” have been recorded, reaches or exceeds 50 percent.

Dismissal

3. A student shall be subject to dismissal if in three consecutive semesters, either or both of the following criteria are applicable:
   a. The student’s cumulative grade point average is less than 2.0 GPA in all units attempted.
   b. The cumulative total of units in which the student has been enrolled for which entries of “W,” “I,” or “NC” have been recorded, reaches or exceeds 50 percent.

The two probationary criteria described above will be applied in such a manner that a student may be placed on probation under either or both systems, and subsequently may be dismissed under either or both systems.

Cabrillo College will publish in this Catalog, procedures and conditions for probation and/or dismissal, appeal of probation and/or dismissal, request for removal of probation, and request for reinstatement. Notification to students of probation and dismissal shall occur at or near the beginning of the semester in which it will take effect.

ACADEMIC STANDARDS

Students who do not maintain the academic standards described in Board Policy 6070 are subject to dismissal from Cabrillo College for one semester. Those who wish to return after being unregistered for one semester should meet with a counselor to review academic goals and other relevant concerns to having a successful educational experience.

Students who want to be reinstated immediately should obtain the recommendation of a counselor and give the reinstatement petition to the Director of Admissions and Records for review. If the petition is denied, the student may appeal the decision to the Dean of Student Services.

Students who petition for reinstatement must describe what changes now cause them to expect success, what their educational goals are, and in which courses they wish to enroll in the stated term. Examples of changes may include such conditions as reduced work hours and improved health. Students will be removed from probation when the cumulative grade point average is 2.0 or higher and/or when the percentage of units for which there are entries of “W,” “I,” and “NC,” drops below fifty percent (50%).

PLAGIARISM

Plagiarism is the conscious or inadvertent failure to identify the contributions of others. It occurs when someone borrows any part of another’s work and submits it, as his or her own work without crediting its author. A failure to credit others may result in one or more of the following: a student receiving a failing grade on the assignment, a failing grade for the course, or suspension from the college. Students are expected to know how to credit sources, how to quote and paraphrase, and how to avoid plagiarizing the work of others. If you are unsure, ask your instructor for assistance before you submit your work for credit.

BASIC SKILLS

Enrollment in precollege basic skills coursework is limited to 30 semester units of instruction, except for students enrolled in English as a Second Language courses or who are identified as having a learning disability. The 30-unit limit may be waived if students show significant, measurable progress toward the development of skills appropriate to their enrollment in college-level courses.

Appeal and Waiver Procedures

1. A student seeking to waive or appeal the unit limitation on enrollment in precollege basic skills courses shall submit a petition to an academic counselor. The counselor shall meet with the student to review educational records and faculty progress reports and to develop an academic plan for the next semester. The counselor shall forward the student petition, the plan, student records, and faculty progress reports to the Vice President, Student Services, who shall forward them, with a recommendation, to the Academic Council subcommittee for student appeals.

2. If, after review of student records and faculty progress reports, the Academic Council finds the student has made consistent and significant progress but has not quite attained eligibility for college courses, the Academic Council may grant a waiver. The petition indicating the action taken by the Academic Council shall be given to the Director of Admissions and Records, who shall notify the student of the decision on the waiver.

3. Permission to waive the 30-unit limit will allow the student to enroll in basic skills courses for a period not to exceed one semester and for a maximum of 10 basic skills units. A student may apply for additional waivers, but may receive waivers for a total of not more than 15 units.

4. The student shall sign a form acknowledging his/her knowledge of the limitations of the waiver.

5. Once a waiver is approved, the student will not be barred from registering in basic skills classes up to the maximum unit limit approved.

6. If the waiver is denied, the Director of Admissions and Records shall refer the student to appropriate adult education programs or community services.
7. A student may submit to the Director of Admissions and Records a petition for reinstatement upon the successful completion of coursework or a community services program and/or appropriate scores on the Cabrillo College assessment tests. The Academic Council Subcommittee on Student Appeals shall review the petition and grant or deny reinstatement on the basis of whether the student can demonstrate skill levels that will reasonably assure success in college level courses.

ATTENDANCE

Attendance

Students are expected to attend all classes and labs. Students who are absent because of illness should personally contact their instructors. Illness-related absences do not relieve students from the responsibility of making up any work missed. It is the responsibility of the student to obtain information concerning missed work and to see that it is completed and turned in.

Excessive Absence

Excessive absence is equal to a total of one hour more than the total hours the class meets per week in a full term semester. This applies equally to day, evening, summer, Wintersession, and weekend classes.

Absence from class in excess of two weeks will constitute reason for an instructor to withdraw a student from a full-term course. It is the student’s responsibility to officially withdraw from classes. Failure to officially withdraw from classes may result in failing grades.

Attendance at First Class Meeting

Students who do not attend the first class meeting may be dropped and their seats filled by other students. Students should not, however, assume that they will be dropped. It is the student’s responsibility to officially drop a course using HawkTalk or WebAdvisor online registration. If the instructor does drop the student from the class, there is no refund or reversal of charges. The student must drop by the deadline during the first two weeks of instruction for full-term courses. Short-term courses have much shorter deadlines, available from Admission and Records at Aptos or the Watsonville Center. To ensure a refund or reversal of charges for a short-term course, the course should be dropped by the student on the first day of class. If a student is unable to attend the first class meeting, it is the student’s responsibility to notify the instructor before that class meeting and request that the seat be held. The instructor is under no obligation to honor this request.

EXCLUSION FROM CLASSES

When a student has excessive absences, causes disciplinary problems, or fails to obtain a satisfactory grade in a prerequisite course, the instructor may request the Admissions and Records Office withdraw the student from class.

REQUISITES

Prerequisites, Corequisites, Recommended Preparation, and Limitations on Enrollment

A prerequisite is a course or body of knowledge that must be satisfactorily completed before a student may register in another course. Cabrillo College enforces prerequisites. Satisfactory completion is defined by a “C” or better grade or a “CR” grade.

A corequisite is a course that must be taken concurrently with another course. When a student registers for a class requiring a corequisite class, s/he must register for both classes at the same time. If s/he does not register for both classes, neither class will be processed during registration. All other classes not requiring corequisites will be processed.

Recommended preparation is a course or body of knowledge that a student should complete but is not required to complete before registering for another course.

Limitations on enrollment may occur for courses that involve public performance or intercollegiate competition, including but not limited to band, orchestra, theatre, competitive speech, chorus, journalism, dance, and intercollegiate athletics; courses that carry an honors designation; or blocks of courses or course sections designed to create a specific student group.

A student believes he/she has satisfied the prerequisite at another college or in other ways, must bring documentation to a counselor for input into the computer. See additional information in this Catalog, the Schedule of Classes and on the Cabrillo website, www.cabrillo.edu.

CHALLENGING COURSE REQUISITES AND LIMITATIONS

Challenging course requisites and/or limitations on enrollment requires written documentation that explains the alternative course work, background, and/or abilities that adequately prepare a student for the course. Students may obtain a Requisite Challenge Form from the Matriculation Office, Room 820 or online at www.cabrillo.edu “PFD forms.” If space is available in a course when a student files a challenge to the prerequisite or corequisite, the College shall reserve a seat for the student and resolve the challenge within five academic calendar workdays (AR 3180). Reasons for challenging requisites or limitations may include one or more of the following:

1) a requisite course is not reasonably available;
2) the student believes the requisite or limitation was established in violation of a regulation or district-approved process for establishing requisites and limitations;
3) the student believes the requisite or limitation is discriminatory or being applied in a discriminatory manner; or
4) the student has the documented knowledge or ability to succeed in the course without meeting the requisite and/or limitation.

When a student successfully challenges a requisite, s/he does not receive credit for the requisite course. As a result, transfer students who successfully challenge a transferable requisite may be missing credit for coursework required by their transfer institution. Transfer students should first consult with a Cabrillo Counselor.

We encourage students to take advantage of the matriculation services, as they will progress students towards their goals in the fastest amount of time with the correct courses needed for degrees, certificates and transfer.

FINAL EXAMINATIONS

Finals are required in all courses. A schedule of final examinations is published in each Schedule of Classes. Students are to take examinations as printed in the Schedule of Classes. In case of a severe illness that prevents the student from taking the examination at the scheduled period, the instructor should be notified prior to the exam, and as soon as possible the student should arrange with his/her instructor to make up the examination.
VETERANS

Certification of Veterans and Eligible Students for Veteran’s Educational Benefits

The academic and progress, dismissal and re-admission policies for veterans and eligible dependents are the same as other Cabrillo students and are described in this Catalog. The policy for certification of veteran’s educational benefits requires maintenance of a 2.0 grade point average. Fall and Wintersession grade point averages are reported together.

VA Satisfactory Academic Progress

According to the Department of Veterans Affairs’ regulations, students must maintain timely and satisfactory progress toward their educational objectives in order to be eligible for educational benefits. Satisfactory VA academic progress at Cabrillo College is defined as:

1. Enrolling in and completing the certified number of units required by the guidelines governing the program providing the funds:
   a) If you are paid for full-time status (12 or more units), you must complete at least 12 units.
   b) If you are paid for three-quarter time status (9-11 units), you must complete at least 9 units.
   c) If you are paid for one-half time status (6-8 units), you must complete at least 6 units.

2. Attaining a minimum grade point average of 2.0 each semester. Receipt of an “F” or “NC” can reduce benefits if the student did not complete the course.

3. Not having completed more than 70 semester units of postsecondary coursework.

To maintain satisfactory academic progress, you must:

1. Declare an educational objective.
2. Complete an Educational plan with a counselor by the end of your first term.
3. Achieve course completion within your Educational plan with satisfactory grades (2.0 GPA or better).
4. Not have completed excess units of college education (more than 70 semester units or equivalent, including all prior schools attended).

VA Probation

Veterans and eligible students whose grade point average (GPA) for all course work at Cabrillo College falls below 2.0 (‘C’) will be placed on VA academic probation.

Veteran’s Removal from Probation

Veterans and eligible students will be removed from VA academic probation upon earning a 2.0 (‘C’) average or better in all course work at Cabrillo College.

Dismissal and Discontinuation of Benefits

A veteran and eligible student who remains on probation for grade point deficiency below a 2.0 cumulative GPA beyond two semesters will have the veteran’s benefits discontinued and any further certification of benefits terminated.

VETERANS

Courses offered by Cabrillo College are approved for training under programs administered by the Veterans Administration and the California Veterans Education Institute Act. Educational programs at Cabrillo College, both day and evening, are available. Veterans may be admitted to the College whether or not they are high school graduates. Students enrolled under the G.I. Bill receive stipends based on attendance and unit load.

Veterans Affairs in Admissions and Records, Enrollment Services Center, Building 100, provides services to meet the various needs of the veterans and to assist them in obtaining prompt receipt of their benefits. The office also provides information regarding tutorial assistance.

Each veteran who wishes to receive educational benefits should submit one copy of the Report of Separation from Active Duty, Form DD 214, to Veterans Affairs in Admissions and Records.

Form 22-1999V, Notice of Eligibility for Education or Training Benefits, which is issued by the service education officer upon release from active duty, may be used in lieu of the certified DD 214. All changes in address, unit loads, or withdrawals must be promptly reported to Veterans Affairs in Admissions and Records. See below for information regarding certification and VA Satisfactory Academic Progress.

Reinstatement

Veterans who have been dismissed from Cabrillo College may apply at the Admissions and Records Office for reinstatement after one semester of non-payment. Students who apply may be reinstated and recertified after completing a petition and an Educational Plan with a counselor and raising their cumulative GPA to 2.0 or better.

Veterans reinstated who have a grade point average of less than 2.0 for the term immediately following reinstatement shall not be eligible for reinstatement or recertification for a period of one academic year.

In extreme cases in which reinstatement resulted from mitigating circumstances, veterans ineligible for recertification under the above regulations may submit an appeal for specific consideration. Such documented exceptional circumstances beyond the control of the student, which rendered normal academic functioning unlikely or impossible, include hospitalization, injury, and family death.

DEGREES AND CERTIFICATES

Each student should meet with a Cabrillo College Counselor during his/her first semester to develop an Educational plan. A student who completes requirements for an Associate in Arts or Associate in Science (A.A. or A.S.) Degree must apply for such degree and upon verification will receive a diploma. To apply for an A.A. or A.S. Degree, Certificate of Proficiency, Skills Certificate or Specialization Certificate a student should make an appointment with a counselor at least nine weeks before the end of the semester in which all course work for the degree or certificate will be completed. The College hosts a College Graduation Ceremony each year. All eligible students who complete requirements for the Associate Degree in Arts or Science or any Certificate and have been awarded the degree or certificate are invited to participate.
ACADEMIC COUNCIL

Enforcement, interpretation, and waiving of academic regulations are handled by the Academic Council, a standing committee of the Faculty Senate.

The Academic Council makes recommendations on matters which affect the academic standards of the College, including consideration of admission, grading, graduation, and course transfer issues.

A student who wishes exemption from any college requirement shall prepare a petition after consultation with a counselor. The administration will apply policies established by the Council to student petitions.

CATALOG RIGHTS

Cabrillo College issues a new Catalog yearly. The courses required for a specific degree or certificate may change from one catalog to the next, and often change during a student’s tenure. For the purposes of meeting graduation requirements based on catalog rights, students may elect to meet the requirements of either:

1. The Catalog which was in effect at the time the student began his/her course work at Cabrillo, or
2. Any Catalog that is or has been in effect during the time that the student has maintained continuous enrollment before graduation.

Students maintain catalog rights by continuous enrollment at Cabrillo College. Continuous enrollment is defined as completion of at least one course per academic year. Documented military or medical leave, not exceeding two years, will not be considered an interruption of enrollment.

COURSE UNAVAILABILITY

A student’s academic progress toward a degree or certificate should not be impeded due to course unavailability. Therefore, if a course in a designated field of study has not been taught for three consecutive semesters, the Program Chair, or in her/his absence, the Division Dean, in consultation with the appropriate department representative, will stipulate another course in lieu of the course required for graduation.

SUBSTITUTION OR WAIVER OF GRADUATION REQUIREMENTS

Cabrillo College recognizes that a disability may preclude a student from demonstrating required math, reading, and writing competencies or from completing course requirements necessary for an A.A. or A.S. Degree in the same manner in which non-disabled students are expected. The College also recognizes the need to accommodate students with documented disabilities to the greatest extent possible without compromising a disabled student’s course of study and without compromising the integrity of any student’s degree. Contact the Disabled Students Programs and Services office at (831) 479-6379 for further information.

PRIVACY RIGHTS OF CABRILLO COLLEGE STUDENTS: ANNUAL NOTIFICATION

The Family Educational Rights and Privacy Act (Section 438, Public Law 93-380) requires that educational institutions insure access to official education records directly related to the student; that the College provide hearing opportunities to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate; that the College obtain student’s written consent before releasing personally identifiable records information to previously unspecified persons and agencies; and that these rights extend to present and former students of the College.

1. Education records generally include documents and information related to admissions, enrollment in classes, grades, and related academic information.
2. The Director of Admissions and Records has been designated Records Officer as required by the Act. Education records will be made available for inspection and review during working hours by presently and formerly enrolled students within five days following completion and filing of a request form with the Records Officer.
3. If these informal proceedings do not settle the dispute with the student’s records, the student may submit a request in writing to the Designated Officer, the Vice President, Student Services, on forms provided by that office. The Designated Officer will then assign the matter within 10 school days to a Hearing Officer.
4. During the informal proceedings, the Records Officer may make such adjustments or changes not constituting interference of integrity, at the conclusion of which the Records Officer will render a decision to the President of the College, who will make the final decision of action to be taken.
5. The act provides that the College may release certain types of Directory Information unless the student submits in writing to the Records Officer that certain or all such information not be released without the student’s consent. Directory Information at this college includes: (a) student name, (b) participation in recognized activities and sports, (c) dates of attendance, (d) degrees and awards received, (e) the most recent previous educational agency or institution attended.
6. A copy of the College Policy, Section 438, (P.L. 93-380) and other pertinent information is available for review and inspection in the Records Officer’s office during normal working hours.
Student Services, Activities, Rights and Responsibilities

ACTIVITIES AND ORGANIZATIONS

Student Affairs Office

The operational hub of extracurricular student activities on campus is the Student Affairs Office. The Student Affairs Office is fully equipped to assist individual students and student groups in coordinating activities. Located in the Student Center Building (Building 900), (831) 479-6378, this office offers a wide range of activities, events, services, and programs which include but are not limited to the following: student club information, ASCC Student Senate, social and educational programming, leadership development opportunities, flyer and poster approval, housing board, bus pass and parking permit information, and student-related campus information center.

Student Senate at Cabrillo College

The Student Senate has two major roles. First, to be the formal, official “voice of the students,” the student group who voices the needs, wishes, and concerns of the students to the staff, faculty, and administration. Through student representation, students also have their concerns heard at the state level. The second role is to network with clubs and organizations on campus to provide services, programs, and activities for the Cabrillo College student community.

Campus Clubs and Organizations

All students are encouraged to get the most out of their college experience by participating in extra curricular activities while attending Cabrillo College. Joining a club—cultural, social, or special interest—is one way to enhance the College experience. Clubs are organized to involve the student in specialized fields of interest allied with his/her academic major, personal interest in a particular activity, or special service to the College or community. For a complete list of Cabrillo College clubs, stop by the Student Affairs Office.

Students and Shared Governance—Campus Committees

Students are appointed by the ASCC Student Senate to serve on important college governance committees. If you are interested in serving on a Cabrillo College committee, stop by the Student Affairs Office, Room 914, and leave a message for the Student Senate President or Coordinator of Student Activities.

Publications

The most frequently issued campus publication is the student newspaper, The Voice, produced by students enrolled in journalism classes. It comes out every two weeks during the school year. Students also produce a literary magazine, the Porter Gulch Review, which comes out once a year.

Alpha Gamma Sigma

Alpha Gamma Sigma, the California Community College Honor Scholarship Society, is a statewide organization having chapters in more than 80 community colleges. The Cabrillo College chapter, Gamma Phi, was chartered in 1961 and recruits new members at the beginning of each fall and spring semester from among students who have completed 12 units of community college work with a cumulative grade point average of 3.0 or higher. Life members of CSF as well as those students who earned a cumulative GPA of at least 3.5 in high school may also apply for membership in Alpha Gamma Sigma during their first semester at Cabrillo.

The purpose of Alpha Gamma Sigma is to foster, promote, maintain, and recognize scholarship among community college students. The Gamma Phi chapter expects that members will, in addition to maintaining a GPA of 3.0 or higher, participate in various chapter, college, or community activities of their choice.

More detailed information concerning Alpha Gamma Sigma’s activities, membership requirements, and special scholarship opportunities are available from the club’s officers, their faculty advisors, or the Student Affairs Office, Room 906.

Athletics

Cabrillo College is a member of the Coast Conference of the California Association of Community Colleges. The College enters into conference competition for men in football, golf, water polo, basketball, baseball, tennis, soccer, and swimming; and for women in swimming, basketball, soccer, softball, tennis, and volleyball. Members of the Coast Conference are Monterey Peninsula College, Hartnell College, Gavilan College, Ohlone College, Cañada College, De Anza College, Foothill College, Skyline College, Mission College, Cabrillo College, Chabot College, College of San Mateo, City College of San Francisco, West Valley College, and San Jose City College.

Intercollegiate athletic competition is governed by the Coast Conference and the California State Community College Athletic Code. Obtaining clearance for athletic eligibility often requires considerable checking of records and code provisions. These procedures should be started well in advance of the opening of each athletic season. The Division Dean of the Health, Wellness, Physical Education and Athletics Division in consultation with the Athletic Director will interpret the State Athletic Code and Conference regulations for all persons concerned. Students will be assisted in establishing athletic eligibility.

Recruiting, proselytizing, and soliciting of an athlete who is a non-district resident by any member of the college or its employees is forbidden.
BOOKSTORE

The College has bookstores in Aptos, located on the lower floor of the 900 building, and the Watsonville Center. The bookstores carry textbooks, reference books, school supplies, and sundries.

Textbooks can be purchased from the bookstores at the beginning of each semester. The textbook list is available at that time at the Bookstores and on the web at www.cabrillobooks.net.

Enrolled students are eligible to purchase Apple computers and software at discounted academic prices. Full refunds on purchases may be received within three days of purchase with cash register receipt through the eighth week of the semester. Extended refund periods are posted at the beginning of each semester. Used books are bought back during finals week in December and June.

CHILDREN’S CENTER

The Cabrillo College Children’s Center is accredited by the National Association for the Education of Young Children (NAEYC). The Center provides half- and full-day programs for children ages 6 months through 5 years and their families. The Jack and Elena Baskin Children’s Center, the Margo Lynn Trombeta Infant Center, and the Child Development Lab classrooms are integral parts of the Early Childhood Education Department. The five-classroom program offers student, faculty, and staff parents a supportive place to learn, grow, share, and gain support in facing the realities of child rearing in our fast-paced and complex world.

Children and families enrolled in the Center’s programs represent a range of cultural, ethnic, economic, and linguistic diversity. Teachers, students, families, and faculty work together to build an accessible, culturally responsive, and high-quality program that serves as a model and observation site for Cabrillo, UCSC, and teachers from around the state. Carefully selected learning activities facilitate intellectual development, self-discovery, and competency for all ages. These programs support children as they explore, learn, and make discoveries about the world in which they live. Together, families and students interact, ask questions, and gain insights into children’s behavior, and into the role of adults in supporting them as they grow. Lifetime friendships are often created.

The Children’s Center is supported by the College general fund, grants, and parent fees. The California Department of Education Child Development Division provides funding for half- and full-day childcare based on income and need. Families can apply for enrollment at the birth of a child. Applications are valid for one year, are renewable, and can be obtained through the Children’s Center Office in Building 1500, on the ocean side of campus. Call (831) 479-6352 for information or mailing.

COMMUNICATIONS

No telephone messages for students will be accepted by the College, and mail should not be addressed to students in care of the College. To reach students in an emergency, contact the Sheriff’s Office, Room 955, (831) 479-6313.

COUNSELING

The Counseling Division’s mission is to “promote optimal learning and psychological wellness so that students will ultimately become active, contributing members of society.” The comprehensive college counseling program encourages the academic, personal, social, and career development of all students. The Counseling Division also provides courses and workshops in college success, career planning, study skills, essay writing, general transfer requirements, and other topics as needed. Personal counseling is available on a limited basis. Counselors provide students with counseling to help them with self-exploration, personal development, decision making, and career/life planning as it relates to their college experience and their educational goals. Counselors help students with transfer admission agreements (T.A.A.s) for some campuses of UC and CSU and private universities. For more information or to set up an appointment, call (831) 479-6274. For the Watsonville Center, call (831) 477-5134.

The Division is staffed by professionally trained counselors who provide academic counseling for occupational and two-year degrees, and transfer to four-year colleges. Academic counseling provides students with information about the requirements for the certificates, associate degrees, and occupational programs offered at Cabrillo. Students are encouraged to develop educational plans to help them achieve their goals. Counselors provide students who plan to transfer with information about four-year college admissions and programs. Students and counselors work together to make informed decisions and plans that will take into account student goals, admissions and general education requirements, and important preparation for majors and competitive programs.

DISABLED STUDENTS PROGRAM AND SERVICES (DSPS)

The Disabled Students Program and Services (DSPS) offers a variety of services to enable students with disabilities to function independently in the educational environment. The objectives of our services are to integrate and mainstream students with disabilities into general campus programs and activities.

The following services are provided to students enrolled through the DSPS Office in Room 810: counseling and advising, tutorials, academic support referrals and coordination, interpreters, note takers, special classes, special equipment, on-campus transportation, special parking, priority registration, test proctoring, liaison with local, state and federal agencies, specialized adaptive equipment, and a high-tech center with computer adaptations. For assistance, phone (831) 479-6379 or (831) 479-6370, or fax (831) 479-6393; TTY (831) 479-6421.

EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOPS—CARE)

Extended Opportunity Programs and Services (EOPS/CARE) is a state-funded program for full-time Cabrillo students identified as economically and educationally disadvantaged. Students served include, but are not limited to, re-entry women and men, ethnic minorities, English as a second language speakers, and students with disabilities. Services available to eligible students include Cabrillo College EOPS/CARE orientations, financial assistance, academic skills assessment, personal and vocational counseling, educational and career planning, student advising, tutorial and study skill assistance, and campus resource and community agency referrals. Interested students may contact the EOPS office, Room 907 or 910, or call (831) 479-6305 for more information.

Eligibility for Cooperative Agencies Resources for Education (C.A.R.E.) include: a student must be EOPS eligible, be single, head of household, and have at least one dependent child under age 14 and currently receiving CALWORKS cash benefits. These students are eligible for the services mentioned above and more.
FAST TRACK TO WORK (FTTW)

The Fast Track To Work Program (FTTW) provides support services to students receiving benefits from specific grant programs such as CalWORKs cash aid, the Workforce Investment Act, or the Grove Scholars program. FTTW helps students to identify and start on a career track that will lead to a family-supporting income.

The FTTW office is located in Room 802 and is open Monday-Thursday 8:00-5:00, and Fridays 8:00-noon. Eligible students are encouraged to call or drop by for more information. The office provides academic counseling, peer advising, job retention and financial literacy classes, a lending library, resource and referral information, liaison with the granting agency, and, for CalWORKs students only, childcare funds and work-study jobs. Call (831) 479-6344. Se habla español.

FINANCIAL AID

Financial Aid is administered in compliance with federal and state regulations and district policy. Financial Aid regulations assume parents and students have the primary responsibility for meeting college costs and that financial aid is a resource to bridge the gap between the cost of education and the family’s ability to contribute. The expected family contribution is determined by a federally approved need analysis methodology that analyzes the family’s financial strength. Eligibility is restricted to students who are enrolled in an eligible program and are working toward a degree, certificate of proficiency, or in a transfer degree program. In addition, students must be U.S. Citizens or permanent residents of the United States and must maintain the Standards for Satisfactory Academic Progress.

The Financial Aid and Scholarships Office determines the amount of federal financial aid that a student has earned in accordance with federal law. Students who receive federal financial aid (Pell, FSEOG, Academic Competitiveness Grant, or Stafford Student Loans) and do not attend any classes will be required to repay all of the funds they received. Students who withdraw from all classes prior to completing more than 60% of the semester will have their financial aid eligibility recalculated based on the percentage of the semester completed and will be required to repay any unearned financial aid they received. Students who plan on withdrawing should file an Intent to Withdraw form with the Financial Aid and Scholarships Office.

At Cabrillo College a student’s withdrawal date is:

- The date the Admissions and Records Office or the Financial Aid and Scholarships Office is notified, or
- The midpoint of the semester if the College is not notified, or
- The last date of attendance in a class as determined by the instructor.

To apply for financial aid programs administered by the College, students must file a Free Application for Federal Student Aid (FAFSA) listing Cabrillo College, Title IV Code #001124, among the Colleges to receive the information. Financial aid applications are available every year beginning in January for the following school year. Students who apply annually by March 2 are given priority consideration by Cabrillo and meet the Cal Grant deadline for state grants. Awards are contingent upon available funds. Cabrillo College participates in the following federal, state, and institutional financial aid programs:

Federal Pell Grant

Federal Pell Grants are available only to undergraduate students who have not received a bachelor’s degree. The grant amount is determined by a formula that considers the student’s enrollment status and expected family contribution. For 2007-2008, annual awards range from $400 to $4310.

Federal Supplemental Educational Opportunity Grant (FSEOG)

These funds are awarded to students who have the highest need, attempted less than 90 units, and are eligible for Pell Grants. Students receiving FSEOG funds must be enrolled in at least 6 units per semester at Cabrillo College. Students must file a FAFSA by March 2 to receive priority consideration, as there are insufficient funds to meet the needs of all eligible students. Awards are made on a first-come, first-serve basis to eligible students. The average annual award is $400.

Academic Competitiveness Grant

This is a federal program, in which first and second year full time students, who have completed a rigorous secondary school program of study, have not been previously enrolled in a program of undergraduate education, are U.S. citizens and Pell Grant recipients, will be awarded. First year students are those who have graduated after January, 2006 and second year students are those who have graduated after January, 2005. Second year students must have completed 24 units with at least a 3.0 GPA. The first year award is $750; the second year award is $1,300. Depending on the number of awards, these amounts could be reduced.

Cal Grants

To qualify for a state Cal Grant A, B, or C, students must be residents of California and file the FAFSA by March 2. An additional deadline of September 2 for community college students allows them to be considered for a second round of competitive awards.

The Cal Grant Program consists of Entitlement and Competitive awards. Entitlement awards are guaranteed to students who have graduated from high school in 2002-03 or later and meet the eligibility requirements. Awards are offered on a competitive basis to those students who did not receive entitlements. They are not guaranteed.

New Cal Grant applicants must mail a certified Cal Grant Grade Point Average Verification Form to the California Student Aid Commission (CSAC) by March 2. Students are advised to submit the GPA Verification Form to the appropriate school at least 10 days in advance of the deadline. Students awarded a Cal Grant A will have their awards put on reserve until they transfer to a four-year California college or university, as these funds are credited toward tuition fees. Students awarded a Cal Grant B receive a stipend to help cover living expenses; if transferring to a four-year California college, students receive tuition assistance in addition to the stipend. Cal Grant C awards are for students who are enrolled in one- or two-year vocational programs and intend to receive a certificate of proficiency or A.A. or A.S. Degree at Cabrillo College.

Child Development Grant

This is a competitive grant for students who intend to teach or supervise in the field of Early Childhood Education. Grant recipients must agree to provide one full year of service in a licensed childcare center for every year grant funding is received and are required to complete a Service Commitment Agreement prior to receiving payment from the program. To be considered for this award students must have filed the FAFSA, be eligible for financial aid, and complete a Child Development Grant Application by June 2, 2007. The annual award is $1,000 at a community college, $2,000 at a CSU/UC.

Chafee Grant

This is a grant program that assists eligible California youths aging out of foster care with the costs of attending a postsecondary institution. Recipients must be enrolled in a Title IV-eligible program of at least one year in length and have financial need. To be considered for this award, students must complete the FAFSA, be eligible for financial aid, and complete the Chafee Grant Program Application. Online applications are available at www.chafee.csac.ca.gov. The maximum annual award is $5,000.
**Board of Governors Enrollment Fee Waiver (BOG)**

This is a state program that waives community college enrollment fees. Students must be residents of California and either meet specified income criteria or be a current recipient or dependent of a recipient of TANF/CalWorks, SSI/SSP or General Assistance, or have a dependent’s fee waiver from the Veteran’s Affairs Department, or Congressional Medal of Honor or 9-11 dependent, or dependent of a deceased law enforcement/fire suppression personnel killed in the line of duty, or have been determined to be eligible through the FAFSA application. The deadline to apply for BOG is the last day of the term. Eligibility continues for the remainder of the terms within the school year. BOG Applications must be completed each academic year beginning in the fall term and are available at the Financial Aid and Scholarships Office, either the Aptos campus or Watsonville Center, or in the Schedule of Classes or online at www.cabrillo.edu/services/financialaid.

**Federal Work-Study (FWS)**

Work-Study is a federally funded job program. Work-Study awards are earned by working at a job on the Cabrillo campus or with a non-profit or public agency. Payment is made on a monthly basis as earned. Students must file a FAFSA and indicate their interest in Work-Study on the application. Priority is given to eligible students who file by March 2 and awards are made on a first-come first-serve basis. Students must be enrolled in at least 6 units per semester and making satisfactory academic progress to remain employed under this program. The average annual award is $6000.

**Federal Stafford Loans**

Stafford Loans are a form of financial aid and must be repaid with interest. Students who have demonstrated financial need may apply for a Subsidized Stafford Loan. The federal government pays the interest on subsidized student loans while students are in school at least half time and during a grace period afterward. Students who are not eligible for a subsidized loan do not have financial need as calculated by the Financial Aid and Scholarships Office may apply for an Unsubsidized Stafford Loan. The interest on unsubsidized student loans begins immediately and is not paid by the government. The interest rate on both Subsidized and Unsubsidized Stafford Loans is fixed at 6.8%. To apply for Stafford Loans, students must file a FAFSA and attend an Entrance Loan Workshop. All Stafford Loan borrowers must be enrolled and attending in a minimum of 6 units. Loan maximum amounts are based on grade level and eligibility. Parents of dependent students may borrow funds from the Parent Loan for Undergraduate Students (PLUS) Program. The interest rate is 8.5%.

**FINANCIAL ASSISTANCE, OTHER**

**Student Affairs Book Loan**

The Associated Students sponsor a book loan program whereby student activity cardholders may apply for modest, short-term loans to cover partial or full costs of books purchased through the College bookstore. More detailed information is available through the Student Affairs Office. The student must have completed 12 units at Cabrillo and be enrolled in at least 6 units for the current semester.

**HOUSING**

The Student Affairs Office posts housing information on the housing bulletin board and the housing website. Students, staff, and faculty may advertise available rentals or listings for those seeking housing. The service is free and notices remain posted for 3 (three) weeks. Complete housing information cards in the Student Affairs Office, Building 900, or call (831) 479-6378 or on the Internet at: www.cabrillo.edu/services/housing.

**INSURANCE**

All students are insured to provide benefits for accidental injury during regular attendance at the College, while attending college-sponsored activities, and while traveling under college supervision to and from such activities. The cost of this insurance is charged as part of a student health fee. It is paid in addition to enrollment fees and is waived for students with religious objections, and those students enrolled through a recognized apprenticeship program. The benefits are paid after any valid and collectible benefits provided by other insurance plans covering a student, and benefits are paid to the limit of the policy only, and subject to the plan deductible. Call (831) 479-6317 to report student accidents and to obtain claim forms. For more information call Student Health Services at (831) 479-6435.

Individual student health insurance plans are available for purchase. Cabrillo College Student Health Services has information concerning insurance options for students available in Room 912 at the Aptos Campus or at the Student Resource Center in Watsonville.

**LEARNING SKILLS PROGRAM**

The Learning Skills Program is designed to serve students with specific learning disabilities and Attention Deficit Disorder that can effect classroom performance, making it difficult for these students to succeed without classroom accommodations, specific compensatory techniques, remedial instruction, assistive technology, and/or other support services. Students may be self-referred or referred by instructors, counselors, and community agencies. Students requesting a learning disability assessment must first complete the intake process. When appropriate, individual diagnostic testing is then administered. Individualized recommendations and strategies will be based on the results of this assessment. Students may also be eligible for the program if they have current valid documentation from an appropriate outside agency. Instruction in the Learning Skills Program is designed to help students learn techniques to ensure their success in other courses. Interested persons are encouraged to call (831) 479-6220 for further information and appointments.

(see page 22 for information about the Honors program.)
LIBRARY

The Robert E. Swenson Library plays a central role in the use of information resources at Cabrillo. With rapid technological change and an expanding array of information resources, information literacy has become an important skill in both higher education and in the workplace.

Librarians help students, faculty, and staff recognize when information is needed and then locate, evaluate, and use the needed information effectively. Approximately 75,000 items (print books, electronic books, and videos) are listed in the online catalog in the library. The library provides a wide selection of full text database subscriptions to support instruction. The list of online resources includes EBSCOhost Academic Search Premier, Ethnic Newswatch Health Source Nursing/Academic, Literature Resource Center, National Newspapers S, Historical New York Times, Britannica Online, AccessScience, ArtStor, Grove Dictionary of Music, Grove Dictionary of Art, Rand California, CountryWatch, CQ Researcher, the Oxford English Dictionary, and access to over 16,000 electronic Books. There are over 3500 video/DVD titles. Smooth access to all of the resources is available from any one of the more than 45 workstations in the Reference area of the library. Remote access to all of these electronic resources is also available. The library building has wireless access to the Internet and to these online resources.

The library has 11 small group study rooms that seat anywhere from six to eight students. Available on first-come/first-serve basis, these rooms are for small groups of students to work collaboratively on research projects.

Special needs are accommodated in the library by the provision of:

- 10% of the tables and carrels high enough for wheelchair comfort;
- Two Internet access workstations equipped with ‘JAWS’ software which reads screens aloud and Zoomtext which enlarges print;
- A CCTV enlarging reader
- A wheelchair height section of the main circulation desk.

In the Reference room, library users can expand their search for information resources relevant to their studies. Students are actively encouraged to become trained researchers in the complex and changing world of information literacy.

Library hours during fall and spring semesters:
- Monday-Thursday 8:00 a.m.-8:00 p.m.
- Friday 8:00 a.m.-4:00 p.m.
- Saturday 12:00-4:00 p.m.

For vacation and summer session hours phone (831) 479-6473, or check the library homepage at http://libwww.cabrillo.edu. For a librarian’s help with library resources, phone (831) 479-6136.

LOST AND FOUND

Lost articles are turned in to the College Information Center/Reception Desk in the 100 building or to the Cabrillo College Sheriff’s Office in Building 955 (Green Modular building on Cabrillo College Drive). Articles not claimed at the end of each semester are disposed of in accordance with state law.

MATH LEARNING CENTER

The Math Learning Center (MLC) is a free drop-in math tutoring service for Cabrillo College math students and students taking courses having math prerequisites. The MLC was created not only to help students develop problem-solving skills but also to help them obtain the confidence and ability to tackle math problems on their own. By signing up on a waitlist, students receive help on a first-come/first-served basis. To reduce the waiting time for help, tutors help each student with one or two problems before moving to the next student on the list. Students may sign up on the list as often as needed while they are in the MLC. Typically, students use the MLC’s services to get a jump-start on problems they run into while doing their homework.

In addition to drop-in tutoring, students may check out calculators, textbooks, textbook video tapes, and various learning software packages for use in the MLC. Also provided are exam review sessions and study sessions when coordinated with the instructor. To use the MLC during the semester, stop by during the first few weeks to register for services. To find out more about the MLC call (831) 477-5696 or visit the website at: www.cabrillo.edu/services/mlc or visit the MLC at elcazo.cabrillo.edu/mlc to see what is happening in the MLC at any time.

MESA

MATHEMATICS, ENGINEERING, SCIENCE ACHIEVEMENT

MESA is one of the country’s oldest and most successful programs to assist students in preparing for careers in math-based fields. Established in California in 1970, MESA programs exist at secondary, university, and community college levels. Cabrillo’s MESA Program sponsors the MESA Study Center and provides:

- Academic Excellence Workshops-participating students meet twice a week to sharpen skills and improve understanding for selected math, physics, or engineering courses;
- A study center equipped with computers and a small reference library of science and math textbooks, and videos; and
- Drop-in and group tutoring in math and sciences provided by math and science professionals and by students.

Another benefit available to all students in the MESA Study Center is the opportunity to be a member of a supportive community founded on academics, the setting of high goals, and steady perseverance toward these goals. This sense of community and shared purpose usually has a strong positive effect on retention and success.

Extra services and opportunities are offered to students who qualify for MESA membership. These services and opportunities include:

- An orientation course that acquaints the student with study skills, student survival techniques, transfer requirements, career choices, and resume writing;
- Field trips to industry sites, science museums, and prospective transfer universities;
- A counselor with expertise in science and math majors to establish an education plan and to ensure successful transfer;
- Scholarships, internships, leadership retreats, summer research programs;
- Calculator, computer, and locker checkouts; and
- Sponsored student travel to professional conferences.

Students intending to transfer in a math or science major who are also eligible to receive financial aid or who are the first in their families to attend college may be eligible for MESA membership. To find out more, come by the MESA Transfer Study Center in Room 714, call (831) 479-6503, or visit the website at http://www.cabrillo.edu/services/mesa.
OPEN ACCESS COMPUTER LAB

Students may use the Open Access Computer labs for word processing, spreadsheet and database applications, e-mail, and Internet by registering in CABT 510 anytime through the twelfth week of the semester. The Open Access Labs are located in the Library, the Aptos CTC (Building 1400) and Watsonville CTC (Room 4510). CABT 510 is a non-credit repeatable course. Students must register in at least one class at Cabrillo College to enroll in CABT 510.

READING CENTER

The Reading Center at Cabrillo provides reading instruction for students of nearly all reading abilities. Courses range from basic reading to transfer level speed reading and critical reading. In addition, the Reading Center offers open-entry/open-exit individualized reading and vocabulary labs for those who prefer self-paced work.

Reading Center services are provided at both the Aptos and Watsonville campuses. Reading Center hours will vary. See the Schedule of Classes for days and hours, or phone (831) 479-6573 or (831) 479-6442.

RE-ENTRY SERVICES

Today many people are examining and changing their goals. As a result, students who did not take advantage of, or who were denied educational opportunities in the past, now wish to return to school. Cabrillo College invites everyone to become a student and pursue his/her dreams. Make an appointment to see a counselor to explore the many opportunities available. Call (831) 479-6274 for more information.

SCHOLARSHIPS

Each year Cabrillo College awards a number of scholarships ranging in amounts from $25 to $2000. Awards are made on a competitive basis using the criteria for selection established by the donors of these scholarships. Consideration is given to scholastic achievement, academic promise, financial need, and community and campus involvement. The application deadline is generally in early December. Additional information regarding application procedures for scholarships may be obtained from the Financial Aid and Scholarships Office, either Aptos campus or Watsonville Center.

Extended Opportunity Program and Services (EOPS)

EOPS grants are awarded through the Financial Aid Office to students with verified exceptional need who qualify under state program guidelines as determined by the EOPS Office.

Cooperative Agencies Resources for Education (C.A.R.E.)

C.A.R.E. is a state-funded program for EOPS eligible students who are single heads of household with children up to 14 years of age currently receiving CalWORKS.

STUDENT HEALTH SERVICES

Student Health Services provides a variety of health and education-related services in Room 912, adjacent to the Student Center in the 900 Building at the Aptos campus, and during limited hours at the Student Resource Center at the Watsonville Center. Medical services, including assessment, diagnosis, and treatment, are provided by registered nurses and family nurse practitioners for common illnesses, minor injuries, and monitoring of chronic conditions such as asthma and hypertension. Crisis counseling is available on a walk-in basis with health center nurses, and on-campus referrals for short term personal counseling can be arranged through the Health Center staff.

First aid services, over the counter medications, emergency birth control, and condoms are available on a drop-in basis at the Health Center. Testing services available include low-cost lab services, TB testing, HIV/AIDS testing, pregnancy, and strep tests. Routine immunizations are offered at low cost to students.

Physical exams and wellness assessments are offered to all students, and mandatory entrance screenings are provided for all Allied Health Programs, including Associate Degree Nursing, Radiologic Technology, and the Medical Office Assistant program. Student Health Services provides TB screening for all adults associated with the Cabrillo College Children’s Center. In addition, work-related physicals for students with off-campus employment are provided.

Reproductive health services are available at the health center through a contractual relationship with Planned Parenthood Mar Monte, allowing students convenient, low-cost access to these programs.

Health education and wellness enhancement are a major focus of the Health Services staff, not only for students, but for the entire campus community. Health fairs, immunization clinics, screenings, and educational materials are provided to faculty, staff, and students.

Limited hours and services are also available at the Watsonville Center through the Student Resource Center in room 4320. Call (831) 477-5134 for information.

STUDENT EMPLOYMENT

The Student Employment staff actively serves Cabrillo College students and graduates who are seeking employment in full- or part-time positions off campus. The Student Employment Office is also the central office for all on-campus student jobs, including Work Study and Fast Track positions. All on- and off-campus student jobs are listed online on the Student Employment web site. Additionally, all hiring paperwork for on campus student jobs is processed by the Student Employment Office. Workshops on job seeking skills are offered each semester, and individualized assistance with resumes is available by appointment. Phone, fax and computer access to jobs is available to students through the center, which is located in Room 804.

The Student Employment Office enjoys the confidence of a wide range of employers who regularly list job openings and to whom qualified students are referred. The Student Employment service is integrated with the total educational process of the College and works cooperatively with occupational education departments, the College Career Planning Center, Financial Aid Office, and Cooperative Work Experience Education. Call (831) 479-6413 for additional information.

STUDENT RIGHTS AND RESPONSIBILITIES

Student Rights–The Cabrillo Community College District is committed to the protection of the individual rights of all students. Pursuant to Title VI of the Civil Rights Act, 1964, the protection of these rights is guaranteed in regard to sex, race, color, national origin, language, religion, age, disability, or sexual orientation.

Should the situation arise in which a Cabrillo College student suspects that these rights have been violated in the application of district policies or local, state, or federal law, students will be given the opportunity to seek resolution of further complaint through an established procedure.

Administrative regulations describing the procedures for student rights and responsibilities are available in the Office of the Dean of Student Services, Room 914.
Student Responsibilities—All students who register for classes at Cabrillo College have the responsibility of attending class regularly, completing assignments on time, doing their own work (not plagiarizing), demonstrating respect for faculty, administration, staff, and all Cabrillo College community members. All Cabrillo College students have the responsibility of respecting the College campus, equipment, and materials and reporting abuse or vandalism of such to the proper authorities. All Cabrillo College students have the responsibility of demonstrating professional behavior and following the guidelines described in the Student Rights and Responsibilities Handbook.

STROKE AND ACQUIRED DISABILITY CENTER

The Stroke and Acquired Disability Center offers a series of special classes for adults with functional loss, and for caregivers, including mobility and fitness skills, independent living skills, speech, hearing, and language skills, and dealing with disabilities. Classes are located in the Stroke Center in Delaveaga Park, Santa Cruz. Transportation is available through Metro ParaCruz. A physician’s approval will be required. Call (831) 425-0622 for enrollment information.

TRANSFER/CAREER CENTER

The Cabrillo Transfer/Career Center is designed to provide services to students who plan to transfer to four-year colleges and universities and to encourage and facilitate the transfer of students who have been historically underrepresented in higher education. Students are encouraged to participate in the ongoing Transfer/Career Center services which are published monthly in the Transfer/Career Center events calendar, or to visit the Transfer/Career Center and take advantage of the transfer resource library. Counseling faculty all have strong and recent training in Transfer Advising and preparation for competitive Universities and majors. Staff are available to assist students with applications, research, and access to information. The Transfer/Career Center is also open to both students and community members. Few life decisions are more important than determining how to shape one’s future. The Transfer/Career Center staff assists students in self-assessment of interest, skills, values, limitations and the exploration of the job market. Based on assessment and personal goals, students receive assistance in evaluating possible careers that lead to success and satisfaction. Career and academic counseling is available to help students develop educational and vocational plans leading to entry into career fields, vocational training and transfer to four year universities. The Transfer/Career Center offers professional career counseling and assessment, courses in career planning, workshops on career planning and job seeking skills, interest and personality assessment, a career library, and computer work stations. Career assessment and counseling are offered to the community for a modest fee.

The Transfer/Career Center is located in the 100 Building. For more information, call (831) 479-6385. At the Watsonville Center, Transfer/Career Center resources are available at the Student Resource Center in Room 4320, or call (831) 477-5134.

TUTORIAL CENTER

The Tutorial Program offers group assistance to all Cabrillo College students with special services available to students enrolled in EOPS, Disabled Students Program and Services (DSPS) and certain vocational majors. All tutorial staff and many tutors are bilingual in Spanish and English. The Tutorial Center offers CG 205L, a corequisite of CG 205 (Academic Survival Skills), where students practice study skills learned in their class. Unit credit is available for this lab (1-3 units).

The Center is open Monday 8:00 a.m.–5:00 p.m., Tuesday-Thursday, 8:00 a.m.–6:00 p.m. and Friday 8:00 a.m.–4:00 p.m. Interested persons may receive more information at the Center, Room 1080, or by calling (831) 479-6470 or (831) 479-6126.

WATSONVILLE INTEGRATED LEARNING CENTER

Staff at the Integrated Learning Center in room 4410 on the second floor of the Watsonville Center provide tutoring in math, English and other subjects, labs in writing (ENGL 100L, ENGL 290), ESL and reading, and assistance with various learning resources. Students have access to computers, study space for individuals and groups, course reserve materials and a reference collection. Library cards are issued on site and other services, including checkout and return, are facilitated online. Videos for telecourses, language lab materials, and other media are available for viewing and checkout. Hours during the semester are 9 am to 8 pm Monday - Thursday and 9 am - 4 pm on Friday. Call (831) 477-5155 for more information.

WRITING CENTER AND ESL LAB

The Writing Center tutoring staff is dedicated to helping students strengthen their writing and grammar skills. The Center offers English 100L, the English 100 co-requisite group lab that focuses on grammar and mechanics. Students may also sign up for open-entry, individualized labs in grammar, spelling, and writing, and they may drop in for free tutoring when referred by a teacher or counselor (English 502L). For current hours of service and more information about tutoring services, call (831) 479-6319.

The ESL Lab is part of the Writing Center and provides tutorial assistance to students for whom English is not the primary language. To earn credit on a drop-in basis, register for courses numbered ESL 200L to ESL 204L for ½ or 1 unit. ESL students may also sign up for ESL 502 for no credit and at no cost. Please call (831) 479-5790 for more details.

All Writing Center and ESL Lab courses are credit/no credit and open to all Cabrillo students.
ASSOCIATE DEGREE

The awarding of an Associate Degree represents more than an accumulation of units. It symbolizes a thoughtful attempt on the part of Cabrillo College to introduce students to patterns of learning experiences designed to develop specific capabilities and insights described by the four college core competencies. A student earning an Associate Degree from Cabrillo will be competent in:

- **Communication**
  (Reading, Writing, Listening, Speaking and/or Conversing)

- **Critical Thinking and Information Competency**
  (Analysis, Computation, Research, Problem Solving)

- **Global Awareness**
  (An Appreciation of Scientific Complexities, Social Diversity and Civics, and Artistic Variety)

- **Personal Responsibility and Professional Development**
  (Self-Management and Self-Awareness, Social and Physical Wellness, Workplace Skills)

An Associate in Arts Degree is primarily a liberal arts degree, though the major may be in a specific field, a general area, or in liberal arts itself. In 1998, Cabrillo established two new transferable Associate in Arts Degrees that combine the admissions requirements of either the University of California or the California State University with the Cabrillo graduation requirements. Please see the Combined Requirements for the A.A. and Intersegmental General Education Transfer Curriculum (IGETC) or the Combined Requirements for the A.A. and California State University General Education.

The Associate in Science Degree is primarily oriented to occupational programs and is designed and intended for those who seek employment with a two-year degree. In some majors, a student may choose to earn either an Associate in Arts or an Associate in Science Degree.

The completion of an Associate in Arts or an Associate in Science Degree does not ensure that a student can transfer directly to a four-year college or university. Students interested in transferring should consult a counselor and the catalog of the institution to which transfer is intended. Only one English course below transferable freshman composition may be used toward the Associate Degree. Units gained in 200 level courses will not count towards the Associate Degree. General Education courses from regionally accredited colleges or universities that have an equivalent at Cabrillo will be used in the area that best serves the student; either the general education area designations of the original institution or the pattern offered by Cabrillo.

REQUIREMENTS FOR THE ASSOCIATE IN ARTS (A.A.) DEGREE

Requirements are effective for students entering Cabrillo College fall 1991 and thereafter.

GENERAL EDUCATION REQUIREMENTS . . . 30 UNITS

Area A: Communications & Critical Thinking . 6 units

**A-1: Composition**

*Goal:* To ensure that Cabrillo graduates read, write, and speak critically and competently. Because acquiring and refining literacy is an ongoing process reinforced through writing-intensive courses, students should complete Area A requirements early in their studies. Speaking and listening skills are reinforced through multiple opportunities for interpersonal communication and small group discussion in Area A courses.

**Students will be able to:**

Understand and demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing, and presentation. In so doing, students will learn to:

1. Develop a topic, using abundant detail and example and using non-narrative writing techniques, including comparison, summary, argument, analysis, and definition
2. Unify essays through natural and logical transitions
3. Show control of all major conventions of Standard English grammar, usage, and punctuation

**Select 3 units from:**

1) English 100, 1A, #1AMC

A-2: Critical Thinking

*Goal:* To develop thinkers who are able to construct arguments utilizing factual, creative, and rational modes of thought and using words, symbols, and numbers as appropriate. To integrate new skills into their customary manner of thinking, students must be actively engaged in practicing thinking skills and applying them to open-ended as well as practical problems.
Students will be able to:

a) Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected
b) Identify premises, conclusions, claims, assumptions, and biases in one's own argument as well as in the arguments of others
c) Avoid errors in reasoning and unexamined assumptions and identify them in the arguments of others
d) Imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives that can give alternative meanings or solutions to given situations or problems
e) Recognize and articulate the value assumptions which underlie and affect decisions, interpretations, and evaluations made by ourselves and others.

Select 3 units from:

2) Business 5; Communication Studies 1, 2, 4, 10; Computer Science 1, 11; English 1B, #1BMC, 2, #2MC, Mathematics (any, excluding 200 level courses); Philosophy 12, 49

All of Area A must be completed with a "C" or better.

Area B: Natural Science . . . . . . . . . . . . . . . . . . 6 units

Area B-1

Goal: To improve students' understanding of natural science principles and of the ways in which scientists investigate natural science phenomena.

Students will be able to:

a) Effectively communicate ideas from the physical sciences
b) Understand and apply the scientific method in the physical sciences
c) Demonstrate understanding of scientific theories from the physical sciences
d) Apply physical models to explain the behavior of commonly occurring phenomena
e) Articulate how measurement errors impact the application of scientific models.

Select 3 units from the following:

1) Physical Universe: Astronomy 3, 4, 8A*, 10, 11; Chemistry 1A*, 2*, 5*, 10*, 12A, 12B, 30A*, 30B*, 32*; Environmental Science 10; Geography 1, 1L*, 7; Geology 10*, 15, 20*; Meteorology 1, 1L*; Oceanography 10*, Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

Area B-2

Goal: To improve students' understanding of complex and varied life forms and life processes.

Students will be able to:

a) Effectively communicate concepts from the biological sciences
b) Understand and apply the scientific method in the biological sciences
c) Demonstrate understanding of scientific principles from the biological sciences
d) Apply biological principles to interpret the observations of the natural world.

Select 3 units from the following:

2) Life Forms: Anthropology 1, 1L*; 5; Biology 1A* 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 15ABCD* (min 3 units), 21A*; Horticulture 1A*; 1B*; Psychology 4

Laboratory courses are marked with an asterisk (*); one lab science is required.

Area C: Humanities . . . . . . . . . . . . . . . . . . 6 units

Goal: To enrich and expand students' knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and thought. Through study in the disciplines of literature, philosophy, and the fine and performing arts, students will engage in critical analysis, develop aesthetic judgments, and learn to appreciate the arts and humanities. Students will learn respect for cultural diversity and value the multiple voices which contribute to the health and vitality of society.

Students will be able to:

a) Demonstrate awareness of the scope and variety of works in the arts and humanities
b) Critically appreciate those works as expressions of individual and universal values within historical, social, and cultural contexts
c) Analyze the aesthetic qualities of works in the arts and humanities
d) Engage in the creative process of linguistic expression, philosophical reasoning, fine and performing arts, and analytical and creative writing
e) Develop and express informed personal responses to works in the arts and humanities

Select courses from at least two different departments:

Art 2A, 4, 5, 7A, 8A, 24, Art Photography 9A, Art History 10, 11, 12, 13, 14, 16, 17, 19, 20A, 20B, #52, 53, 77; Chinese 1, 2; Dance 10; English 1B, #1BMC, 12A, 12B, 12C, 12D, 12E, 12F, 17, 20A, 20B, #24A, #24B, 30A, 30B, 31, 32, 33, 34, #39, 40, #41A, #41B, #45, 46A, 46B, 47, 48A, 49A, 49B; French 1, 2, 3, 4, 10; German 1, 2, 3, 4, 10; History #2A, #2B, 4A, 4B; Italian 1, 2, 3; Japanese 1, 2; Music 1, 5, 6, 10, #11A, #11LA, #12, #13A, 17A, 19, 33A, 34, 35, 36, 38, 40, 46, 49, 51A, 54, 55, 58, 77, 82; Philosophy 4, 6, 7, 8, 9, 10, #14, #15, 16; Sign Language Studies 1, 2, 3; Spanish 1, 2, 3, 4, 5A, 6A, 6B, 10A, 18B, 16, 17, 25, 26, #30B; Theatre Arts 7, #8, 9, 10A, 28, 29, 77

Area D: Social & Behavioral Sciences . . . . . . . . . 9 units

Goal: To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Students will be able to:

a) Employ the methods and data that historians and social/behavioral scientists commonly use to investigate the human condition
b) Identify important information resources in history and the social/behavioral sciences
c) Examine institutions and processes across a range of historical periods and social settings
d) Use and critique models and methods for explaining behavior
e) Articulate and analyze alternative approaches to the solution of contemporary social issues.

1) Select one U.S. History course from the following:
History 14, 15, 17A, 17B, #18A, #18B, #21A, #21B, #29A, #29B

2) Select one U.S. Political Science course from the following:
PS 1 or 5

3) Select a third course to complete the 9-unit requirement: Anthropology #2, 3, #6, 7B, #7, 17; Bilingual/Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32; Economics 1A, 1B; Environmental Science 20; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4B, 6, 14, 15, #16A, #16B, #16C, 17A, 17B, #18A, #18B, #19A, #19B, #19C, #21A, #21B, 24, #29A, #29B; Journalism 21; Political Science 1, 2, 3, 4, 5; Psychology 1, 2, 6, 8, 12, 26, 31, 33; Sociology 1, #2, 3, 5, #8, 47; Women's Studies #5, #6, 7, 10, 11, 13
Area E: Lifelong Understanding & Self-Development . . . . 3 units

Goal: To increase students' knowledge and understanding of self, others, and interpersonal relationships from a physiological, psychological, and/or social context throughout the life cycle.

Students will be able to:

a) Develop the abilities to synthesize course material, including theoretical frameworks and their applications
b) Assess themselves and others in relationship to course content
c) Develop the ability to apply self-selected course concepts for increased efficacy in their lives.

Select from:

Communication Studies 7, #12; Culinary Arts and Hospitality Management 20; Counseling & Guidance 1, 54, 58, 59; Early Childhood Education 31, 33; Health Science 10, 12, 14, 15, 20, 21; Psychology 33, 35AB, 35C, 37AB, 37C, 39AB, 39C; Sociology 5

MULTICULTURAL STUDIES REQUIREMENT . . . . . . . . . . 3 units

Goal: To promote critical thinking and enrich students' understanding of cultural diversity by studying under-represented ethnic and racial groups in the countries of their origin or in the United States.

Students will be able to:

a) Analyze their own attitudes, behaviors, and beliefs regarding diversity and bias
b) Demonstrate an appreciation for diversity and multiculturalism, one that allows for the development of skills leading to effective communication and satisfactory social relations
c) Recognize the historical experiences of ethnic and racial groups in the United States who have been targets of individual and institutional racism and classism
d) Recognize the contributions to American society and culture made by ethnic groups who have suffered discrimination and exclusion
e) Explore the development of group and individual identity within unequal power relations while addressing the unique historical and contemporary responses from within each group.

Select from:

Anthropology 2, 6, 7, 8, 9E, 16, 17; Art History 16, 17, 18, 19, 52; BBS 32; Communication Studies 12; English 1AMC, 1BMC, 2MC, 24A, 24B, 39, 41A, 41B, 45; Geography 2, 4; History 2A, 2B, 6, 16A, 16B, 16C, 18A, 18B, 19A, 19B, 19C, 21A, 21B, 29A, 29B; Music 11A, 11LA, 12, 13A; Philosophy 14, 15; Sociology 2, 3, 8; Spanish 3OB, 2Theatre Arts 8; Women's Studies 5, 6

Multicultural courses are marked with a number sign (#) in the GE areas and may be double counted.

Note: Courses taken to meet the Multicultural Studies Requirement also count under appropriate areas for general education.

MAJOR REQUIREMENTS . . . . . . . . . . . . . . . . . . . . . 20 units

The major may be in a specific field, a general area, or in liberal arts. A counselor or advisor will help you develop a major program of studies.

MATHEMATICS COMPETENCY REQUIREMENT

Goal: To promote critical thinking and logical reasoning while developing problem solving skills by studying the structure of the real number system.

Students will be able to:

a) Show a basic sense of numbers, including approximation and estimation
b) Manipulate algebraic symbols and work a variety of basic algebra problems
c) Translate problem situations into an appropriate representation and use that representation to solve the problem at hand
d) Interpret, understand, and explain mathematical problems in verbal, numerical, symbolic, and graphical settings
e) Understand the connections of mathematics to other disciplines.

The Mathematics Requirement may be met by successful completion of intermediate algebra or equivalent or a higher-level mathematics course with a grade of "C" or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

ELECTIVES . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0-10 UNITS

Elective units, in addition to general education and major units, may be needed to complete the required total of sixty (60) semester units.

The cumulative grade point average for the Associate in Arts Degree must be 2.0 ("C") or better in a published curriculum which includes the general education requirements.

Twelve (12) semester units may be credit ("CR") grades instead of letter grades. (These 12 units can be in addition to those courses regularly using Credit/No Credit grading.)

At least twelve (12) of the required sixty (60) semester units must be completed in residence at Cabrillo College.

Note: A course may be used to meet a requirement in only one area, except for multicultural studies.

REQUIREMENTS FOR THE ASSOCIATE IN SCIENCE (A.S.) DEGREE

Requirements effective for students entering Cabrillo College fall 1991 and thereafter.

GENERAL EDUCATION REQUIREMENTS . . . . . . . . . 21 UNITS

Area A: Communications & Critical Thinking . . . . . 6 units

Select 3 units from:

1) English 100, 1A, #1AMC or CABI 157

Select 3 units from:

2) Business 5; Communication Studies 1, 2, 4, 10; Computer Science 1, 11; English 1B, #1BMC, 2, #2MC; Mathematics (any, excluding 200 level); Philosophy 12, 49

All of Area A must be completed with a "C" or better.

Area B: Natural Science . . . . . . . . . . . . . . . . . . . . . 3 units

Goal: To increase students' understanding of scientific principles and their applications to the world around us.

Students will be able to:

a) Effectively communicate scientific ideas
b) Understand and apply the scientific method
c) Demonstrate understanding of scientific theories and principles
d) Apply scientific models to explain the behavior of commonly occurring phenomena.

Select 3 units from the following:

Physical Universe:
- Astronomy 3, 4, 8A*, 10, 11; Chemistry 1A*, 2*, 5*, 10*, 12A, 12B, 30A*, 30B*, 32*
- Environmental Science 10; Geography 1, 1L*, 7; Geology 10*, 15, 20*; Meteorology 1, 1L*; Oceanography 10*; Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12
- Life Forms: Anthropology 1, 1L*, 5; Biology 1A*, 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 15ABCD*(min 3 units), 21A*; Horticulture 1A*, 1B*; Psychology 4

Laboratory Sciences: See courses marked with an asterisk (*). A lab science is strongly recommended.
Area C: Humanities ........................................... 3 units
Select 3 units from the following:
Art 2A, 4, 5, 7A, 8A, 24, Art Photography 9A; Art History 10, 11, 12, 13, 14, #16, #17, #19, 20A, 20B, #52, 53, 77; Chinese 1; 2; Dance 10; English 1B, #1BM, 12A, 12B, 12C, 12D, 12E, 12F, 17, 20A, 20B, #24A, #24B, 30A, 30B, 31, 32, 33, 34, #39, 40, 41A, 41B, #45, 46A, 46B, 47, 48A, 49A, 49B; French 1, 2, 3, 4, 10; German 1, 2, 3, 4, 10; History #2A, #2B, 4A, 4B; Italian 1, 2, 3, 10; Japanese 1, 2; Music 1, 5, 6, 10, #11A, #11LA, 12, #13A, 17A, 19, 33A, 34, 35, 36, 38, 40, 46, 49, 51A, 54, 55, 58, 77; Philosophy 4, 6, 7, 8, 9, 10, #14, #15, 16; Sign Language Studies 1, 2, 3; Spanish 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, #30B; Theatre Arts 7, #8, 9, 10A, 28, 29, 77

Area D: Social & Behavioral Sciences ................. 6 units
1) Select a U.S. History or U.S. Political Science course from the following:
History 14, 15, 17A, 17B, #18A, #18B, #21A, #21B, #29A, #29B, Political Science 1, 5
2) Select a second course to complete the 6 unit requirement:
Anthropology #2, 3, #6, #7, #8, #17; Bilingual Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32; Economics 1A, 1B, Environmental Science 20; Geography #2, #4, 5; Health Science 15; History #2A, #28, 4A, 4B, #6, 14, 15, #16A, #16B, #16C, 17A, 17B, #18A, #18B, #19A, #19B, #19C, #21A, #21B, 24, #29A, #29B; Journalism 21; Political Science 1, 2, 3, 4, 5; Psychology 1, 2, 6, 8, 12, 26, 31, 33; Sociology 1, #2,#3, 5, 8, 47; Women’s Studies #5, #6, 7, 10, 11, 13

Area E: Lifelong Understanding & Self-Development ........... 3 units
Communication Studies 7, #12; Culinary Arts and Hospitality Management 20; Counseling and Guidance 1, 54, 58, 59; Early Childhood Education 31, 33; Health Science 10, 12, 14, 15, 16, 20, 21; Psychology 33, 35AB, 35C, 37AB, 37C, 39AB, 39C; Sociology 5
A student graduating from the Associate Degree nursing program is considered to have satisfied the essential content of Area E for the associate degree and shall be considered to have satisfied the unit requirement in Area E for the associate degree.

MULTICULTURAL STUDIES REQUIREMENT ............ 3 Units
Select from:
Anthropology 2, 6, 7, 8, 9E, 16, 17; Art History 16, 17, 18, 19, 52; Bilingual/ Bicultural Studies 32; Communication Studies 12; English 1AMC, 1BM, 2MC, 24A, 24B, 39, 41A, 41B, 45; Geography 2, 4; History 2A, 2B, 6, 16A, 16B, 16C, 18A, 18B, 19A, 19B, 19C, 21A, 21B, 29A, 29B; Music 11A, 11LA, 12, 13A; Philosophy 14, 15; Sociology 2; 3, 8; Spanish 30B; Theatre Arts 8; Women’s Studies 5, 6
Multicultural courses are marked with a number sign (#) in the GE areas and may be double counted.
Note: Courses taken to meet the Multicultural Studies Requirement also count under appropriate areas for general education.

MAJOR REQUIREMENTS .......... 30 Units
• Major (30-unit minimum) Note: The A.S. Degree major is normally in a two-year vocational-career program, such as those in business and the technical fields.
• The A.S. Degree major is a specialized major and should be planned with the aid of a counselor or faculty advisor.

MATHMATICS COMPETENCY REQUIREMENT
The mathematics requirement may be met by successful completion of elementary algebra or equivalent or a higher-level mathematics course with a grade of “C” or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

ELECTIVES ............... 0-9 Units
• Elective units, in addition to general education and major units, may be needed to complete the required total of sixty (60) semester units.
• The cumulative grade point average for the Associate in Science Degree must be 2.0 (“C”) or better in a published curriculum which includes the general education requirements.
• Twelve (12) semester units may be credit (“CR”) grades instead of letter grades. (These 12 units can be in addition to those courses regularly using credit-no credit grading.)
• At least twelve (12) of the required sixty (60) semester units must be completed in residence at Cabrillo College.
Note: A course may be used to meet a requirement in only one area, except for multicultural studies.

MODEL PROGRAMS FOR OCCUPATIONAL (A.S.) ASSOCIATE DEGREES
Cabrillo College occupational majors are listed alphabetically in this catalog and are followed by program requirements. Exceptions or substitutions to program requirements must be approved by the Program Chair.

REQUIREMENTS FOR MULTIPLE OCCUPATIONAL ASSOCIATE DEGREES
Requirements for Multiple Associate Degrees within Occupational Programs
To be eligible for multiple associate degrees within occupational programs, a student must satisfactorily complete all the requirements of the majors with at least a 2.0 grade point average. In general, multiple associate degrees cannot be awarded within one occupational program unless otherwise stated in the specific program description of this catalog.

If the student has not been enrolled at Cabrillo College for two or more consecutive semesters, s/he will need to meet any new general education and major requirements in effect during the academic year in which s/he returns.

REQUIREMENTS FOR MULTIPLE ASSOCIATE DEGREES IN TRANSFER PROGRAMS
To be eligible for multiple associate degrees in transfer programs (or a combination of occupational and transfer program degrees), a student must satisfactorily complete all the requirements of the majors with at least a 2.0 grade point average. In addition, students must complete at least ten units in coursework specific to their major requirements (as per the suggested programs in the Cabrillo College Catalog) that are not replicated in the major requirements for any other degree they seek or possess.

If the student has not been enrolled at Cabrillo College for two or more consecutive semesters, s/he will need to meet any new general education and major requirements in effect during the academic year in which s/he returns.

MODEL PROGRAMS FOR (A.A./A.S.) ASSOCIATE DEGREES
Cabrillo College majors are listed alphabetically in this catalog and are followed by a “Model Program.” The model program includes courses that may also fulfill lower-division major requirements for transfer to four-year colleges and universities. The courses listed under the model programs are courses that fulfill the requirements for an A.A. Degree in that discipline at Cabrillo, and may fulfill some of the lower-division major requirements for a number of four-year universities in our area. However, transfer students should follow the major preparation listed for their chosen transfer school. This information can be found at “http://www.assist.org” or consult a Cabrillo Counselor.
Transfer students must also meet the admissions requirements of the 4-year transfer university. Please see the handout in the Transfer Center entitled "Essential Transfer Information" or follow the Combined Requirements for the IGETC AA or the Combined Requirements for the CSU GE AA. These requirements are listed in the following pages of this Catalog.

Transfer Requirements for UC & CSU

Students who plan to transfer should note that each college and university has its own admission, general education, and lower-division major requirements that must be completed prior to transfer, and these requirements vary greatly from institution to institution.

General Education Requirements

General Education Requirements are a major portion of all degree programs. Students have several options for completing General Education Requirements depending on the degree they plan to attain, and the campus or institution to which they plan to transfer. Following are the general education patterns most commonly followed by Cabrillo transfer students:

1. California State University’s (CSUs) General Education Requirements for a BA/BS Degree (yellow handout available in the Counseling Division and Transfer Center). This general education pattern fulfills the lower division general education required by the CSU System. By following the Combined Requirements for the A.A. Degree and CSU General Education (yellow handout) students complete the admissions requirements, the lower division general education, and the lower division major preparation (if planned correctly) needed for admission to the California State University.

2. Intersegmental General Education Transfer Curriculum (IGETC) for a BA/BS Degree at any of the University of California (UC) or California State University (CSU) campuses (lavender handout available in the Counseling Division and Transfer Center). This general education pattern fulfills the lower division general education requirements for either the California State University or the University of California systems. By following the Combined Requirements for the A.A. Degree and the IGETC (lavender handout) students complete the admissions requirements, the lower division general education, and the lower division major preparation (if planned correctly) needed for admission to either the California State University or the University of California systems. The UC system puts restrictions on the use of IGETC for some majors, check ASSIST (www.assist.org) or a Cabrillo college counselor for advice.

3. For each campus of the University of California, a student may complete the General Education pattern specific to that campus. The UC Santa Cruz’s General Education Requirements for a B.A./B.S. Degree (white or buff-colored handout) is available in the Counseling Division and Transfer Center. Other campus specific General Education patterns can be found on ASSIST at www.assist.org. Campus specific general education patterns do not incorporate the admission requirements for the University. Students following these patterns must make sure that they have also fulfilled the UC requirements for admission (see “Essential Transfer Information,” green handout) available in the Counseling Division, the Transfer Center, and on the Cabrillo College Transfer and Articulation website.

Students should consult with a Cabrillo counselor to determine which general education pattern is appropriate given their academic goals.

TRANSFER TO THE UNIVERSITY OF CALIFORNIA
(Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, Santa Barbara, Santa Cruz)

Admission Requirements for Transfer Students

For admission to the University of California (UC) as a transfer student, students must complete at least 60 UC transferable semester units with a 2.4 minimum grade point average; to be competitive at all nine undergraduate campuses, students should have a 3.0 grade point average or higher. (UC Berkeley and UCLA both require a GPA higher than 3.0 to be selective.) Information on course transferability is included in each course description. Unless students were eligible for admission to the University of California directly from high school, specific course requirements must also be met: one transferable college course in mathematics, two transferable courses in English composition, and four transferable college courses chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences. These specific requirements must be passed with grades of "C" or higher. The course in mathematics must have a prerequisite of intermediate algebra (MATH 15 does not meet this requirement). The University will accept a maximum of 70 UC transferable semester units from California Community Colleges.

General Education Requirements

Students have two options in completing the general education requirements for the University of California.

Option 1) The Combined Requirements for the A.A. Degree and IGETC. This option allows students to complete both the IGETC requirements and the requirements for an A.A. Degree. The IGETC is accepted at all campuses of both the University of California and the California State University provided the entire curriculum (34 units) is completed prior to transfer.

Option 2) Each campus of the University of California has its own campus-specific general education requirements. Prospective transfer students should visit the Transfer Center in Building 100 to look up the campus-specific general education requirements on the Internet (www.assist.org) or to examine the catalog of the campus to which they plan to transfer for specific general education requirements. Students should meet with a Cabrillo counselor to assist them in choosing their general education option.

Lower-Division Major preparation

To determine the lower-division courses required for a specific campus and major, students should refer to the UC catalog to determine the lower-division courses required for their major. Determining lower-division major preparation for a given campus and major can be complex, and requirements change frequently. It is strongly advised that students meet with a Cabrillo counselor to assist them with this process.

Transfer Admission Agreements (Guaranteed Admission)

While eligible students can be admitted to any campus of UC, Cabrillo has special transfer admission agreements (TAs) with UC Davis, UC Merced, UC Riverside, and UC Santa Cruz. Students who are qualified may write a TAA which guarantees admission to these campuses. Contact the Counseling office at (831) 479-6274 to schedule an appointment either to develop a transfer plan or to write a transfer admission agreement.

COMBINED REQUIREMENTS FOR THE A.A. DEGREE AND IGETC TRANSFERABLE TO UC AND CSU

By completing the following requirements, students will complete both an A.A. Degree at Cabrillo and the IGETC general education pattern which enables students to transfer to either the California State University (CSU) or the University of California (UC) with all admission and lower-division general education requirements met. Since requirements still vary slightly between the two university systems, students should read this information carefully. Caution: this degree does not guarantee admission to any specific campus in either the UC or CSU systems nor does it guarantee admission to a specific major.
UC-Combined Requirements for the IGETC A.A. Degree

(2.4 GPA required):
1. 60 UC transferable units;
2. *General Education-Complete IGETC Areas 1-5 plus the foreign language requirement;
3. Multicultural course (Complete only if you want an A.A. Degree before transfer);
4. Major-see Model Program section above.

*GE courses must be "C" or better.

CSU-Combined Requirements for the IGETC A.A. Degree

(2.0 GPA required):
1. 60 CSU transferable units;
2. *General Education-Complete IGETC Areas 1-5 including 5 courses in Area 4 for full certification for CSU;
3. Multicultural course (Complete only if you want an A.A. Degree before transfer);
4. Major-see Model Program section above.

*GE courses must be "C" or better.

AREA 1: COMMUNICATIONS & CRITICAL THINKING
6 units for UC, 9 units for CSU

Group a: English 1A or 1AMc#
Group b: English 2, 2MC#, Philosophy 49 (beg F03)
Group c: Communication Studies 1, 2, or 10 CSU only

AREA 2: MATHEMATICAL CONCEPTS & QUANTITATIVE REASONING
Select one Mathematics course. 3 units

Mathematics: Math 4, 5A, 5B, 5C, 6, 7, 10, 12, 13, 18 (beg S02), 23

AREA 3: ARTS AND HUMANITIES . . . . . . . . . . . . . . 9 units
Select one course from the Arts and one from the Humanities; the third course may be either arts or humanities.

Arts: Art History 10, 11, 12, 13, 14, 16#, 17#, 18#, 19#, 20A, 20B, 52#, 53, 77; Dance 10; Music 1, 5, 6, 10, 11A#, 11LA#, 12#, 13A#, 77, 82; Theatre Arts 8#, 9, 77

Humanities: English 1B, 1BMc#, 20A, 20B, 24A#, 24B#, 30A, 30B, 31, 32, 33, 34, 39#, 40, 41A#, 41B#, 45#, 46A, 46B, 47, 48A, 49A; French 3, 4; German 3, 4, History 2A#, 2B#, 4A, 4B; Italian 3; Philosophy 4, 6, 7, 8, 9, 10, 14#, 15#, 16; Spanish 3, 4, 6A, 6B, 25, 26, 30B#

AREA 4: SOCIAL AND BEHAVIORAL SCIENCES . . . . . . . 9 units
Select at least three courses from at least two different disciplines or an interdisciplinary sequence. For CSU full certification five courses are required.

Anthropology 2#, 3, 6#, 7# 17#; Bilingual Bicultural Studies 32; Early Childhood Education 31, 32; Economics 1A, 1B; Environmental Science 20; Geography 2#, 4#, 5; Health Science 15; History 2A#, 2B#, 4A, 4B, 6#, 14*, 15*, 16A#, 16B#, 16C#, 17A*, 17B*, 18A*, 18B*, 19A#, 19B#, 19C#, 21A*, 21B#, 24, 29A#, 29B##; Journalism 21; Political Science 1, 2, 3, 4, 5; Psychology 1, 6, 8, 12, 26, 31, 33; Sociology 1, 2#, 3#, 4, 5, 8#, 47; Women's Studies 7, 10, 11

The CSU system has a graduation requirement in U. S. History & U. S. Political Science. It's recommended that students complete these courses in addition to the above Area 4 courses prior to transfer. Choose a History course and a Political Science course marked * to meet this requirement before transfer. For full certification for CSU, a total of five courses are needed in Area 4.

AREA 5: PHYSICAL AND BIOLOGICAL SCIENCES: . . . . . . 7 units
Select one Physical Science and one Biological Science; one of these courses must have a laboratory, and the units for both sciences must total 7. Laboratory sciences are marked +.

Physical Science (3 - 5 units): Astronomy 3, 4, 8A#, 10, 11; Chemistry 1A+, 1B+, 2+, 5+, 10+, 12A, 12B; Environmental Science 10; Geography 1, 1L+, 7; Geology 10#, 15, 20#; Meteorology 1, 1L+; Oceanography 10+; Physics 2A+, 2B+, 4A+, 4B+, 4C+, 4D, 10, 10L+, 11+, 12

Biological Science (3 - 5 units): Anthropology 1, 1L+, 5; Biology 1A+, 1B+, 1C+, 4+, 5+, 6+, 11A+, 11B+, 11C+, 13A, 13AL+, 13B, 21A+ (as of S05); Psychology 4

FOREIGN LANGUAGE REQUIREMENT
(4 units if not met in high school - UC only)

Proficiency equivalent to two years of high school study of the same foreign language or one semester of college study of a foreign language is required. Foreign Language courses taken in high school may not be counted under AREA C - Humanities.

The following languages are offered at Cabrillo College:
Chinese, French, German, Italian, Japanese, Sign Language Studies, Spanish

MULTICULTURAL STUDIES REQUIREMENT . . . . . . . . . 3 units

One course must be taken in Multicultural Studies. Select a course from any area that is marked the number sign (#) or select from the following: BBS 32, COMM 12, WS 5, WS 6. If the course is listed within one of the general education areas on this form, one course may double count for both the multicultural studies requirement and for one of the above requirements.

MAJOR REQUIREMENTS
This A.A. Degree requires a total of 60 transferable units (UC transferable units for UC students or CSU transferable units for CSU students). Students transferring to CSU or UC may need to take additional lower-division courses to meet university requirements in their chosen major for their BA/BS Degree. Consult the catalog of the institution to which you plan to transfer and/or work with a counselor to select appropriate courses. Catalogs are available in the Transfer Center.

Please note: Only 4 units of PE activity courses may be counted toward the 60 unit requirement for students transferring to a UC.

REQUIRED GRADE POINT AVERAGE

The cumulative grade point average for this degree must be a minimum of 2.0 for CSU and 2.4 for UC. At least 12 units must be completed in residence at Cabrillo College. All general education courses must be completed with grades of C or better. Only 12 units may be taken for credit (CR grades) and these units may not be in AREA A or in mathematics. Students are also cautioned not to take courses in their major for CR grades. Students transferring to CSU or UC who complete this degree should request certification for IGETC. Forms to request certification are available in the Admissions Office, Building 100.

* Indicates course meets U.S. History/Constitutions Requirement.
** Indicates that UC credit may be limited. Please consult a Cabrillo College Catalog.
+ Indicates laboratory science.
# Indicates that course meets Multicultural Studies requirement.

UC SANTA CRUZ-CABRILLO COLLEGE TRANSFER PROGRAM

A UCSC transfer advisor has regularly scheduled office hours at Cabrillo. Appointments can be scheduled in the Transfer Center, Building 100. For more information, contact the Cabrillo College Transfer Center at (831) 479-6385.

Program Information
TRANSFER TO INDEPENDENT OR OUT-OF-STATE COLLEGES AND UNIVERSITIES

At Cabrillo College, we prepare students not only for the UC and CSU systems, but for any four-year college or university in the country. In the past few years, Cabrillo has transferred students to Stanford, Santa Clara, New York University, Sarah Lawrence, Yale, Duke, and many other independent and out-of-state colleges and universities. For more information, contact the Cabrillo College Transfer Center for research or an appointment (831) 479-6385.

TRANSFER TO THE CALIFORNIA STATE UNIVERSITY SYSTEM

(Bakersfield, Chico, Channel Islands, Dominguez Hills, Fresno, Fullerton, Hayward/East Bay, Humboldt, Long Beach, Los Angeles, Maritime Academy, Monterey Bay, Norridge, Cal Poly Pomona, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, Cal Poly San Luis Obispo, Cal Poly Pomona, San Marcos, Sonoma, Stanislaus)

Admission Requirements for Transfer Students

For admission to the California State University as a transfer student, students must complete at least 60 CSU transferable semester units with a 2.0 minimum grade point average; some campuses, Cal Poly San Luis Obispo and San Diego State in particular, are more selective and will require a higher grade point average. Information on course transferability is included in each course description in the Cabrillo College Catalog. Unless students were eligible for admission to the California State University directly from high school, specific course requirements must also be met for admission: one transferable college course in mathematics, one in English composition, one in critical thinking, and one in oral communication. These specific requirements must be passed with grades of “C” or higher. The course in mathematics must have a prerequisite of intermediate algebra. The university will accept a maximum of 70 UC transferable semester units from California Community Colleges.

General Education Requirements

Students have two options in completing the general education requirements for the California State University.

Option 1) the CSU General Education Requirements. These requirements consist of 39 semester units, which can be completed at Cabrillo College. Students are required to complete a minimum of 30 of the 39 units prior to transfer, however, it is in a student’s best interest to complete all 39 prior to transfer. Please refer to The Combined Requirements for the A.A. Degree/CSU GE requirements. This A.A. Degree allows students to complete the admissions, general education and major preparation requirements (with good planning) for the CSU campus of their choice and receive an A.A. Degree.

Option 2) the Intersegmental General Education Transfer Curriculum (IGETC), is accepted at all campuses of both the California State University and the University of California provided the entire curriculum (34 units) is completed prior to transfer (please refer to the information about the Transferable A. A. Degree/IGETC above). Students should meet with a Cabrillo counselor to assist them in choosing their general education option.

Lower-Division Major Preparation

To determine the lower-division courses required for a specific campus and major, students should refer to the ASSIST articulation database on the Internet (www.assist.org). These sites are bookmarked on the Internet stations in the Cabrillo Transfer Center, the 100 Building. If a CSU campus has not posted this information in ASSIST or on the Internet, students should refer to the CSU catalog to determine the lower-division courses required for their major. Determining lower-division major preparation for a given campus and major can be complex, and requirements change frequently. It is strongly advised that students meet with a Cabrillo counselor to assist them with this process.

Transfer Admission Agreements (Guaranteed Admission)

While eligible students can be admitted to any campus of CSU, Cabrillo has special transfer admission agreements (TAAs) with CSU Monterey Bay, Humboldt State, San Jose State, and San Francisco State. Students who are qualified may write a TAA which guarantees admission to these campuses. Contact the Counseling office at (831) 479-6274 to schedule an appointment either to develop a transfer plan or to write a transfer admission agreement.

COMBINED REQUIREMENTS FOR THE A.A. DEGREE AND CSU GENERAL EDUCATION TRANSFERABLE TO CSU

By completing the following requirements, students will complete both an A.A. Degree at Cabrillo and the CSU general education pattern which enables students to transfer to the California State University (CSU) with all admission and lower-division general education requirements met. Caution: This degree does not guarantee admission to any specific campus of the CSU system nor does it guarantee admission to a specific major. This degree requires a minimum of 60 transferable units to CSU and must include a multicultural studies class.

*The degree at Cabrillo requires a student to complete 30 of the 39 units of lower division general education including all of Area A and B4. If a student completes the recommended 39 units of general education, then all lower division general education required by CSU will be complete.

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION PATTERN

- CSU-Combined Requirements for the CSU GE A.A. Degree (2.0 GPA required):
  - 60 CSU transferable units;
  - General Education-Complete at least 30 units of the following general education courses including all of Area A & B4. It is advisable to complete all 39 lower division GE units including a US History and a US Political Science. Students who complete less than the 39 units in lower division will be required to complete those units at the university. All students will have at least 9 units of upper division GE to complete at the university;
  - Multicultural course (Complete only if you want an A.A. Degree before transfer);
  - Major-see Model Program section above.

*All Area A-B4-US History & US Political Science courses must be “C” or better.

California State University General Education Requirements

Area A: Communication & Critical Thinking: 9 units

Choose one course from each of the three sub-areas.
A1-Oral Communications: Communication Studies 1, 2, 10
A2-Written Communications: English 1A, #1AMC
A3-Critical Thinking: English 2, #2MC; Communication Stud 4; Philosophy 12, 49 Note: English 1B may be used here if taken through summer, 2005.

Area B: Natural Science & Mathematics: minimum of 9 units

Choose at least one course from the Physical Universe group and one course from the Life Forms group. At least one of these sciences must include a laboratory. Laboratory sciences are marked with an asterisk (*). Select one course from Mathematical Concepts and Quantitative Reasoning. (Note: all of these courses have a prerequisite of intermediate algebra).

B1-Physical Universe: Astronomy 3, 4, 8A*, 10, 11; Chemistry 1A*, 2*, 5*, 10*, 12A, 12B, 30A*, 30B*, 32*; Environmental Science 10; Geography 1, 1L*; Geology 10*, 15, 20*; Meteorology 1, 1L*; Oceanography 10*, Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D*, 10, 10L*, 11*, 12

B2-Life Forms: Anthropology 1, 1L*, 5; Biology 1A*, 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 15ABCD* (min 3 units) 21A* (as of F04); Psychology 4

Program Information | 47
**B3-Laboratory Sciences:** See courses marked with an asterisk (*) under B1 and B2. For general education credit, 1 unit laboratory courses must be taken with corresponding lecture courses (Geography 1+1L, Astronomy 10 or 11 +8A, Meteorology 1+1L).

**B4-Mathematical Concepts and Quantitative Reasoning:** Mathematics 4, 5A, 5B, 5C, 6, 7, 10, 12, 13, 15, 18

**Area C: Humanities & Fine Arts: minimum of 9 units**

Students must select at least 3 units from C1 (Arts) and 3 units from C2 (Humanities). No more than two courses may be selected from a single department. However, students may select a maximum of six units of music performance courses. Performance courses are marked with an asterisk (*).

C1-Art: History 10, 11, 12, 13, 14, #16, #17, *18, *19, 20A, 20B, #52, 53, 77; Dance 10; Music 1, 5, 6, 10, #11A, #11LA, #12, #13A, 77, 82; Theatre Arts 7, #8, 9, 10A, 77

Note: Students who completed the following courses fall 1995 or earlier will receive general education credit: ART 2A, 4, 5, 7A, 8A, 24, Art Photography 9A; Music 17A, 19, 33A, 34, 35, 38, 39, 40, 46, 49, 51A, 54, 55, 58; Theatre Arts 28, 29. A maximum of six semester units in performance courses is allowed.

C2-Humanities: English #1BMC, 12A, 12B, 12C, 12D, 12E, 12F, 17, 20A, 20B, #24A, #26B, 30A, 30B, 31, 32, 33, 34, #39, 40, #41A, #41B, #43, 46A, 46B, 47, 48A, 49A, 49B, French 1, 2, 3, 4, 10; German 1, 2, 3, 4, 10; History #2A, #2B, 4A, 4B; Italian 1, 2, 3, 10; Japanese 1, 2; Philosophy 4, 6, 7, 8, 9, 10, #14, #15, 16; Sign Language Courses 1, 2, 3; Spanish 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, #30B

Note: English 1B may be counted under C2 if not used to meet the A3 requirement (If taken through summer, 2005). English 1BMC may be counted only under C2. Students transferring to San Jose State University must select a literature or philosophy course under C2.

**Area D: Social & Behavioral Sciences: minimum of 9 units**

No more than two courses may be counted from any single department. It is recommended that courses in three departments be taken to insure breadth.

Anthropology #2, 3, #6, #7, #8, #17, Bilingual Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32; Economics 1A, 1B; Environmental Science 20; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4B, #6, 14", 15", #16A, #16B, #16C, 17A", 17B", #18A", #18B", #19A, #19B, #19C, #21A", #21B", 24, #29A", #29B"; Journalism 21; Political Science 1", 2, 3, 4, 5"; Psychology 1, 2, 6, 8, 12, 26, 31, 33; Sociology 1, #2, #3, 5, #8, 47; Women's Studies 7, 10, 11

*Note: CSU graduation requires fulfillment of a U.S. History, Constitution, and American Ideals requirement which may or may not be included in the general education package. Students should check the requirements of the campus to which they plan to transfer. Taking one history course and one political science course marked with an asterisk (*) will insure completion of this CSU graduation requirement.

**Area E: Lifelong Understanding and Self-Development: . . . 3 units**

Counseling and Guidance 1; Culinary Arts and Hospitality Management 20; Early Childhood Education 31+33 (1 unit); Health Science 10, 12, 14, 15, 20, 21; *Psychology 35AB, 35C, 37AB, 37C, 39AB, 39C

Also: Early Childhood Education **31, Psychology 33 and Sociology 5 may be used if not used to meet Area D requirements.

*Students must complete the ABC sequence (3 units) to receive general education credit for Psych 35 or 37 or 39.

**to meet area E students must take ECE 31+33.

* Indicates course meets Multicultural Studies requirement.

The total number of General Education semester units that can be certified by Cabrillo College is 39. Students must request certification of General Education from Admissions and Records prior to transfer. In order to have 39 units certified, students must complete 9 units from Area A, a minimum of 9 units each from Areas B, C, and D, and 3 units of Area E. (Students must have GE certified in order to use CR- “Credit” grades to satisfy GE requirements.)

**MULTICULTURAL STUDIES REQUIREMENTS**

**A.A. REQUIREMENT ONLY**

One course must be taken in Multicultural Studies. Select a course from any area that is marked with the number sign #. If the course is listed within one of the general education areas on this form, one course may double count for both the multicultural studies requirement and for one of the above requirements.

**MAJOR REQUIREMENTS**

This A.A. Degree requires a total of 60 CSU transferable units. Students transferring to CSU may need to take additional lower-division courses to meet university requirements in their chosen major for their B.A./B.S. Degree. Consult the catalog of the institution to which you plan to transfer and/or work with a counselor to select appropriate courses. Catalogs are available in the Transfer Center and on the Cabrillo College Transfer and Articulation website.

**CALIFORNIA ARTICULATION NUMBER (CAN) SYSTEM**

Cabrillo College participates in the California Articulation Number System. CAN is a system designed to identify some of the transferable, lower division, introductory and preparatory courses commonly taught within each academic discipline on campuses and to assign them a California Articulation Number (CAN). One of the basic premises of the CAN system is that a CAN course on one campus will be accepted in lieu of a CAN course on another participating campus. The courses are not necessarily identical to each other but are comparable and transferable. Lists of courses from campuses who have qualified to participate in the CAN system are available in the Counseling Office, Building 100.

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<td>Intro to Anthropology: Archaeology</td>
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<tr>
<td>AP 9A</td>
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<tr>
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<td>Survey of Art from Prehistoric Through Medieval Periods</td>
</tr>
<tr>
<td>AH 20B</td>
<td>Survey of Art from the Renaissance to the Present</td>
</tr>
</tbody>
</table>

Note: Courses marked with an asterisk (*) may be used if not used to meet Area D requirements.
ART 8A, Small Scale Metal/Jewelry = CAN ART 26
ART 31A, Painting = CAN ART 10
ART 32, Printmaking: Etching and Intaglio = CAN ART 20
ART 34A, Sculpture: Direct Process = CAN ART 12
BIO 1A, Cell and Molecular Biology = CAN BIOL 2
BIO 1B, Animal Diversity and Evolution = CAN BIOL 4
BIO 1C, Plant Biology and Ecological Principles = CAN BIOL 6
BIO 4, Human Anatomy = CAN BIOL 10
BIO 5, Human Physiology = CAN BIOL 12
BIO 6, Microbiology = CAN BIOL 14
BIO 1A+1B+1C = CAN BIOL SEQ A
BIO 4 + 5 = CAN BIOL SEQ B
BUS 5, Business Information Systems = CAN BUS 6
BUS 18, Business Law = CAN BUS 8
CAHM 20, Nutrition = CAN FCS 2
CHEM 1A, General Chemistry = CAN CHEM 2
CHEM 1B, General Chemistry = CAN CHEM 4
CHEM 5, Quantitative Analysis = CAN CHEM 12
CHEM 30A, Inorganic Chemistry for Health Occupations = CAN CHEM 6
CHEM 30B, Introductory Organic Chemistry and Biochemistry for Health Occupations = CAN CHEM 8
CHEM 1A + CHEM 1B = CAN CHEM SEQ A
CHEM 30A + CHEM 30B = CAN CHEM SEQ B
CJ 1, Introduction to Criminal Justice = CAN AJ 2
CJ 2, Criminal Law = CAN AJ 4
CJ 3, Criminal Evidence = CAN AJ 6
CJ 6, Criminal Investigation = CAN AJ 8
CS 1 + 1L, Introduction to Computers and Computer Technology plus lab = CAN CSCI 2
CS 11, Introduction to Programming Concepts and Methodology, C++ = CAN CSCI 22
CS 19, C++ Programming = CAN CSCI 16
CS 21, Introduction to Data Structures and Algorithms = CAN CSCI 24
CS 23, Discrete Mathematics = CAN CSCI 26
COMM 1, Public Speaking = CAN SPCH 4
COMM 2, Group Discussion = CAN SPCH 10
COMM 4, Persuasion and Argumentation = CAN SPCH 6
ECON 1A, Introduction to Macroeconomics = CAN ECON 2
ECON 1B, Introduction to Microeconomics = CAN ECON 4
ENGR 1A, Surveying = CAN ENGR 10
ENGR 15, Circuits = CAN ENGR 6
ENGR 25, Graphics and Design = CAN ENGR 2
ENGR 35, Statics = CAN ENGR 8
ENGR 45, Engineering Materials = CAN ENGR 4
ENGL 1A, College Composition = CAN ENGL 2
ENGL 1B, Composition and Literature = CAN ENGL 4
ENGL 12A, Creative Writing: Prose = CAN ENGL 6
ENGL 30A, American Literature = CAN ENGL 14
ENGL 30B, American Literature = CAN ENGL 16
ENGL 46A, Major British Writers I = CAN ENGL 8
ENGL 46B, Major British Writers II = CAN ENGL 10
ENGL 1A + 1B = CAN ENGL SEQ A
ENGL 46A + 46B = CAN ENGL SEQ B
ENGL 30A + 30B = CAN ENGL SEQ C
FREN 1, Beginning French = CAN FREN 2
FREN 2, Elementary French = CAN FREN 4
FREN 3, Intermediate French = CAN FREN 8
FREN 4, Intermediate French = CAN FREN 10
FR 1 + 2 = CAN FREN SEQ A
FR 3 + 4 = CAN FREN SEQ B
GEOG 1, Physical Geography = CAN GEOG 2
GEOG 2, Cultural Geography = CAN GEOG 4
GEOL 10, Intro to Earth Science = CAN GEOL 2
GRMN 1, Beginning German = CAN GERM 2
GRMN 2, Elementary German = CAN GERM 4
GRMN 3, Intermediate German = CAN GERM 8
GRMN 4, Intermediate German = CAN GERM 10
GRMN 1 + 2 = CAN GRMN SEQ A
GRMN 3 + 4 = CAN GRMN SEQ B
HIST 2A, World History to 1500 = CAN HIST 14
HIST 2B, World History: 1500 to Present = CAN HIST 16
HIST 4A, Survey of Western Civilization to 1648 = CAN HIST 2
HIST 4B, Survey of Western Civilization-1648 to Late 20th Century = CAN HIST 4
HIST 17A, United States History to 1865 = CAN HIST 8
HIST 17B, United States History since 1865 = CAN HIIST 10
HIST 2A + 2B World History = CAN HIST SEQ C
HIST 4A + 4B Western Civilization = CAN HIST SEQ A
HIST 17A + 17B United States History = CAN HIST SEQ B
HORT 2, Soil Science and Management = CAN AG 14
ITAL 1, Beginning Italian = CAN ITAL 2
ITAL 2, Elementary Italian = CAN ITAL 4
ITAL 1 + 2 = CAN ITAL SEQ A
JAPAN 1, Beginning Japanese = CAN JAPN 2
JAPAN 2, Elementary Japanese = CAN JAPN 4
JAPAN 1 + 2 = CAN JAPAN SEQ A
JOURN 21, Mass Communications = CAN JOUR 4
JOURN 23A, News Writing and Reporting = CAN JOUR 2
MATH 4, Precalculus and Trigonometry = CAN MATH 16
MATH 5A, Analytic Geometry and Calculus I = CAN MATH 18
MATH 5B, Analytic Geometry and Calculus II = CAN MATH 20
MATH 5C, Analytic Geometry and Calculus III = CAN MATH 22
MATH 6, Introduction to Linear Algebra = CAN MATH 26
MATH 7, Introduction to Differential Equations = CAN MATH 24
MATH 12, Elementary Statistics = CAN STAT 2
MATH 13, Finite Mathematics = CAN MATH 12
MATH 15, Number Systems = CAN MATH 4
MATH 18, Business Calculus = CAN MATH 34
MATH 23, Discrete Mathematics = CAN CSCI 26
MATH 5A + 5B = CAN MATH SEQ B
MATH 5A + 5B + 5C = CAN MATH SEQ C
PE 9, Introduction to Physical Education = CAN KINE/PE 2
PE 10, Introduction to Athletic Training = CAN KINE/PE 4
PE 12A, First Aid: Responding to Emergencies = CAN KINE/PE 8
PE 29, Water Safety Instructor = CAN KINE/PE 10
PHILO 4, Introduction to Philosophy = CAN PHIL 2
PHILO 6, History of Philosophy: Ancient and Medieval = CAN PHIL 8
PHILO 7, History of Philosophy: Modern = CAN PHIL 10
OCCUPATIONAL PROGRAMS

Cabrillo College offers programs that lead to Skills Certificates, Certificates of Proficiency or Specialization, and A.S. Degrees. These programs provide training for entry-level employment, as well as skill development. For a listing of Occupational Programs see page 52 of this Catalog. For further information please contact the individual department offering the program, the Career Planning Center, or the Counseling Division.

Skills Certificate

Skills Certificates are awarded to students who acquire a set of occupationally relevant skills through the completion of one or more courses (less than 18 units) as specified in the college Catalog.

Certificate of Proficiency or Specialization

Certificates of Proficiency or Specialization provide an opportunity to pursue a concentrated course of study (minimum of 18 units) in a particular occupational area. The courses required for individual programs are listed by program name on the following pages. A 2.0 grade point average is required in the area of concentration to receive a Certificate of Proficiency or Specialization. All certificates require completion of an English course selected from the General Education Area A1: Communication and Critical Thinking.

Associate in Science Degree

The Associate in Science programs usually consist of the core Certificate of Proficiency courses, 21 units of General Education requirements, plus suggested electives to total a minimum of 60 units. A 2.0 grade point average for all coursework is required to receive a degree.

COURSE CLASSIFICATION AND NUMBERING

1-99

Courses numbered 1 through 99 are baccalaureate level courses, carrying lower division transfer credit for the California State University (CSU) system. Courses in the 1 through 99 series meet the following criteria:

1. The course is parallel to one offered at a California State University;
2. The course has procedural rigor and treats subject matter at university level.

Note: The University of California follows the UC Transfer Course Agreement with Cabrillo College, located in the ASSIST database (www.assist.org), when determining the transferability of Cabrillo College courses to the UC system. UC approved courses are selected from courses in the 1 through 99 series. Cabrillo College indicates the transfer status of each course in both the Catalog and Schedule of Classes.

100-199

Courses numbered 100 through 199 are intended as associate degree level courses, some of which may transfer to four-year schools in certain occupational curricula. Consult a counselor or the four-year university to determine which courses transfer to four-year schools.

200-299

Courses numbered 200 through 299 are nontransferable, and are not intended as associate degree level courses. These courses will not count in calculating the GPA for the associate degree.

500-599

Courses numbered 500 through 600 are non-credit courses, are nontransferable, and are not recorded on a transcript.

POLICY STATEMENT–HEALTH OCCUPATIONS

Cabrillo College is committed to achieving equal educational opportunity and full participation for persons with disabilities. It is Cabrillo's policy that no qualified person be excluded from participating in or applying for any college program or activity. Reasonable accommodations will be provided for students with learning, psychological, or physical disabilities. College program selection committees will not make medical determinations regarding whether or not the applicant is disabled. Clear instructions for documentation of disabilities will be distributed to applicants or referrals of the applicant will be made to the Disabled Student Program and Services Office. This policy derives from the College's commitment to nondiscrimination for all persons in employment, access to facilities, and students' programs, activities, and services.
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<td>Women's Studies</td>
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</table>
Come study with us for an education that will work for you!

Our programs work! A spring 2006 study showed that those who completed a Cabrillo certificate or degree in 2004-2005 school year earned an average of $44,867 per year after completing school.

Program information can be found in this Catalog under the program name and on our website, http://www.cabrillo.edu then click on “Majors, Degrees and Certificates.”

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<thead>
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<th>Archaeological Technology</th>
<th>Computer Aided Drafting &amp; Design</th>
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<tr>
<td>Laboratory and Archival Researcher Technician</td>
<td>CAD Operator CAD/CAM Technician</td>
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<td>Archaeological Technician</td>
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<th>Computer Animation</th>
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<td>see Engineering Technology department</td>
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<tr>
<td>Building Inspector Public Works Inspector</td>
<td>Animation Artist 3-D Designer/Draftsperson Computer Animation Tech</td>
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<td>Solid Modeler</td>
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<td>Administrative Assistant Customer Service Office Administration</td>
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<td>Technical Support Specialist A+ Certification Hardware and Software Support</td>
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<table>
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<td>Computer Programming: C++, Java, Perl Computer Engineering</td>
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<td>Computer Science Software Engineering Game Programming</td>
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<table>
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<th>Horticulture</th>
<th>Computer Networking and System Administration</th>
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<tr>
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<tr>
<td>Greenhouse Grower Landscape Designer Arborist Landscape Contractor</td>
<td>Network Administrator Network Technician System Administrator</td>
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<td>Cut Flower Grower Horticultural Consultant Restoration Specialist</td>
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<td>Pesticide Applicator</td>
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<th>Digital Publishing</th>
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<tbody>
<tr>
<td>Counselor Mental Health Technician Advocate Social Work Assistant</td>
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<tr>
<td>Community Outreach Worker Case Management Aide Residential Counselor Probation Officer Eligibility and Outreach Worker Gerontology Aide Drug and Alcohol Counselor</td>
<td>Digital Publishing Page Layout Illustrator Graphic Designer</td>
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<td>Digital Photographer</td>
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<th>eCommerce</th>
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<tbody>
<tr>
<td>Reporter Writer Editor Digital Photography Photo Journalist Page Design and Layout Prepress Publication TV News Correspondent/Anchor Camera Operator Multimedia Editor and Web Designer Radio Correspondent</td>
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<td>eCommerce Site Designer and Producer</td>
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<tr>
<th>Welding</th>
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<tr>
<td>AWS–SCWI Senior Certified Welding Inspector AWS–CWE Certified Welding Educator</td>
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<td>Engineering Technician Drafting and Design Tech Manufacturing Tech</td>
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<table>
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<th>Digital Imaging</th>
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<td>Accounting/Finance see Accounting department</td>
<td>see Digital Media department</td>
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<tr>
<td>Bookkeeping Auditing Tax/Payroll Accounting General Office Self Employment</td>
<td>Digital Illustrator Digital Photo Editor</td>
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<td>Administrative Support see Computer Applications/Business Technology Department</td>
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<td>Office Assistant Receptionist General Office</td>
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<td>Animation see Digital Media department</td>
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<td>Advertising Web Design</td>
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<td>Manufacturing Specialist see Engineering Technology department</td>
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<td>Print Media see Digital Media department</td>
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<td>Graphic Production Artist Graphic Designer</td>
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<td>Real Estate see Real Estate department</td>
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<td>Sales Person Appraisal Property Management Mortgage Company</td>
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<td>Screen Media see Digital Media department</td>
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<td>Interactive Media Designer Motion Graphics Designer Motion Media Producer</td>
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<td>Web Design see Digital Media department</td>
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<tr>
<td>Web Designer Web Production Artist Information Architect</td>
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### Web Development
see Digital Media department
HTML Coder, Website Developer

### Web Media
see Digital Media department
Web Designer, Web Producer, 2D Animator, Multimedia Producer, Game Designer

### Web Production
see Digital Media department
Web Production Artist, HTML Coder

### Web Publishing
see Digital Media department
Web Programmer, Website Producer

### HEALTH OCCUPATIONS

**Associate Degree Nursing (RN)**
see Nursing department
Registered Nurse

**Dental Hygiene (RDH)**
see Dental Hygiene department
Dental Hygienist

**EKG Technician**
see Medical Assistant department
Clinical or Hospital Setting

**Fluoroscopy**
see Radiologic Technology department
Fluoroscopist

**Magnetic Resonance Imaging**
see Radiologic Technology department
Magnetic Resonance Imaging Technologist

**Mammography**
see Radiologic Technology department
Mammography Technologist

**Medical Administrative Assistant**
see Medical Assistant department
Medical Biller, Medical Office Manager, Medical Assistant, Accounts Receivable Manager, Medical Accounting, Patient Services Representative, Collections Representative

**Medical Assistant**
see Medical Assistant department
Unit Coordinator, Medical Records, Medical Assistant, Clinical Medical Assistant, Patient Service Representative

**Medical Insurance Specialist**
see Medical Assistant department
Billing, Claims Processor, Claims Auditing, CPT Coding

**Medical Receptionist**
see Medical Assistant department
Clinic, office or hospital based receptionist

**Phlebotomy Technician**
see Medical Assistant department
Clinical or Hospital Setting

**Radiologic Technology**
see Radiologic Technology department
Radiologic Technologist

### PUBLIC SAFETY

**Criminal Justice**
see Criminal Justice department
Law Enforcement Officer, Community Service Officer

**Emergency Medical Technician (EMT)**
see Fire Technology department
EMT Certification, EMT Recertification

**Fire Technology**
see Fire Technology department
Fire Fighter, Fire Prevention

**Fire Service Management**
see Fire Technology department
Fire Service Management
ACCOUNTING/FINANCE

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Program Coordinator, Mo Hassan, (831) 477-3201
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Accounting/Finance Occupational Program

Accounting/Finance
The Accounting program is designed to provide students with the skills and knowledge required for entry-level positions in accounting, industry, government, financial institutions, and small business. The program encompasses classroom instruction and extensive hands-on application with both manual and computerized accounting systems. Cabrillo College offers a Skills Certificate in Bookkeeping, a Certificate of Proficiency in Accounting, and an Associate in Science Degree in Accounting.

Accounting Career Opportunities
Accounting graduates set up accounting systems that allow businesses or individuals to organize, maintain, and audit financial records. In their work, accountants may be involved in preparing tax returns, budgets, and financial statements, recording business transactions, advising businesses on accounting systems, or auditing financial records. Employment opportunities in accounting are plentiful, and are expected to continue to grow in the foreseeable future.

Core Courses-Level I

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ACCT 151A</td>
<td>Introduction to Accounting: Bookkeeping Concepts</td>
<td>4</td>
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<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
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<td>*BUS 155</td>
<td>Business Math</td>
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<td>CABT 110A/B</td>
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<td>CABT 102</td>
<td>10-Key Calculator</td>
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*Students with skills equivalent to MATH 154 or higher are exempt from BUS 155.

Core Courses-Level II

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<td>ACCT 6</td>
<td>Spreadsheets for Accounting</td>
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<tr>
<td>ACCT 159</td>
<td>Computer Accounting</td>
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<td>ACCT 163</td>
<td>Using Quickbooks</td>
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Approved Electives

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<td>ACCT 1B</td>
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<tr>
<td>ACCT 154</td>
<td>Income Tax Accounting</td>
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<td>ACCT 155</td>
<td>Payroll Accounting</td>
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<td>ACCT 158</td>
<td>Introduction to NonProfit and Government Accounting</td>
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<td>ACCT 199C</td>
<td>Career Work Experience Education</td>
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<td>BUS 9</td>
<td>Business Statistics</td>
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<td>BUS 18</td>
<td>Business Law</td>
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<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
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<td>BUS 163</td>
<td>Global Business Management</td>
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<td>FIN 4</td>
<td>Money Management</td>
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<td>FIN 10</td>
<td>Introduction to Investments</td>
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Skills Certificate in Bookkeeping

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<td>ENGL 100 or ENGL 1A/1AMC or CABT 157</td>
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Certificate of Proficiency in Accounting

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<td>Accounting Core Courses Level I, II</td>
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Associate in Science Degree in Accounting

Accounting Core Courses Level I, II ........................................... 21-24
ACCT 1A Financial Accounting ............................................... 4
General Education ................................................................. 21
Approved Electives ............................................................... 3
Electives .............................................................................. 8-11
Total for A.S. Degree in Accounting ..................................... 60

Certificate of Proficiency in Financial Services is currently pending, awaiting approval by the California Community College’s Chancellor’s office. Please check www.cabrillo.edu for approval and availability of this program.

Accounting Courses

ACCT 1A
Financial Accounting
4 units; 4 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; ACCT 151A.
Teaches accounting concepts from the user’s perspective. Covers the preparation, communication, use and analysis of accounting information. Emphasis on accounting theory, critical thinking, and the use of accounting information in business decision-making. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN BUS2.

ACCT 1B
Managerial Accounting
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: ACCT 1A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the selection, use, and analysis of accounting information by managers. Covers cost accounting for manufacturing organizations, decision-making based upon accounting information, the evaluation of business segments, cost-volume-profit analysis, responsibility accounting, standard cost systems, and variance analysis. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN BUS4.

ACCT 6
Spreadsheets for Accounting
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: ACCT 151A or ACCT 1A.
Recommended Preparation: BUS 5 or CABT 41; Eligibility for ENGL 100 and READ 100.
Covers the creation, evaluation, and use of electronic spreadsheets in the accounting profession to present interest, depreciation, uncollectible accounts, financial analysis, and departmental activities. Includes spreadsheet design and management, formulas, functions, and charts. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

ACCT 151A
Introduction to Accounting: Bookkeeping Concepts
4 units; 4 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers practical accounting, terminology, and the complete accounting cycle from documentation through journals, ledgers, and financial statements for both service and merchandising companies. Designed for careers in the field of accounting as well as business owners who wish to prepare their own accounting records. May be offered in a Distance-Learning Format.

ACCT 154
Income Taxation
4 units; 4 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches Federal and CA income tax concepts, planning, and preparation for individuals and businesses; qualifies for CA Tax Preparer Certification. Introduction to computer software used to prepare income tax returns.

ACCT 155
Payroll Accounting
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introducing payroll accounting. Includes payroll calculations and Federal and California payroll tax requirements for withholding and reporting. Also covers labor laws, the importance of internal control, retirement plans, and workers’ compensation programs. May be offered in a Distance-Learning Format.

ACCT 158
Introduction to Government and Not-for-Profit Accounting
3 units; 3 hours Lecture
Prerequisite: ACCT 1A or ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores the similarities and differences between government/not-for-profit and commercial accounting, including applicable generally accepted accounting principles (GAAP), budgeting and fund accounting.

ACCT 159
Computer Accounting
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces computer accounting, from data analysis and entry, through generation, interpretation and comparison of end-of-period financial statements using Peachtree Accounting software. Includes inventory valuation, cash flow statement, financial analysis, as well as accounting for a partnership, corporation, and manufacturer. May be offered in a Distance-Learning Format.
ACCT 163
Using Quickbooks
3 units; 2 hours Lecture, 5 hours Laboratory
Recommended Preparation: ACCT 151A; Eligibility for ENGL 100 and READ 100.
Introduces use of QuickBooks from the accounting practitioner’s perspective. Course includes setting up new businesses, entering data, locating information, and analyzing financial statements for service, merchandising, and manufacturing companies. May be offered in a Distance-Learning Format.

Finance Courses

FIN 4
Money Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100 and BUS 155.
For individuals who need to learn how to assess and plan their financial future. The course will introduce and familiarize students with such topics as financial planning, budgeting, taxes, real estate, credit, insurance, investments (stocks, bonds, and mutual funds) and retirement planning. The course will outline various methods to establish and live a more secure financial life.
Transfer Credit: Transfers to CSU.

FIN 10
Introduction to Investments
3 units; 3 hours Lecture, 1 hour Laboratory
 Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A survey of investment management and investment alternatives with particular emphasis on the equity markets. An analysis of investment goals, the relationship of risk to rewards, internal and external factors affecting market prices, choosing among investment alternatives, and the time value of money. This course involves the use of computers and Internet-based research.
Transfer Credit: Transfers to CSU.

FIN 110
Small Business Finance
3 units; 3 hours Lecture
An Introduction to financial management for the manager, investor, and small business owner. Covers financial planning for the business, budgeting, financial statement, and performance analysis.

FIN 160
Principles of Bank Operations
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
This class is an introduction to money, investments, credit and lending and banking activity. Focus is placed on the role of banking in the economy and other financial firms, insurance, stock brokerage and mortgage banking.

FIN 161
Introduction of Finance
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
This course surveys the fundamentals of the financial system and money. Topics include business enterprises, money, investments, banking, loans, business planning and basic computer accounting and financial decision-making.

FIN 162
Introduction to Financial Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
This class is an introduction to the areas related to the financial management of the business firm. Topics include money, cash management, basic investment models, creating partnerships, business loan requests, and management techniques.

ADAPTIVE PHYSICAL EDUCATION
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Michel Witzig, Program Chair, (831) 479-6576
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Adaptive Physical Education Courses

ADAPT 90
Adaptive Swimming
½–2 units; 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
For physically limited students. Includes basic swimming strokes and watermanship skills, with adaptation necessary to circumvent physical disability. Aides are available in the pool; a built in ramp and a water chair are available at poolside.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.
ADAPT 91
Adaptive Bowling
½–2 units; 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Techniques of bowling, with a variety of adaptations to circumvent disabilites. Class held off campus.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit-4 units.

ADAPT 92
Wheelchair Basketball
½–2 units; 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Improvement of physical conditioning and basketball skills for competitive wheelchair athletes.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit-4 units.

ADAPT 93
Exercise and Fitness-Adaptive
½–2 units; 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
For physically limited students. A variety of special equipment designed to increase strength, endurance, flexibility, cardiovascular conditioning is available. Instructor and student develop a program to meet student’s unique needs.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit-4 units.

ADAPT 94
Adaptive Tennis
½–1½ units; 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times, thereafter may be audited.
For physically challenged and/or developmentally delayed learners. Skill development in basic strokes, including strategy sessions in singles and doubles play.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit-4 units.

Aeronautics Courses
AERO 1
Basic Aeronautics
3 units; 3 hours Lecture
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Covers the preparation for the FAA Private Pilot-Airplane written examination, including fundamentals of flight, aircraft systems, performance, meteorology, airspace, air traffic control, federal aviation regulations, navigation and flight planning.
Transfer Credit: Transfers to CSU.

AERO 2
Instrument Aeronautics
3 units; 3 hours Lecture
Prerequisite: AERO 1 or equivalent.
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Covers the preparation for the FAA Instrument Pilot-Airplane written examination, including flight instrument systems, performance, airspace, air traffic control, meteorology, instrument charts, approach procedures, radio navigation and flight planning.
Transfer Credit: Transfers to CSU.

AERO 3
Advanced Aeronautics
3 units; 3 hours Lecture
Prerequisite: AERO 1 or private pilot license.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A course designed to acquaint potential commercial pilots with advanced topics in aerodynamics, aircraft systems and performance, meteorology, radio navigation, federal aviation regulations and high performance aircraft operation. A discussion of the fundamentals of instruction and the analysis and performance of flight maneuvers will be included. Prepares the student for the FAA commercial and commercial flight instructor written examinations.
Transfer Credit: Transfers to CSU.

ALLIED HEALTH
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs
**Ally Health Courses**

**ALH 101**  
A Review of Anatomy and Physiology  
2 hours Distance Ed, delayed interaction  
Prerequisites: BIO 4 and BIO 5.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Reviews the principles of human anatomy and physiology for those students awaiting admission to an allied health profession and for those health professionals who desire to review the subject matter. Credit/No Credit only. Portions of this course will be offered in a Distance-Learning Format.

**ALH 200A–Z**  
Special Topics in Allied Health  
1 unit; 1 hour Lecture  
Recommended Preparation: Can be specified with each individual course.  
Repeatability: May be taken 1 time per topic.  
Special topics courses designed to prepare students for success in Allied Health Programs and their prerequisites.

**American Studies**  
Human Arts and Social Sciences Division  
Nancy A. Brown, Division Dean  
Division Office, Room 420  
Michael Mangin, Program Chair, (831) 479-6227  
Counselor: (831) 479-6385 or (831) 479-6225 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6297 or (831) 479-6348 for more information  
http://www.cabrillo.edu/programs

**Information for American Studies Majors**  
The program listed below is a pattern of courses leading to an Associate in Arts Degree only and does not meet the transfer requirements for the American Studies major. Students planning to transfer should consult the catalog of the university to which they intend to transfer and see a counselor.  
The American Studies Program offers an examination of the basic institutions and fundamental trends in United States culture. The aim is to address the pressing questions of our time with a broad understanding of the institutions and trends.  
An American Studies Program is available at many UCs and CSUs. Usually, students need to take an introductory course when they transfer to the campus of their choice. American Studies is an interdisciplinary program that in most cases does not require specific lower division preparation.

**Model Program for American Studies**  
The following model program fulfills requirements for the A.A. Degree in American Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

**Choose seven courses from the following:**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>GEOG 4</td>
<td>World Regional Geography</td>
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<tr>
<td>HIST 17A</td>
<td>United States History to 1865</td>
</tr>
<tr>
<td>HIST 17B</td>
<td>United States History since 1865</td>
</tr>
<tr>
<td>HIST 18A</td>
<td>Asian American History: Chinese, Japanese, and Korean Americans</td>
</tr>
<tr>
<td>HIST 18B</td>
<td>Asian American History: Filipino, Asian Indian, and Southeast Asian Americans</td>
</tr>
<tr>
<td>HIST 29A</td>
<td>African American History to 1865</td>
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<td>JOURN 21</td>
<td>Mass Communications</td>
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<td>PS 1</td>
<td>Introduction to Government</td>
</tr>
<tr>
<td>WS 10</td>
<td>Introduction to Women’s Studies</td>
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</table>

**Associate in Arts Degree in American Studies**  
General Education .................................................. 30  
American Studies Core Courses ................................. 21  
Other Electives .................................................... 9  
Total for A.A. Degree in American Studies ............... 60

**Anthropology**  
Human Arts and Social Sciences Division  
Nancy A. Brown, Division Dean  
Division Office, Room 420  
Chuck Smith, Program Chair, (831) 477-5211  
Counselor: (831) 479-6385 or (831) 479-6225 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6297 or (831) 479-6348 for more information  
http://www.cabrillo.edu/programs  
(For Archaeology courses, see "Archaeological Technology")

**Information for Anthropology Majors**  
Anthropology is a multidisciplinary and yet holistic way to study all aspects of humanity, from biological origins to ways of social behavior, past and present. Anthropology presents to the student a world view that is personally enriching as well as practical. An A.A. or B.A. can lead to entry level jobs in archaeology, research, travel, and international trade and communication. (See Archaeological Technology for vocational certificate and A.S. Degree programs.) Graduate degrees allow one to assume positions as an anthropologist, archaeologist, instructor or professor, or positions in forensics, museums, international aid, or research.  
Career opportunities include archaeologist, museum director, teacher, health assistance occupations, tour leader, civil service in national parks, international aid officials, or college instructor. See the Career Center or talk to the anthropology faculty about such opportunities.
MODEL PROGRAM FOR ANTHROPOLOGY

The following model program fulfills requirements for the A.A. Degree in Anthropology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

### Core Courses

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<tr>
<td>ANTHR 2</td>
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<td>ANTHR 8</td>
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<tr>
<td>OR</td>
<td></td>
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<tr>
<td>ANTHR 13</td>
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### Approved Anthropology Electives for the A.A. Degree:

<table>
<thead>
<tr>
<th>Course</th>
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<td>ANTHR 6</td>
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<td>ANTHR 7</td>
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<td>ANTHR 8</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 13</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 17</td>
<td>3</td>
</tr>
</tbody>
</table>

Any course listed in Area D of the A.A. Degree requirements.

Prospective Anthropology majors are encouraged to consult an Anthropology instructor regarding recommended elective courses.

### Associate in Arts Degree in Anthropology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
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<tr>
<td>Anthropology Core Courses</td>
<td>14</td>
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<tr>
<td>Approved Electives</td>
<td>9</td>
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<tr>
<td>Other Electives</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total for A.A. Degree in Anthropology</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

### Anthropology Courses

**ANTHR 1**

**Introduction to Anthropology: Physical**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys the basic principles of physical anthropology with an emphasis on the mechanisms of biological evolution, genetics and inheritance, comparative primate behavior, human evolution, adaptability and variation, and the meaning of race.

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN ANTH2.*

**ANTHR 1L**

**Physical Anthropology Lab**

1 unit; 3 hours Laboratory

Prerequisite: ANTHR 1 or concurrent enrollment.

Presents a hands-on exploration of topics in physical anthropology. Areas investigated include human genetics, evolutionary forces, human osteology, forensic anthropology, comparative and functional skeletal anatomy, primate behavior, human fossil record, and modern human variation.

*Transfer Credit: Transfers to CSU. Transfers to UC.*

**ANTHR 2**

**Introduction to Anthropology: Cultural**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a cross-cultural, comparative study of contemporary human behavior with emphasis on the effects of globalization on contemporary cultures. Topics investigated include cultural patterns, language, subsistence, economics, religion, kinship, values and norms, sex and gender, marriage, cultural change, and migration. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN ANTH4*

**ANTHR 3**

**Introduction to Anthropology: Archaeology**

4 units; 4 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores “golden treasures” and stories of our past, looting versus ethics, archaeological methods and theories tied to hands-on recording of local Indian and historic sites. For advanced training in Archaeology, see Model Program in the Cabrillo catalog. (Offered as both ANTHR 3 and ARCHE 1. Student may enroll in either course for credit, but not both.)

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN ANTH6*

**ANTHR 6**

**Peoples and Cultures of Non-Western Tradition: California**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys the origins and history of the native peoples of California along with an in-depth examination of selected modern native cultures. Includes service learning connections with local Indian groups.

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN ANTH6*

**ANTHR 7**

**Peoples and Cultures of Non-Western Tradition: North America**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents, from an anthropological perspective, an ethnohistorical and ethnographic survey of the diverse American Indian societies and cultures north of Central Mexico. Also examines the history of Indian-European contact with a focus on its effects on both American Indian and Euro-American cultures through time. Contemporary issues such as exploitation of American Indian religious ceremonies, reburial of archaeological remains and land rights are examined using a multiplicity of voices reflecting American Indian and non-American Indian perspectives.

*Transfer Credit: Transfers to CSU. Transfers to UC.*
ANTHR 8
Anthropology of Religion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores and analyzes, from an anthropological perspective, religious traditions in diverse cultural contexts with particular focus on the effects of globalization on religious beliefs and practices. Topics investigated include mythology, magic, witchcraft, sorcery, revitalization movements, shamanism, ethnomedicine, ritual, and the ways in which religion relates to gender and ethnicity within the contemporary world.
Transfer Credit: Transfers to CSU. Transfers to UC.

ANTHR 13
Forensic Anthropology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the application of the science of physical anthropology to the medico-legal process with an emphasis on the identification of skeletal, badly decomposed, or otherwise unidentified human remains. Includes discussion of investigation of crime scenes, how the biological profile of an individual is determined from the skeleton, how skeletal trauma are evaluated, estimation of the interval since death, and how far these assessments can be supported. Case studies of documented individuals are used. While the practical aspects of this field will be the primary focus, attention will also be drawn to the incorporation of anthropological approaches to dealing with death and the handling of human remains.
Transfer Credit: Transfers to CSU.

ANTHR 17
Global Perspectives of Food and Culture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the social, cultural, and ecological aspects of food, food products, and food resources in a global, historical, and comparative perspective.
Transfer Credit: Transfers to CSU. Transfers to UC.

ANTHR 19A–Z
Selected Topics in Anthropology
1–3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times, for a maximum of 12 units. Course may be repeated with a different topic and a different letter without duplication of credit.
Explores selected topics in anthropology not covered by regular catalog offerings.
Transfer Credit: Transfers to CSU. Transfers to UC. Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

APPLIED LIVING ARTS
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room 301
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Applied Living Arts Courses

ALA 10
Beginning Clothing Construction
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: ALA 10 or equivalent skills. Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 4 times.
A beginning clothing construction course which includes the study of pattern selection, fabric selection and fitting, with emphasis on basic construction processes.
Transfer Credit: Transfers to CSU. CAN FCS 10.

ALA 11
Intermediate Clothing Construction
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: ALA 10 or equivalent skills. Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 4 times.
Designed for the student with some sewing experience. Course includes intermediate clothing construction techniques, pattern alteration, pattern construction, custom fitting and shaping of materials.
Transfer Credit: Transfers to CSU.

ALA 12
Advanced Clothing Construction/Tailoring
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: ALA 10 or 11 or equivalent skills. Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 4 times.
The study of advanced clothing techniques and tailoring, including the construction of a tailored jacket or coat.
Transfer Credit: Transfers to CSU.

ALA 13
Sewing With Special Fabrics
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: ALA 10 or 11 or equivalent skills. Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Experimentation with methods and techniques of construction using newly developed fabrics and shaping materials.
Transfer Credit: Transfers to CSU.
ALA 40
Introduction to Interior Design
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
An overview of interior design, with practical applications of color, lighting, furnishings, textiles, layout and building codes relating to home interiors.
Transfer Credit: Transfers to CSU.

ALA 41
Residential Interior Design
3 units; 3 hours Lecture
Prerequisite: ALA 40 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100.
Emphasizes planning and designing residential interior spaces. Projects will include studies of special spaces within the home and a complete home with scale drawings, color schemes and furnishings.
Transfer Credit: Transfers to CSU.

ALA 42
Commercial Interior Design
3 units; 3 hours Lecture
Prerequisite: ALA 40 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100.
Planning and design for interior spaces with emphasis on commercial projects. Projects will include space planning, including the use of flow diagrams and employee relationship charts for offices and public buildings.
Transfer Credit: Transfers to CSU.

ALA 44
Historic Furniture Styles
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
This course studies American and European furniture and interior design styles from antiquity to the present. Color slides will accompany the lecture.
Transfer Credit: Transfers to CSU.

ALA 150A–Z
Special Topics—Clothing and Textiles
1½–3 units; ½ hour Lecture OR 1 hour Laboratory
Prerequisite: ALA 10, 11 or equivalent experience. Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 4 times.
A course designed for study in selected areas of interest in clothing and textiles, such as special fabrics or the use of the computer in sewing. The special selected topic will be announced and described in the Schedule of Classes.

ARCHAEOLOGICAL TECHNOLOGY
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office-Room 420
Rob Edwards, Program Chair, (831) 479-6294
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6348 or (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Archaeological Technology
Occupational Program
The Archaeological Technology Program is designed to provide students with the basic skills and practical knowledge to work as archaeological technicians in archaeological site survey, excavation, laboratory procedures, and archival research. Students with Associate in Science degrees will also have a strong foundation to transfer to four-year programs in Cultural Resources Management, Archaeology, or Anthropology.

Graduates with the Certificate of Proficiency will be able to carry out a number of basic archaeological tasks under the general supervision of a professional archaeologist. Tasks fall under two general categories—each having its own Skills Certificate. 1) The Field Skills Certificate will require an Introductory Archaeology class (3 or 4 units) plus Field Survey (3 units) and Field Excavation (3 units) for a total of 9-10 units; 2) The Lab and Archival Certificate requires Laboratory, Regulations, and Archival Research and Management. This Skills Certificate will require ANTHR 3/ARCHE 1, ARCHE 3/Archives, ARCHE 5/Laboratory, and ARCHE 113A & B/Federal and State Regulations, for a total of 12-13 units. The person with a Certificate of Proficiency also will have a general understanding of the concepts of cultural Anthropology and Archaeology, and an introductory knowledge of the Native Cultures of California and/or North America, including recent history and current issues. Students will be introduced to relevant Federal and State laws and regulations. They will be able to keep systematic, descriptive field-notes of their work and write basic research reports.

Students who have completed the G.E. requirement courses can finish the vocational or “hands-on” coursework for the Certificate of Proficiency within one academic year.

The Archaeological Program has a long and active history at Cabrillo College. The Archaeological Technology Department has been the ongoing recipient of a number of local, state, and national grants. The program has an exceptional archaeological archive for the Central Coast area because the official State’s archives were located at the college from 1976 until 1982. Local files have been maintained and consistently updated. The Archaeological Program has been recognized by the Society for California Archaeology as an exemplary program for archeology and public education. Within the Cabrillo College Foundation, the Archaeological Program has a substantial endowment fund and has raised several thousand dollars per year for scholarships, equipment, and research.
### Career Opportunities

Students successfully completing the A.S. Degree program or certificate will be qualified for entry-level positions for private archaeological firms and for government agencies. Many archaeologists work for government agencies or private corporations in a profession required by federal, state, and local laws and regulations. Cultural Resources Management. California currently has over 100 employers who hire entry-level technological archaeologists. Many former Cabrillo College archaeology students work for local cultural resource management firms and various State and Federal agencies.

#### Required Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ANTHR 2 Introduction to Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>ARCHE 1/ANTHR3 Introduction to Anthropology: Archival Research and Archaeology</td>
<td>4</td>
</tr>
<tr>
<td>ARCHE 2* Archaeological Techniques: Survey</td>
<td>3</td>
</tr>
<tr>
<td>ARCHE 3* Archaeological Techniques: Archival Research and Data Management</td>
<td>3</td>
</tr>
<tr>
<td>ARCHE 4** Archaeological Techniques: Excavation</td>
<td>3</td>
</tr>
<tr>
<td>ARCHE 5** Archaeological Techniques: Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 6 Peoples and Cultures of Non-Western OR Tradition: California</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 7 Peoples and Cultures of Non-Western Tradition: North America</td>
<td>3</td>
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<tr>
<td>ARCHE 113A Planning for the Past: National Legislation and Requirements</td>
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<tr>
<td>ARCHE 113B Planning for the Past: California Legislation and Requirements</td>
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</tr>
<tr>
<td>ARCHE 113C Planning for a Future In The Past</td>
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</tr>
<tr>
<td>CABT 131 Microsoft Word</td>
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Total 28

### Approved Electives

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<td>ENGR 1A Surveying</td>
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<td>ETECH 24 Introduction to AutoCAD</td>
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<tr>
<td>GEOG 1 Physical Geography</td>
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<tr>
<td>GEOG 5 California, A Geography</td>
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<tr>
<td>GEOL 10 Physical Geology</td>
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<tr>
<td>GEOL 20 California Geology</td>
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Total 28

### Certificate of Proficiency

Archaeological Technology Core Courses 28

### Associate in Science Degree in Archaeological Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1A Surveying</td>
<td>4</td>
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<tr>
<td>ENL 1A/1AMC</td>
<td>3</td>
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Total for Certificate of Proficiency 31

### Skills Certificate in Laboratory and Archival Research

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ARCHE 1/ANTHR3 Introduction to Anthropology: Archaeology</td>
<td>4</td>
</tr>
<tr>
<td>ARCHE 3* Archaeological Techniques: Archival Research and Data Management</td>
<td>3</td>
</tr>
<tr>
<td>ARCHE 5* Archaeological Techniques: Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ARCHE 113A Planning for the Past: National Legislation and Requirements</td>
<td>1</td>
</tr>
<tr>
<td>ARCHE 113B Planning for the Past: California Legislation and Requirements</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 12

* These courses have a prerequisite of ARCHE 1/ANTHR 3.
** These courses have a prerequisite of ARCHE 1/ANTHR 3 and when taken together have been accepted as transferable to UCSC.

### Archaeological Technology Courses

#### ARCHE 1

**Introduction to Anthropology: Archaeology**

4 units; 4 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores "golden treasures" and stories of our past, looting vs. ethics, archaeological methods and theories tied to hands-on recording of local Indian and historic sites. For advanced training in Archaeology see Model Program in the Cabrillo catalog. (Offered as both ANTHR 3 and ARCHE 1. Student may enroll in either course for credit but not both.)

Transfer Credit: Transfers to CSU. Transfers to UC. CAN ANTH6.

#### ARCHE 2

**Archaeological Techniques: Survey**

3 units; 1 hour Lecture OR 6 hours Laboratory

Prerequisite: ANTHR 3/ARCHE 1 or equivalent experience.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 2 times.

Present methods of survey, field recording, and analysis of archaeological data. Includes theory and methods of archaeological processes, also includes recognition and recordation of historic and prehistoric sites on the Central Coast of California. Emphasis on appropriate levels of notetaking of field activities.

Transfer Credit: Transfers to CSU. Transfers to UC with conditions: ARCHE 2 & 4 combined, maximum credit–6 units. No credit for 2 or 4 if ANTHR 3 has not been taken. May be taken concurrently.

#### ARCHE 3

**Archaeological Techniques: Archival Research and Data Management**

3 units; 1 hour Lecture OR 6 hours Laboratory

Prerequisite: ANTHR 3/ARCHE 1 or equivalent experience. Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 2 times.

Focuses on understanding and utilizing historical archives and data for purposes of archaeological research.

Transfer Credit: Transfers to CSU.
ARCHE 4
Archaeological Techniques: Excavation
3 units; 1 hour Lecture OR 6 hours Laboratory
Prerequisite: ANTHR 3/ARCHE 1 or equivalent experience, ARCHE 2.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Lecture and supervised experience in field excavation of selected local historic or prehistoric sites. Includes theory and methods of archaeological processes, including stratigraphy, sampling, record-keeping, note-taking, profiles and mapping.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: ARCHE 2 & 4 combined: maximum credit—6 units. No credit for 2 or 4 if ANTHR 3 has not been taken. May be taken concurrently.

ARCHE 5
Archaeological Techniques: Laboratory
3 units; 1 hour Lecture OR 6 hours Laboratory
Prerequisite: ANTHR 3/ARCHE 1 or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Lecture and supervised experience in laboratory processing of excavated material from selected historic or prehistoric sites. Includes theory and methods of archaeological processes.
Transfer Credit: Transfers to CSU.

ARCHE 113C
Planning for a Future in the Past
1 unit; 1 hour Lecture
Prerequisite: ANTHR 3 / ARCHE 1.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Focuses on preparing for employment with federal and state agencies, consultants, and other entry level employment in archaeology especially in California.

ARCHE 126
Intro to ArcGIS, Desktop Geographic Information Systems
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Experience with Windows Software highly recommended.
An introduction to Geographic Information Systems (GIS) using the Windows based desktop GIS ArcGIS, providing value to anyone working or studying in a field where spatial visualization of data is useful. Applications include urban planning, public health, architecture, archaeology, etc. Experience with Windows Software highly recommended. This class is appropriate for students who previously completed the Intro to ArcView (ARCHE 124) course.

ART HISTORY
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room 301
Jamie Abbott, Program Chair, (831) 479-6236
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Transfer Credit in Art History
All Cabrillo College art history courses are given 3 units of Transfer Credit. There are no limits in Transfer Credit when students complete one course of art history. Limits apply after completing one course in Western art. AH 11, AH 12, AH 13, AH 14 are courses in Western art for all students, and especially, for those who transfer to a UC campus. AH 20A and AH 20B are courses in Western art for all students, especially for those who transfer to a CSU campus. After completing one of these courses, students who enroll in a second course should follow the information listed under the specific courses below. Because UC and CSU may differ in transfer requirements, be sure to see a counselor about which courses are required for your transfer institution.
Information for Art History Majors

The Art History Program offers a course of study for students to learn the subject of art history and how it relates to the study of works of art. Students enrolled in art history courses learn about the subjects, forms, and purposes of art within each historical period that they study. They learn about the artists, the patrons, and the audiences who viewed the works of art. Students learn to accurately identify and describe works of art, as well as to use the principles of art history in their critical writing about art. They also learn about related approaches of visual analysis which reflect changes in the discipline of art history, and which become an additional basis to critical thinking and writing about art. Learning experiences in art history are presented through illustrated lectures, discussions, readings, films, video and slide viewing, gallery exhibit activities, and art museum visits.

Career opportunities include: art history teacher, art slide librarian, art critic, art history researcher/author, art conservator, art appraiser, art therapist, gallery director, museum curator, and arts administrator. All art history courses are transferable to UC and CSU systems, and most meet the general education requirements in humanities and fine arts.

The student with a transferable Associate in Arts Degree in Art History is prepared for upper-division work in the major at four-year institutions. The major is available at UC and CSU systems, and at other colleges and universities.

MODEL PROGRAM FOR ART HISTORY

The following model program fulfills requirements for the A.A. Degree in Art History at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a Counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Art History Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 11</td>
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<tr>
<td>AH 12</td>
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<tr>
<td>AH 13</td>
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<td>AH 14</td>
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<td>OR</td>
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<tr>
<td>AH 20A</td>
<td>3</td>
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<tr>
<td>AH 20B</td>
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<table>
<thead>
<tr>
<th>Multicultural Art History Courses</th>
<th>6 units</th>
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</thead>
<tbody>
<tr>
<td>AH 16</td>
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</tr>
<tr>
<td>AH 17</td>
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<tr>
<td>AH 18</td>
<td>3</td>
</tr>
<tr>
<td>AH 19</td>
<td>3</td>
</tr>
<tr>
<td>AH 52</td>
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<table>
<thead>
<tr>
<th>Studio Courses</th>
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<tbody>
<tr>
<td>ART 2A</td>
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</tr>
<tr>
<td>ART 4</td>
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<td>ART 5</td>
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<table>
<thead>
<tr>
<th>Art History Electives</th>
<th>3 units</th>
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<tbody>
<tr>
<td>AH 10</td>
<td>3</td>
</tr>
<tr>
<td>AH 53</td>
<td>3</td>
</tr>
<tr>
<td>AH 77</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommended from Related Disciplines:
Four semesters of French or German; Survey of Western Civilization (HIST 4AB), Contemporary Trends in Photography (AP 45), and one multicultural course in history.

A.A. Degree in Art History

<table>
<thead>
<tr>
<th>General Education</th>
<th>30</th>
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<tbody>
<tr>
<td>Art History Core Courses</td>
<td>6-12</td>
</tr>
<tr>
<td>Multicultural Art History Courses</td>
<td>6</td>
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<tr>
<td>Approved Studio Art Courses</td>
<td>6</td>
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<tr>
<td>Approved Art History Electives or Other Art History Courses</td>
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</tr>
<tr>
<td>Electives</td>
<td>3</td>
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</tbody>
</table>

Total for A.A. Degree in Art History  60

Art History Courses

AH 10
Appreciation/Introduction to the Visual Arts
3 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the forms, processes and styles of the visual arts in on campus and Distance-Learning Formats.
Transfer Credit: Transfers to CSU. Transfers to UC.

AH 11
Ancient Art
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Art of Ancient Near East, Egypt, Crete, Greece, and Rome is studied through art historical analysis and related approaches to viewing art and images. Prehistoric art is studied.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Students who enroll in AH 11 should not enroll or have credit in AH 20A. See “Transfer Credit in Art History” on page 66, for more detailed information on transfer of Art History courses.

AH 12
Middle Ages: Art/Mediterranean World & Europe (A.D. 300-1400)
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This is a foundation course to the study of European art (A.D. 300-1400). It studies the development of Christian art in the Mediterranean World and in Europe during the Early Medieval, Romanesque and Gothic eras. Islamic art is studied.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: students who enroll in AH 12 should not enroll or have credit in AH 20A. See “Transfer Credit in Art History” on page 63, for more detailed information on transfer of Art History courses.
AH 13  
**Renaissance to Mid-19th Century**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Art of the Renaissance in Europe, including the art of the Baroque, Rococo, and early Modern eras, is studied through art historical analysis and related approaches to viewing art and images.

**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: Students who enroll in AH 13 should not enroll or have credit in AH 20B. See “Transfer Credit in Art History” on page 63, for more detailed information on transfer of Art History courses.

AH 14  
**Modern Art**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

The art of Europe and the United States from the mid-19th century to the present is studied through historical analysis and related approaches to viewing art and images.

**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: Students who enroll in AH 14 should not enroll or have credit in AH 20B. See “Transfer Credit in Art History” on page 63, for more detailed information on transfer of Art History courses.

AH 16  
**Art of India and Southeast Asia**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100.

A survey of the history of the visual arts of India and Southeast Asia, including Tibet and Nepal, from ancient to modern times.

**Transfer Credit:** Transfers to CSU. Transfers to UC.

AH 17  
**Art of China, Korea and Japan**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A survey of the history of the visual arts of China, Korea and Japan from ancient to modern times.

**Transfer Credit:** Transfers to CSU. Transfers to UC.

AH 18  
**Art in America to 1900**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A survey of the native arts of the Eastern Mound Builders, Southwest Anasazi, Northwest Coast and Eskimo cultures is followed by a study of European art traditions in colonial United States and Canada.

**Transfer Credit:** Transfers to CSU. Transfers to UC.

AH 19  
**Art of the Americas**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A survey of the history of the visual arts created in Pre-Columbian cultures and in Latin America, especially Mexico.

**Transfer Credit:** Transfers to CSU. Transfers to UC.

AH 20A  
**Survey of Art from Prehistoric Through Medieval Periods**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys Prehistoric, Ancient, Classical, Early Christian, Islamic, and Medieval art. Includes a selection of representative art works from each period. Illustrated lectures. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: Students who enroll in AH 20A should not enroll or have credit in AH 11 or 12. See “Transfer Credit in Art History” on page 63, for more detailed information on transfer of Art History courses.

AH 20B  
**Survey of Art from the Renaissance to the Present**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys art of the Renaissance, Baroque, 19th and 20th centuries. Includes a selection of representative art works from each period. Illustrated lectures. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: Students who enroll in AH 20B should not enroll or have credit in AH 13 or 14. See “Transfer Credit in Art History” on page 63, for more detailed information on transfer of Art History courses.

AH 52  
**Latin American Art**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A survey of the visual arts of Mexico, Central and South America from colonial to contemporary times. Course includes topics in Chicano and Mexican American art.

**Transfer Credit:** Transfers to CSU. Transfers to UC.

AH 53  
**Contemporary Art and Visual Culture**
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents topics in contemporary art and introduces visual culture as a field of study. Artworks are presented in relation to contemporary themes and world-wide media. Variability of perception and interpretation is presented and discussed.

**Transfer Credit:** Transfers to CSU. Transfers to UC.

AH 77  
**Correlation of the Arts**
3 units; 3 hours Lecture, 1 hour Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies similarities and differences in the visual arts, music, and theatre arts. Topics in creativity, aesthetics, style, and historical context are presented from a variety of viewpoints. Students will be encouraged to develop an awareness, understanding, and respect for diverse cultures through lecture, performance, and demonstration.

**Transfer Credit:** Transfers to CSU. Transfers to UC.
ART PHOTOGRAPHY
Visual, Applied and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room 301
Susan Hoisington, Program Chair, (831) 479-6131
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Art Photography Courses

AP 9A
Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the basic principles, practice and aesthetics of black and white photography including camera operation, film processing and darkroom based printing, print presentation, composition and visual communication. Course includes lecture, demonstration, critique, darkroom laboratory work and field studies.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART18.

AP 9B
Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: AP 9A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Continues the application of the principles and practices of black and white photography from AP 9A with a focus on fiber base paper printing techniques, Zone System practices and thematic projects. Activities include lecture, demonstration, critique, darkroom laboratory work and field studies.
Transfer Credit: Transfers to CSU. Transfers to UC. For 3 units only.

AP 40A–Z
Studies in Photography
1–3 units; 67 hours Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Course may be repeated for credit if a different area is investigated.
Investigates special areas of interest in Photography. The special area (i.e. field studies, workshops in specific photographic techniques, etc.) will be announced and described in the Schedule of Classes.
Transfer Credit: Transfers to CSU. Transfers to UC. With conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon review of the course outline and other material by the UC transfer campus.

AP 42
Alternative Photographic Processes
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: AP 9B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Investigates creative photographic image making utilizing historical, contemporary, and non-traditional applications of silver-based and non-silver photographic processes, mixed media combinations and digital imaging techniques. Activities include lecture, demonstration, critique, laboratory work and field studies.
Transfer Credit: Transfers to CSU.

AP 43
Basic Color Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: AP 9B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces exposure and processing of color negative and transparency film, traditional lab printing techniques, print finishing and presentation, correlations between traditional and digital materials and processes, and the expressive use of color. Activities include lecture, demonstration, critique, lab work and field studies.
Transfer Credit: Transfers to CSU.

AP 45
Contemporary Trends in Photography
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
 Examines the images of contemporary photographers worldwide to illustrate the major themes and concepts in photography from 1945 to the present. Includes visual presentations of images, discussions and gallery field trips designed to enhance the student’s personal vision and promote creative visual thinking. No lab time required. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

AP 46A
Digital Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisites: AP 9A or AP 40ID or equivalent skills; and CS 1L or DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches tools and techniques for creating expressive photographic images with Adobe Photoshop including scanning, importing, manipulating, printing and digital output. Covers menus and tools, selection controls, retouching, global and selective image adjustments, filters & effects, compositing, and combining text and imagery. Taught on Macintosh. Adaptable to Windows. Students may use either film or digital cameras.
Transfer Credit: Transfers to CSU.
ART 46B
Digital Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 46A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Continues the study of digital photography from AP 46A with a focus on integrating aesthetic and design principles with imaging software possibilities to expand creative expression. Taught on Macintosh. Adaptable to Windows. Students may use either film or digital cameras.
Transfer Credit: Transfers to CSU.

AP 47
Studio Lighting for Photography
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: AP 9B or equivalent skills.
Recommended Preparation: AP 40MLF and Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces fine-art and commercial applications of studio lighting equipment and techniques, including portraiture, tabletop and still life photography, and medium and large format practices. Activities include lecture, demonstration, critique, lab work and field studies.
Transfer Credit: Transfers to CSU.

ART–STUDIO
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room 301
Jamie Abbott, Program Chair, (831) 479-6236
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Information for Art–Studio Majors
The Art–Studio Program offers beginning and intermediate courses that provide students with the knowledge and experience needed for a broad understanding of the visual arts. For beginning students, the curricula offer drawing and composition, two-dimensional and three-dimensional design, and art history. After completing the four core courses in studio art, students may then advance to intermediate courses and complete their major by concentrating their course work in one of the studio art discipline options. Students may also take a course designed to investigate special areas of interest in the visual arts by taking courses in ART 40 A-Z or AP 40 A-Z for photography.

Art gallery viewing is provided in the Cabrillo Art Gallery which presents exhibitions of original works by a range of artists during each academic year. The exhibitions are an integral part of the instructional program, and students participate regularly in gallery exhibit observations.

Career opportunities include: exhibiting artist, art teacher, graphic designer, artist/photographer, art illustrator, art technician, commercial artist, and other professions in creative endeavor. Career opportunities are also available in galleries, museums, and art organizations.

The student with a transferable Associate in Arts Degree in Art–Studio is prepared for upper division work in the major at four-year institutions. The major is available at UC and CSU systems, the San Francisco Art Institute, the College of Arts and Crafts, and at other colleges of art and schools of design.

MODEL PROGRAM FOR ART-STUDIO
The following model program fulfills requirements for the A.A. Degree in Art–Studio at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Art–Studio Core Courses
ART 2A Drawing and Composition ....................................... 3
ART 2B Drawing and Composition ....................................... 3
ART 4 Beginning Design: Design and Color ............................... 3
ART 5 Beginning Design: 3-Dimensional Form .............. 3

Art History Core Courses (6 units)
Since Art-Studio major preparation can vary at four-year campuses, see a counselor before deciding on Art History 1 or 2, or a different pattern, to the 6 unit requirement.

Art History Option 1
AH 20A Survey of Art from Prehistoric through Medieval Periods ........................................... 3
AH 20B Survey of Art from Renaissance to the Present ............... 3

Art History Option 2
AH 11 Ancient Art
OR
AH 12 Middle Ages: Art/Mediterranean World and Europe (A.D. 300-1400) .......................... 3
AH 13 Renaissance to Mid-19th Century
OR
AH 14 Modern Art ................................................................. 3

STUDIO ART OPTION
Select one option for completing 9 units of studio art emphasis:

Ceramics Option
ART 7A Ceramics-Hand Building ........................................... 3
ART 7B Ceramics-Wheel Forming ........................................... 3
ART 71 Intermediate Ceramic Processes .......................... 3

Fiber Arts Option
Choose three
ART 21 Textile Surface Design ........................................... 3
ART 23 Weaving ................................................................. 3
ART 24 Fiber Arts: Textiles, Fiber, Paper .................................. 3
ART 46 Artists’ Books ........................................................... 3

Drawing Option
ART 3A Life Drawing ............................................................ 3
ART 3B Life Drawing ............................................................ 3

(Select one)
ART 31A Painting ................................................................. 3
ART 37A Watercolor ............................................................... 3
Art Photography Option

AP 9A  Photography ........................................... 3
AP 9B  Photography ........................................... 3

(Select one)

AP 42  Alternative Photographic Processes ........... 3
AP 43  Basic Color Photography .......................... 3
AP 46A  Beginning Digital Photography ............... 3
AP 47  Studio Lighting for Photography ............... 3

Graphic Art Option

ART 3A  Life Drawing ........................................... 3
ART 27  Graphic Design ....................................... 3
ART 28  Lettering/Typography ............................... 3

Small Scale Metal/Jewelry Option

ART 8A  Small Scale Metal/Jewelry ........................ 3
ART 8B  Small Scale Metal/Jewelry ........................ 3
ART 38  Metalsmithing ......................................... 3

Painting Option

ART 31A  Painting .............................................. 3
ART 37A  Watercolor ........................................... 3

(Select one)

ART 31B  Painting .............................................. 3
ART 37B  Watercolor ........................................... 3

Printmaking Option

(Choose three)

ART 3A  Life Drawing ........................................... 3
ART 32  Printmaking: Etching and Intaglio ............ 3
ART 33  Screen Printing ....................................... 3
ART 45  Lithography ........................................... 3
ART 73  Intermediate Intaglio Prints .................... 3

Sculpture Option

ART 34A  Sculpture: Direct Processes .................... 3

(Select two)

ART 34B  Sculpture: Direct Processes .................... 3
ART 35  Sculpture: Casting .................................... 3
ART 36  Sculpture: Moldmaking ............................ 3

Woodworking Option

ART 25A  Woodworking/Furniture Design ................ 3
ART 25B  Intermediate Woodworking/Furniture Design 3
ART 34A  Sculpture: Direct Processes .................... 3

Associate in Arts Degree in Art–Studio

General Education ............................................. 30
Art–Studio Core Courses .................................... 12
Art–Studio Options ........................................... 9
Approved Art History Courses ............................. 6
Electives ......................................................... 3

Total for A.A. Degree in Art–Studio ........................... 60

Art–Studio Courses

ART 2A
Drawing and Composition
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches fundamentals of composition, and the development of drawing skills with various drawing media. Develops appreciation and perception by means of studio work, library references, slides, field trips and lectures.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART8.

ART 2B
Drawing and Composition
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Emphasizes the development of drawing skills derived from ART 2A and further explores various graphic media.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 3A
Life Drawing
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Students learn fundamentals of the drawing of the human figure. Emphasizes personal interpretation and form.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART24.

ART 3B
Life Drawing
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 3A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Continues development of fundamental skills of the representation of the human figure. Drawing from life. Emphasizes composition.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 4
Beginning Design: Design and Color
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Emphasizes the manipulation of a two-dimensional surface with the elements of art and use of color.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART14.
ART 5
Beginning Design: 3-Dimensional Form
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces design elements and principles as they apply to 3-dimen-
sional space and form; theory and practice. Includes projects in various
media: plaster, paper, wood, and metal. Fulfills one-half the year of
design requirement for all art majors. Prerequisite for courses in sculpture
and recommended for related 3-dimensional disciplines.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART16.

ART 7A
Ceramics–Hand Building
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: ART 5; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Provides beginning level instruction in clay processes covering hand-
building methods only, glazing, and firing procedures. Explores creative
design and technical problem-solving.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART6.

ART 7B
Ceramics–Wheel Forming
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 7A.
Recommended Preparation: ART 5, Eligibility for ENGL 100.
Repeatability: May be taken 2 times.
Provides beginning level instruction in clay processes covering wheel
throwing methods only, glazing, decorating, and firing procedures.
Explores creative design and technical problem-solving.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART6.

ART 8A
Small Scale Metal/Jewelry
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: ART 4 or 5; Eligibility for ENGL 100.
Repeatability: May be taken 2 times.
A basic course covering processes used in fabricating nonferrous
metals. No casting. Attention paid to design, use of tools, supply
sources, as well as development of technical skills.
Transfer Credit: Transfers to CSU. CAN ART26.

ART 8B
Small Scale Metal/Jewelry
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 8A.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 2 times.
Course involves expanded use of fabrication, may include introduction
to lost wax casting. Emphasis on individual solutions to posed problems.
Transfer Credit: Transfers to CSU.

ART 21
Textile Surface Design
1–3 units; 67 hours Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches the creation of wall pieces and fabric designs through trans-
foming, dyeing and manipulating fibers and fabrics. Includes textile dye-
ing, printing, painting, stitching, assembling and embellishing. Teaches
analysis of contemporary and historical art textiles.
Transfer Credit: Transfers to CSU.

ART 23
Weaving
1–3 units; 67 hours Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Explores the ancient techniques of tapestry weaving and fosters the
creation of personal projects. Teaches basics of off loom and loom weav-
ing as an art form and for making functional objects. Teaches construc-
tion of simple looms, spinning and dyeing. Surveys historical textiles and
their relationship to the present.
Transfer Credit: Transfers to CSU.

ART 24
Fiber Arts: Textile, Fiber, Paper
1–3 units; 67 hours Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 2 times.
Presents general topics in the fiber arts area such as paper making,
fabric dyeing, bookbinding, and related fiber arts. Emphasizes individual
design. Explores contemporary and historical fiber arts, their design and
processes.
Transfer Credit: Transfers to CSU.

ART 25A
Woodworking/Furniture Design
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: ART 2A, ART 5; Eligibility for ENGL 100 and
READ 100.
Repeatability: May be taken 2 times.
Introduces the practice and art of furniture making, including exploring
the characteristics of wood as a material and use of woodworking tools.
Emphasizes appropriate joinery techniques and designing of furniture
concepts.
Transfer Credit: Transfers to CSU.

ART 25B
Intermediate Woodworking/Furniture Design
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 25A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Builds on concepts, practices, and art of furniture making covered in
ART25A. Emphasizes explorations in mixed media and alternative mate-
rials in furniture making. Students will engage in more advanced design
concepts (ergonomics) and woodworking techniques.
Transfer Credit: Transfers to CSU.
ART 27
Graphic Design
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: DM 1 and ART 4; Eligibility for ENGL 100 and READ 100.
Teaches the basic skills and concepts of graphic design. Includes the process of the development of the idea to the production techniques using computer software. Discusses the history of traditional methods. Emphasizes both art form and communication.
Transfer Credit: Transfers to CSU.

ART 28
Lettering/Typography
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces lettering techniques and typographic designs and use. Covers both traditional methods and contemporary applications. Includes a study of calligraphy from its beginnings in Ancient Rome to modern commercial use, and typography from moveable metal type to digital computer information.
Transfer Credit: Transfers to CSU.

ART 31A
Painting
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisites: ART 2A and ART 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Studies the practice and theory of painting with emphasis on individuality in painting techniques. Explores experimental methods and process for visual expression.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART 10.

ART 31B
Painting
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 31A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Thereafter may be audited.
Continues the study of theory and practice of painting from ART 31A with emphasis on individual projects.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 32
Printmaking: Etching and Intaglio
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Thereafter, may be audited.
Teaches intaglio: the process of making multiple images of original designs or drawings on paper from etched metal plates.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART 20.

ART 33
Screen Printing
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Thereafter, may be audited.
Introduces techniques of silk screen printing including stenciling, printing, care of prints, papers and proper studio use.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 34A
Sculpture: Direct Processes
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 5 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Thereafter may be audited.
Continues the study of materials and processes from ART 34A with an increased use of a wide variety of materials, which can be sculpted through direct processes. Emphasizes the application of concepts and presentation.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ART 12.

ART 34B
Sculpture: Direct Processes
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 34A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Thereafter may be audited.
Continues the study of materials and processes from ART 34A with an increased use of a wide variety of materials, which can be sculpted through direct processes. Emphasizes the application of concepts and presentation.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 35
Sculpture: Casting
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 34A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Presents intermediate level bronze casting for sculptural purposes, utilizing lost wax method and rigid investments. Includes patination and presentation.
Transfer Credit: Transfers to CSU.

ART 36
Sculpture: Moldmaking
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 5 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces moldmaking with an emphasis on constructing armatures, bas-relief, waste, piece and flexible mold types using suitable materials in both positive and negative mode. Presentation of finished sculpture is included as part of the course.
Transfer Credit: Transfers to CSU. Transfers to UC.
ART 37A

Watercolor
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Presents painting with watercolor, using both transparent and gouache. Includes studio and outside landscapes, still life studies, abstract, and nonobjective problems.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 37B

Watercolor
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 37A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times. Thereafter, may be audited.

Continues content from ART 37A with emphasis on the landscape and on experimental and individual problems. Further explores watercolor, opaque water base media, polyvinyl and acrylic resins.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 38

Metalsmithing
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 8A or equivalent skills.
Repeatability: May be taken 2 times.

Explores direct processes such as raising, sinking, die forming and forging. Tool usage and design are important aspects of this class.
Transfer Credit: Transfers to CSU. This course transfers to UC if taken before F02.

ART 40A–Z

STUDIES IN STUDIO ART
1–3 units; .67 hour Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Individual courses may be taken a total of two times and course may repeated for credit if a different area is investigated.

Investigates special areas of interest in Visual Arts. The special area (i.e. drawing, painting, sculpture, etc.) will be announced and described in the Schedule of Classes.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

ART 45

Lithography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Introduces the making of multiple prints from original hand-drawn images on stone or metal plates using the lithography process.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 46

Artists’ Books
1–3 units; 67 hour Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Teaches construction of artists’ books. May include the following structures: folded, stab, sewn, sculptural, boxes and portfolios. Includes paste papers and marbled papers and use of transfers, collage, prints and mixed media.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 50L

Gallery Viewing Lab
½ unit; 1 hour Directed Study
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 4 times.

A required laboratory class designed to encourage students to develop skills in gallery art viewing and critical analysis, supplemented by video tape viewing and guest lectures.
Transfer Credit: Transfers to CSU.

ART 71

Intermediate Ceramics Process
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisites: ART 7A and ART 7B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Provides an opportunity to apply knowledge and experience in ceramics to personal expression. Special areas (methods/materials/ideas) will be covered. Emphasis on personal interpretation, design, craftsmanship and presentation. Critical assessment of projects required.
Transfer Credit: Transfers to CSU. Transfers to UC.

ART 73

Intermediate Intaglio Prints
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisites: ART 2A and ART 32A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Investigates etching and intaglio techniques in the creation of original fine art prints.
Transfer Credit: Transfers to CSU. Transfers to UC.

ASIAN STUDIES

Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information http://www.cabrillo.edu/programs
Information for Asian Studies Majors

Asian Studies is an interdisciplinary major which allows students to focus on a particular area of interest in Asian Studies while gaining an overall knowledge of the area. With increasing globalization, Asia’s political, economic, and social roles have become increasingly important to the world and to the United States. In the United States our knowledge of the area lags far behind our need for understanding. Not only is there a need for greater knowledge of the Asian in our contemporary world, but also a better acquaintance with the region’s century old traditions. These traditions give us a fresh perspective on the diversity and genius of human achievement and are indispensable keys to understanding modern China, Japan, and the entire Asian region. This major is will be particularly valuable to those who wish to pursue careers in International Business and/or International Politics. California, living on the Pacific Rim, makes knowledge of Asia an area imperative study for those who want to be successful in business and international relations.

Students studying Asian art, music and/or literature will also find this to be a valuable major for gaining the historical and political knowledge necessary to pursue their areas of interest. UC Berkeley, UCLA, UC Davis, and San Jose State University all offer programs in Asian Studies.

**MODEL PROGRAM FOR ASIAN STUDIES**

The following model program fulfill requirements for the A.A. Degree in Asian Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

**Core Courses**

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<th>Course</th>
<th>Units</th>
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Choose four courses from the following:

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<tr>
<th>Course</th>
<th>Units</th>
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<tr>
<td>AH 16</td>
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<td>ECON 1A</td>
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<td>HIST 19C</td>
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**Associate of Arts Degree in Asian Studies**

General Education ............................................. 30
Asian Studies Core Courses ................................ 8
Approved Electives ......................................... 12
Other Electives ............................................. 10
Total for A.A. Degree in Asian Studies .................. 60

Information for Astronomy Majors

The major in astronomy provides a study of the universe at large and the physical processes that govern it. Astronomy is the oldest science and uses many of the tools of modern technology. A B.S. Degree qualifies one to work at a planetarium, teach at the high school level, assist at an observatory, and work in positions requiring a general technical knowledge. An M.S. Degree broadens the opportunities to include community college instructor, major observatory telescope operator, some space science positions, and many more positions in technical fields.

A Ph.D. Degree qualifies one to do sponsored research, either theoretical or observational, at a major observatory or university. This advanced degree also opens up opportunities to work as an astronaut, space engineer, space scientist, and scientific computer programmer.

University level astronomy curricula generally stress very strong initial preparation in mathematics, physics and computer programming. Many recommend that those planning on an advanced degree obtain their B.S. in physics or mathematics. While most astronomy courses are taken at the upper division or graduate level, students will find lower division astronomy courses helpful in exploring the major. The terms “astronomy” and “astrophysics” are interchangeable. Transfer students must also complete the admission and general education requirements of the intended transfer institution.

High School Preparation: Four years of college preparatory mathematics and one year of physics. Cabrillo offers courses which can substitute for this preparation; however, the major will then require more than two years to complete.

**MODEL PROGRAM FOR ASTRONOMY**

The following model program fulfill requirements for the A.S. Degree in Astronomy at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

**Core Courses**

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<td>ASTRO 3</td>
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<td>ASTRO 4</td>
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<td>ASTRO 8A</td>
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<td>MATH 5ABC</td>
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<td>PHYS 4ABC</td>
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**Approved Electives**

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<th>Course</th>
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<tr>
<td>ASTRO 9A</td>
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<td>ASTRO 28</td>
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Recommended: 6 units from Related Disciplines
CHEM 1A  General Chemistry ............................ 5
CIS 90  Introduction to UNIX/Linux ............... 3
CS 19  C++ Programming ............................. 4
MATH 7  Introduction to Differential Equations .................... 3
MATH 12  Elementary Statistics ......................... 4

Associate in Science Degree in Astronomy
General Education ............................................. 21
Core Courses ..................................................... 34
Approved Electives .............................................. 2
Recommended from Related Disciplines .......... 3

Total for A.S. Degree in Astronomy ...................... 60

Astronomy Courses

ASTRO 3  
Solar System Astronomy  
3 units; 3 hours Lecture  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  

Presents a survey of the sun, planets, asteroids, comets, and the growing list of new solar systems around other stars for non-science majors. Additional topics include principles of scientific reasoning, applications to the structure and evolution of planetary systems, and methods astronomers use to discover and study other solar systems.  
Transfer Credit: Transfers to CSU. Transfers to UC.

ASTRO 4  
Stars, Galaxies, and the Origin of the Universe  
3 units; 3 hours Lecture  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  

Surveys the lives of stars and galaxies, and the relationship of life to the origin of universes, for non-science majors. Describes how astronomers use science to arrive at our current ideas on the evolution of stars and galaxies. Investigates how the nature of life relates to the origin of our universe and possible parallel universes. Includes optional star party at Cabrillo Observatory.  
Transfer Credit: Transfers to CSU. Transfers to UC.

ASTRO 8A  
Observational Astronomy  
1 unit; 1 hour Lecture, 2 hours Laboratory  
Prerequisite: ASTRO 10 or ASTRO 11 or concurrent enrollment; MATH 154.  

Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Presents lab projects at the observatory on variable stars, planets, the moon, and deep sky objects, and in-class quantitative labs and demos on cloudy nights. Sometimes offered as a field course involving camping at dark-sky locations.  
Transfer Credit: Transfers to CSU. Transfers to UC.

ASTRO 9A  
Astrophotography  
1 unit; 1 hour Lecture, 2 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Covers photographic theory and practice at Cabrillo Observatory using telescopes, cameras, and dark room to develop, print, and mount photographs taken both on film and digitally. Clear nights usually spent at Cabrillo Observatory, cloudy nights in the photo lab. Students choose from a variety of projects and experiments. Includes optional weekend camping trip for deep-sky work.  
Transfer Credit: Transfers to CSU.

ASTRO 9B  
Astrophotography  
1 unit; 1 hour Lecture, 2 hours Laboratory  
Prerequisite: ASTRO 9A  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Similar to ASTRO 9A, but includes more advanced projects as well as prime focus photography, advanced techniques, and opportunities for digital imaging and processing.  
Transfer Credit: Transfers to CSU.

ASTRO 9C  
Astrophotography  
1 unit; 1 hour Lecture, 2 hours Laboratory  
Prerequisite: ASTRO 9B  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Similar to ASTRO 9A and 9B but includes more creative and advanced projects: experimental testing, advanced composition, CCD imaging and digital processing. Includes weekend camping trip for dark-sky work.  
Transfer Credit: Transfers to CSU.

ASTRO 10  
Introduction to Astronomy  
3 units; 3 hours Lecture  
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.  

A comprehensive overview of modern astronomy for the nonscience major, stressing scientific method in discovering the nature of the universe. Not open to students with credit in ASTRO 11.  
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ASTRO 10 & 11 combined-maximum credit–1 course.

ASTRO 11  
Quantitative Introductory Astronomy  
3 units; 3 hours Lecture  
Prerequisite: MATH 152.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

A comprehensive survey of modern astronomy, stressing scientific thinking and quantitative problem solving. Similar to ASTRO 10, but includes algebraic homework problem sets. Satisfies quantitative reasoning requirement at UCSC. Not open to students with credit in ASTRO 10.  
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ASTRO 10 & 11 combined-maximum credit–1 course.
ASTRO 27
Field Astronomy at the Pinnacles
1 unit; 82 hours Lecture, ½ hour Laboratory
Corequisite: GEOL 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An intensive one weekend field lecture class in general astronomy, using direct visual and telescope observations in explaining planetary geology, solar system, star, and galaxy formation and evolution, and the origin of the universe. Held in conjunction with GEOL 27. Includes car-camping at Pinnacles National Monument.
Transfer Credit: Transfers to CSU.

ASTRO 28A-Z
Special Topics in Field Astronomy
1 unit; .82 hours Lecture, ½ hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Individual sections may be taken once.
A weekend field lecture/lab course of descriptive astronomy in dark sky locations in park lands and camping areas. Emphasis on direct observations to explore how the universe works. Car camping is required. Similar to ASTRO 27 but each section is designed around a unique astronomical event and/or location: e.g. meteor shower, lunar occultation, professional observatory tour, comet appearance.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE Activity courses combined: maximum credit–4 units.

ASTRO 30
Advanced Field Astronomy
2 units; 1.65 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents an in-depth field course including evening observing projects, daytime geology excursions, and campfire lectures conducted at a remote dark-sky location. Involves camping on either two weekends or over a 5-day period. Lectures on planetary geology, solar studies, and survey astronomy. Evening telescope observing sessions. Each night will focus on one branch of astronomy. Car-camping required.
Transfer Credit: Transfers to CSU.

ATHLETICS
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Dale Murray, Program Chair, (831) 479-6149
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Note: For physical education courses see PHYSICAL EDUCATION

Athletics Courses
UC will accept a total of 4 units of PE activity courses and a total of 8 units of sports theory courses (ATH 16-17-18-19).
To enroll in Athletics 15, a student should be able to demonstrate the advanced level skills necessary for safe participation in the activity. To compete, students must meet state eligibility requirements.

ATH 10
Athletic Conditioning
½ - 2 units; 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100
Repeatability: May be taken 4 times.
Provides the opportunity for students to cross train and to improve fitness levels for intercollegiate competition. Functional training, core training, plyometrics, and strength training are emphasized to reduce chances of injury and to improve performance levels during the competitive season.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE Activity courses combined: maximum credit–4 units.

ATH 11
Football Conditioning
½ - 3 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. This course may be audited.
Provides instruction in upper and lower body power training.
Transfer Credit: Transfers to CSU. Transfers to UC pending review.

ATH 15C
Intercollegiate Athletics–Football
2 units; 10 hours Laboratory
ATH 16 or ATH 17. Recommended Preparation: ATH 15CC; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For students interested in intercollegiate competition in football. Open entry/open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15CC
Pre-Season Intercollegiate Football
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate football in a pre-season setting. Open entry/open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.
ATH 15D
Intercollegiate Athletics–Soccer: Men
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15DD; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For men interested in intercollegiate competition in soccer. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.

ATH 15DD
Pre-Season Intercollegiate Soccer: Men
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate soccer in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.

ATH 15E
Intercollegiate Athletics–Soccer: Women
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15EE; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For women interested in intercollegiate competition in soccer. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.

ATH 15EE
Pre-Season Intercollegiate Soccer: Women
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate soccer in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.

ATH 15F
Intercollegiate Athletics–Water Polo: Women
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15FF; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For women interested in intercollegiate competition in water polo. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.

ATH 15FF
Pre-Season Intercollegiate Water Polo: Women
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate water polo in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.

ATH 15G
Intercollegiate Athletics–Volleyball: Women
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15GG; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For women interested in intercollegiate competition in volleyball. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.

ATH 15GG
Pre-Season Intercollegiate Volleyball: Women
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate volleyball in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined; maximum credit–4 units.
ATH 15H
Intercollegiate Athletics–Water Polo: Men
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15HH; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For men interested in intercollegiate competition in water polo. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15HH
Pre-Season Intercollegiate Water Polo: Men
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate water polo in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15I
Intercollegiate Athletics–Basketball: Men
1 - 2 units; 10 hours Laboratory
ATH 18 in fall semester. Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For men interested in intercollegiate competition in basketball. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15J
Intercollegiate Athletics–Basketball: Women
1 - 2 units; 10 hours Laboratory
ATH 19 in fall semester. Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For women interested in intercollegiate competition in basketball. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15K
Intercollegiate Athletics–Baseball
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15KK; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For students interested in intercollegiate competition in baseball. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15KK
Pre-Season Intercollegiate Baseball
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate baseball in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15L
Intercollegiate Athletics–Golf
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15LL; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For students interested in intercollegiate competition in golf. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15LL
Pre-Season Intercollegiate Golf
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate golf in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.
ATH 15M
Intercollegiate Athletics–Softball
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15MM; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For students interested in intercollegiate competition in softball. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15MM
Pre-Season Intercollegiate Softball
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to students interested in intercollegiate softball in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15N
Intercollegiate Athletics–Swimming and Diving: Men
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15NN; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For men interested in intercollegiate competition in swimming and diving. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15NN
Pre-Season Intercollegiate Swimming/Diving: Men
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate swimming or diving in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15P
Intercollegiate Athletics–Swimming and Diving: Women
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15PP; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For women interested in intercollegiate competition in swimming and diving. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15PP
Pre-Season Intercollegiate Swimming/Diving: Women
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate swimming or diving in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15Q
Intercollegiate Athletics–Tennis: Men
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15QQ; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
For men interested in intercollegiate competition in tennis. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15QQ
Pre-Season Intercollegiate Tennis: Men
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.
Presents methods to improve fitness, strength, and flexibility to minimize injury potential to men interested in intercollegiate tennis in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.
ATH 15R
Intercollegiate Athletics—Tennis: Women
2 units; 10 hours Laboratory
Recommended Preparation: ATH 15RR; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.

For women interested in intercollegiate competition in tennis. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 15RR
Pre-Season Intercollegiate Tennis: Women
½ - 1½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of pre-season and regular Athletics courses may be taken a total of 4 times.

Presents methods to improve fitness, strength, and flexibility to minimize injury potential to women interested in intercollegiate tennis in a pre-season setting. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

ATH 16
Football Theory and Practice: Offense
1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents the theory and practice of football-defense, including explanation, organization, and development of offensive skills and strategies, plus the kicking game. This course may be offered in the summer only for 2 units; in the fall for 1 unit. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE Theory courses combined; maximum credit-8 units.

ATH 17
Football Theory and Practice: Defense
1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents the theory and practice of football-defense, including explanation, organization, and development of offensive skills and strategies, plus the kicking game. This course may be offered in the summer only for 2 units; in the fall for 1 unit. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE Theory courses combined; maximum credit-8 units.

ATH 18
Basketball Theory—Men
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents the theory and practice of basketball offensive and defensive theories, transitional techniques, fundamentals, and special situations. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE Theory courses combined; maximum credit–8 units.

ATH 19
Basketball Theory—Women
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents the theory and practice of basketball offensive and defensive theories, transitional techniques, fundamentals, and special situations. Open entry/Open exit.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE Theory courses combined; maximum credit–8 units.

BILINGUAL/BICULTURAL STUDIES
Business, English, and Language Arts Division
James Weckler, Division Dean
H. Jay Siskin, Program Chair, (831) 477-3207
Division Office-Room 501
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Information for Bilingual/Bicultural Studies Majors

Bilingual Bicultural Studies (BBS) is an interdisciplinary program that adds depth to many careers in the areas of second language proficiency and cross-cultural competency. It is valuable to those planning to enter the field of bilingual/cross-cultural education and also enhances the overall preparation of students planning careers or pursuing degrees in a profession or course of study in which bilingual and/or cross-cultural competency is desirable.

For the BBS core requirement, students take BBS 32 and SPAN 1-4 or SPAN 16 and 17 plus two other courses from SPAN 3-30. Students may also meet the language requirement through a skills assessment. Students fulfilling the language requirement either partially or completely through equivalency may substitute classes from the list of approved electives for the Spanish courses. In addition to BBS 32 and the Spanish courses, students take 1-5 units of BBS approved electives to complete at least 20 units.

The program listed below is a pattern of courses leading to an Associate in Arts Degree only. Students who plan to transfer should select as many electives as possible that meet the lower division requirements of the major they plan to pursue.

MODEL PROGRAM FOR BILINGUAL/BICULTURAL STUDIES

The following model program fulfills requirements for the A.A. Degree in Bilingual/Bicultural Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.
### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBS 32</td>
<td>Issues of Linguistic and Cultural Diversity in Education, History and Politics</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1-4</td>
<td>Beginning-Intermediate Spanish</td>
<td>16</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 16-17</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>4-8</td>
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</table>

**plus two courses from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 3</td>
<td>Intermediate Spanish</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 4</td>
<td>Intermediate Spanish</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 5A-B</td>
<td>Advanced Grammar and Composition</td>
<td>3-6</td>
</tr>
<tr>
<td>SPAN 6A-B</td>
<td>Advanced Spanish through Film</td>
<td>3-6</td>
</tr>
<tr>
<td>SPAN 10A</td>
<td>Intermed. Spanish Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10B</td>
<td>Advanced Spanish Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 25-26</td>
<td>Advanced Spanish through Literature</td>
<td>3-6</td>
</tr>
<tr>
<td>SPAN 30B</td>
<td>Mexican Civilization and Culture</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 50L</td>
<td>Language Lab</td>
<td>1-4</td>
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</table>

### Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>ENGL 39</td>
<td>Chicano Literature</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16C</td>
<td>History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21A</td>
<td>Chicano History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21B</td>
<td>Chicano History since 1865</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 5-30</td>
<td>Advanced Grammar, Conversation, Literature, Special Topics in Culture</td>
<td>3-15</td>
</tr>
<tr>
<td>TA 19</td>
<td>Baile Folclórico</td>
<td>1</td>
</tr>
<tr>
<td>WS 5</td>
<td>La Mujer</td>
<td>3</td>
</tr>
<tr>
<td>WS 39C</td>
<td>Cultural Identities of Latinas</td>
<td>3</td>
</tr>
</tbody>
</table>

### Other Electives

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AH 19</td>
<td>Art of the Americas</td>
<td>3</td>
</tr>
<tr>
<td>AH 52</td>
<td>Latin American Art</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>GEG 2</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>WS 6</td>
<td>Women’s Changing Lives in International Perspective</td>
<td>3</td>
</tr>
</tbody>
</table>

### Associate in Arts Degree in Bilingual/Bicultural Studies

<table>
<thead>
<tr>
<th>Category</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
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<td>30</td>
</tr>
<tr>
<td>Bilingual/Bicultural Studies Core Courses</td>
<td></td>
<td>17-25</td>
</tr>
<tr>
<td>Approved Electives</td>
<td></td>
<td>0-4</td>
</tr>
<tr>
<td>Other Electives</td>
<td></td>
<td>0-9</td>
</tr>
<tr>
<td><strong>Total for A.A. Degree in Bilingual/Bicultural Studies</strong></td>
<td></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

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**Biology**

**BBS 33A-Z**

**Special Topics: Contemporary Issues in Linguistically and Ethnically Diverse Communities**

1 - 4 units; 1 hour Lecture

**Recommended Preparation:** Eligibility for ENGL 100 and READ 100.

**Repeatability:** May be taken 4 times. Special topics may differ, or the same topic may be repeated.

A special study of contemporary issues in linguistically and ethnically diverse communities. Topics may include cultural competencies, studies in language and culture for the workplace, barriers that prevent incorporating diversity within mainstream cultures and social institutions, changing models of education, and other political and social issues that are common to diverse communities.

**Transfer Credit:** Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

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**BIOLOGY**

**Natural and Applied Sciences Division**

Wanda Garner, Division Dean
Division Office, Room 701
Tom Sourisseau, Program Chair, (831) 479-6437
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

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**Information for Biology Majors**

(Biology, Agriculture, Physiology, Microbiology, Botany, Entomology, Zoology, Ecology, Environmental Studies, Oceanography, Nursing, Dental Hygiene, Physical Therapy, Public Health, Medical Technology, etc.)

Biology is the study of living organisms. Through the use of the scientific method, biologists seek to understand the unity and diversity of life. By understanding biological processes, we can make intelligent decisions regarding our environment, our health and our place in the ecosystem.

A solid background in the life sciences is required for many careers, including work in the allied health professions, agriculture, food service, parks and recreation, and education. Occupations with a scientific and technological component will be increasingly available in the future.

High School Preparation: Chemistry, physics, and four years of college preparatory mathematics; a foreign language is recommended.

A biology major transfers to a four-year institution to complete a bachelor’s degree. Cabrillo’s Biology program is articulated with the UC and CSU systems and includes the standard courses needed to complete the first two years of the major.

Verification of prerequisites will be required. Prerequisites for courses in this department are computer enforced. Students should be sure records have been entered into the Cabrillo computer system before attempting to enroll.
MODEL PROGRAM FOR BIOLOGY

The following model program fulfills requirements for the A.S./A.A. Degree in Biology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Biology Core Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1ABC</td>
<td>15</td>
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</tbody>
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Related Disciplines

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1AB</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 12A &amp; AL/12B &amp; BL</td>
<td>5-10</td>
</tr>
<tr>
<td>Foreign Language*</td>
<td>0-12</td>
</tr>
<tr>
<td>MATH 5ABC</td>
<td>12</td>
</tr>
<tr>
<td>PHYS 2AB</td>
<td></td>
</tr>
<tr>
<td>PHYS 4ABC</td>
<td>8-15</td>
</tr>
</tbody>
</table>

*The student should consult the catalog of the intended transfer institution concerning the necessity or appropriateness of these courses.

Associate in Science Degree in Biology

| General Education | 21 |
| Biology Core      | 15 |
| From Related Disciplines | 24 |
| Total for A.S. Degree in Biology | 60 |

Associate in Arts Degree in Biology

| General Education | 30 |
| Biology Core      | 15 |
| From Related Disciplines | 15 |
| Total for A.A. Degree in Biology | 60 |

Biology Courses

**BIO 1A**

**Cell and Molecular Biology**

5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1A.
Corequisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: ENGL 100 and READ 100.

Examines in-depth the molecular mechanisms of cell function. Students learn how molecules interact to give cells the ability to use energy, reproduce, grow, and develop. Topics include cell structure and function, cell signaling, DNA structure and function, cell division, genetics, biotechnology, gene expression, development, and human diseases. Introduces students to interpreting and critiquing primary research articles. Laboratories focus on the use of biotechnologies in solving research questions and diseases.

*Transfer Credit*: Transfers to CSU. Transfers to UC. CAN BIOL2.

**BIO 1B**

**Animal Diversity and Evolutionary Principles**

5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 152.
Corequisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: ENGL 100 and READ 100.

Introduces principles of evolutionary biology, and examines their application in a survey of important animal clades. The course also explores in-depth diversity in animal form and function, and considers how evolutionary history, selection, and other factors produce different solutions to problems that many animals have in common. Labs introduce students to techniques used to study evolutionary problems, and give them experience with a diversity of animal groups.

*Transfer Credit*: Transfers to CSU. Transfers to UC. CAN BIOL4.

**BIO 1C**

**Plant Biology and Ecological Principles**

5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 152.
Corequisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: ENGL 100 and READ 100.

Presents an in-depth exploration of diversity in plant form and function, and introduces students to principles of ecology. Students learn how evolutionary history, selection, ecology, and other factors produce different solutions to problems that many plants have in common. The lectures provide the informational and thematic framework for the course. The laboratories introduce students to the diversity of plant groups, and teach techniques used to study ecological problems.

*Transfer Credit*: Transfers to CSU. Transfers to UC. CAN BIOL6.

**BIO 4**

**Human Anatomy**

4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: ENGL 100, READ 100, MA 170A, and MA 170B.

The gross structure of the organ systems of the human body are covered through lecture, demonstrations, and dissection. This course is planned for allied health students. Portions of the course may be offered in a distance format.

*Transfer Credit*: Transfers to CSU. Transfers to UC with limits: BIO 4 combined with BIO 5 and 13A + 13AL- maximum credit: 2 courses. CAN BIOL10.

**BIO 4A**

**Human Anatomy Coordinated Studies**

1 unit; 3 hours Directed study
Corequisite: BIO 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Enrichment program in anatomy, to be taken concurrently with BIO 4. Course is tailored to individual need and interest as enrichment or an expansion of subject area material through laboratory or directed reading.

*Transfer Credit*: Transfers to CSU.
BIO 5  
**Human Physiology**  
4 units; 3 hours Lecture, 3 hours Laboratory  
Prerequisite: CHEM 2 taken at college or CHEM 30A or CHEM 32.  
Recommended Preparation: BIO 4, ENGL 100, and READ 100.  

Presents an exploration of the functions of the various anatomical systems and their underlying chemical basis. Functions of cells, tissues, organs and systems are examined with respect to the human organism through lecture and laboratory. Designed to fill the needs of allied health students. Portions of the course may be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU. Transfers to UC with limits: BIO 5 combined with BIO 4 and 13A + 13AL - maximum credit-2 courses. CAN BIOL12.*

BIO 6  
**Microbiology**  
4 units; 3 hours Lecture, 3 hours Laboratory  
Prerequisite: CHEM 2 taken at college or CHEM 30A or CHEM 32.  
Corequisite: BIO 201.  
Recommended Preparation: ENGL 100 and READ 100.  

Presents a survey of microbiology covering cell structure, metabolism, molecular genetics, growth and control of microorganisms, and their role in infectious disease. Emphasis is on bacterial organisms, but includes eukaryotic microbes and viruses as well.  
*Transfer Credit: Transfers to CSU. Transfers to UC. CAN BIOL14.*

BIO 7  
**Head and Neck Anatomy and Embryology**  
2 units; 1½ hours Lecture, 1½ hours Laboratory  
Prerequisite: BIO 4 and ENGL 100.  
Recommended Preparation: READ 100.  

Covers the skeletal, muscular, vascular and neuroanatomy of the head and neck, emphasizing aspects useful for dental hygiene students. Embryonic development of the head, neck and oral cavity with emphasis on the microscopic anatomy of the mandible, maxilla and associated structures. Portions of the course will be taught in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU. Transfers to UC.*

BIO 10  
**Plants and Civilization**  
3 units; 3 hours Lecture  
Corequisite: BIO 1C.  
Recommended Preparation: Eligibility for ENGL 100 and MATH 154.  

A course dealing with the historical aspects of man’s cultivation and utilization of plants with emphasis on the ways in which plants have influenced human, social, cultural and economic development.  
*Transfer Credit: Transfers to CSU. Transfers to UC.*

BIO 11A  
**General Biology**  
4 units; 3 hours Lecture, 3 hours Laboratory  
Corequisite: Completion of or concurrent enrollment in BIO 201.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Survey of diversity of life with evolutionary concepts used to introduce biological relationships. Topics include cellular structure and function, metabolism, genetics, molecular biology, microorganisms, and human ecology. Emphasis on current biological issues. Recommended for non-biology majors or prospective biology majors who lack previous high school biology course work.  
*Transfer Credit: Transfers to CSU. Transfers to UC with conditions: No credit if taken after BIO 1A, 1B or 1C.*

BIO 11B  
**Marine Biology**  
4 units; 3 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

Explore the local ocean habitats and marine organisms of the Monterey Bay National Marine Sanctuary. Emphasis will be on ecological relationships, adaptations of organisms to their environments, and marine conservation efforts. Several field trips will take place during the lab sessions.  
*Transfer Credit: Transfers to CSU. Transfers to UC.*

BIO 11C  
**Ecology**  
5 units; 3 hours Lecture, 6 hours Laboratory  
Recommended Preparation: MATH 154, ENGL 100 and READ 100.  

Covers the principles of ecology for Biology and Environmental Studies majors, covering factors influencing distribution, abundance and evolution of organisms. Includes simulations, experiments, individual projects and field trips.  
*Transfer Credit: Transfers to CSU. Transfers to UC.*

BIO 13A  
**Biology of People-Anatomy and Physiology**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  

A survey of the integration of structure (anatomy) and function (physiology) which produces the most wonderful of machines, the human body. The healthy state is emphasized but selected disease processes are covered. Intended for nonscience majors. Not open to students who have taken BIO 4 or BIO 5. Portions of this course may be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU. Transfers to UC with limits: BIO 13A + 13AL combined with BIO 4 and 5- maximum credit-2 courses.*
BIO 13AL
**Biology of People-Anatomy & Physiology Lab**
1 unit; 3 hours Laboratory
Corequisite: Completion of or concurrent enrollment in BIO 13A and BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Course is an optional laboratory course to accompany BIO 13A lecture. It involves hands-on experiences to help students understand the various structures and functions of the body. Includes use of models, experimentation, demonstrations, and limited dissection.
*Transfer Credit:* Transfers to CSU. Transfers to UC with limits: BIO 13A + 13AL combined with BIO 4 and 5—maximum credit-2 courses.

BIO 13B
**Biology of People-Human Genetics**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduction to basic principles of inheritance and how they apply to humans. Includes Mendelian genetics, molecular genetics, medical genetics, genetics of cancer and immunity, reproductive technology, human diversity and evolution, behavioral genetics, and bioethics.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

BIO 15A
**Natural History of Western America**
5 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
*Transfer Credit:* Transfers to CSU.

BIO 15AC
**Natural History of Western America**
7 units; 4 hours Lecture, 9 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
*Transfer Credit:* Transfers to CSU.

BIO 15B
**Natural History of Western America**
6 units; 2½ hours Lecture, 10½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
*Transfer Credit:* Transfers to CSU.

BIO 15BCD
**Natural History of Western America**
5 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
*Transfer Credit:* Transfers to CSU.

BIO 15BD
**Natural History of Western America**
4 units; 1½ hours Lecture, 7½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
*Transfer Credit:* Transfers to CSU.

BIO 15C
**Natural History of Western America**
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
*Transfer Credit:* Transfers to CSU.
BIO 15CD
Natural History of Western America
3 units; 1 hour Lecture, 6 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
Transfer Credit: Transfers to CSU.

BIO 15D
Natural History of Western America
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; MATH 154.
Repeatability: May be taken 2 times.
Involves extensive field experiences including biology of deserts, mountains, islands, or tropical forests. Learning will be based upon readings, lectures, group and individual research projects. Focus will be how ecological, behavioral and evolution theory is reflected in patterns seen in these communities, along with identification methods for native plants and animals. Students must be prepared for a primitive camping experience and long hours of intensive learning.
Transfer Credit: Transfers to CSU.

BIO 17A-Z
Special Topics in Biology
2 - 3 units; 1 hour Lecture OR 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 4 times. Each individual course may be taken only once.
Prepresents special topics in biology such as recent advances in specialized fields, vertebrate biology, aquatic biology, soil organisms, and multidisciplinary approaches incorporating chemistry and physics in the effort of scientific inquiry. Course content may vary with each offering.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

BIO 21A
Field Biology
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Introduces natural history classification, distribution, ecology, and evolution of common plants and animals, emphasizing biological field methods in the study of biotic populations.
Transfer Credit: Transfers to CSU. Transfers to UC.

BIO 201
Introduction to the Microscope
½ unit; ½ hour Lecture
An introduction to optical microscopy emphasizing operation of compound and dissecting microscopes. Preparation of various biological specimens will also be considered.

BUSINESS

Business, English, and Language Arts
James Weckler, Division Dean
Division Office, Room 501
Mo Hassan, Program Chair, (831) 477-3201
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Information for Business Majors
The Business program is designed to provide students with theoretical and practical knowledge to prepare them for transfer to four-year institutions. The objective is to teach the fundamental principles underlying organizations, to emphasize education which will improve students’ thought processes, to provide familiarity with the basic analytical tools of business and to develop in the student the ability to use the techniques involved in analyzing and evaluating business problems and finding reasonable solutions. Attention is focused on systems and quantitative analysis, accounting, business law, economics and mathematics.

The General Business program offers three options: an Associate in Science Degree or a Certificate of Proficiency which are designed for direct employment, and an Associate in Arts Degree designed for transfer to a four-year college or university.

MODEL PROGRAM FOR BUSINESS
The following model program fulfills requirements for the A.A. Degree in Business at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.
### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>ACCT 1B</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
</tr>
<tr>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
</tr>
<tr>
<td>MATH 13</td>
<td>Finite Mathematics</td>
</tr>
<tr>
<td>MATH 18</td>
<td>Business Calculus</td>
</tr>
</tbody>
</table>

**Total Business Occupational Core Courses 24**

### Business Courses

**BUS 5**

**Business Information Systems**

4 units; 3 hours Lecture, 1½ hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces management information systems, systems design and development, data communications, data management, office automation, computer hardware and software concepts, and the use of information technology to compete in the business world. Software applications such as word processing (Word), financial spreadsheets (Excel) and database systems (Access) are introduced with appropriate business applications. This course may be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU. Transfers to UC. CAN BUS6.

**BUS 9**

**Business Statistics**

3 units; 3 hours Lecture, 1 hour Laboratory

Prerequisite: MATH 152 with grade "C" or better, or two years of high school algebra with grade average "C" or better, or MATH 13.

Recommended Preparation: Eligibility for ENGL 100.

Collection and presentation of data; measures of central tendency, dispersion, probability, sampling distributions, statistical inference, regression correlation, index numbers, time series analysis, and forecasting. Excel will be introduced for some statistical tests.

**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: BUS 9 combined with MATH 12- maximum credit: 1 course.

**BUS 18**

**Business Law**

4 units; 3 hours Lecture, 1½ hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the United States justice system, covering and relating criminal, civil, employment, torts and contract laws to business operations. History and nature of law, court systems, administrative agencies, crimes, cyber law, the formation and operation of contracts, corporate organization structures, ethical decisions and corporate responsibility and antitrust laws will be covered. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU. Transfers to UC. CAN BUS8.
BUS 20  
**Introduction to Business**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Surveys business principles, problems, practices and procedures. Discussions of the nature of business, ownership, recruitment and training of personnel, labor-management relations, production and distribution of goods, competition, profits, transportation, finance, government, business relations and the interaction of business with society. This course may be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU. Transfers to UC.

BUS 21  
**Internet Resources for Business**  
1½ units; 1½ hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Use of key Internet tools and resources (e.g. search engines, directories, communication tools, databases and data repositories) that support running a business and doing business research including basic information management skills, and simple Web page construction. May be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

BUS 50  
**Advertising for Small Business**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Teaches advertising and promotion for small businesses, emphasizing local and regional media. Topics include media planning, budgeting, and purchasing, media creation, design and layout for television, radio, newspaper, magazine, brochures & flyers, outdoor, direct mail, World Wide Web, press releases and more as marketing tools.  
*Transfer Credit:* Transfers to CSU.

BUS 60  
**International Business**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
This course provides general knowledge of international markets and business. The course will cover organizational and business techniques for various cultures, and markets including: cultural differences, political economy, economic integration, exporting, importing, currency exchange markets and global marketing strategy. May be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

BUS 67  
**Human Relations and Resources**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Applies the principles of motivation, leadership fundamentals, quality improvement, communication, cultural awareness, and organizational structure as they pertain to Human Resources. Topics include motivational theories, business ethics, employee training, conflict resolution, leadership styles, and international cultural awareness. This course may be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

BUS 71  
**International Marketing**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatable: May be taken 2 times.  
Focuses on the impact of cultural and economic elements on global trade and opportunities. The course is designed to promote an understanding of the impact a country’s culture and environment have on the marketing plan and marketing strategies.  
*Transfer Credit:* Transfers to CSU.

BUS 75  
**Business, Society and Government**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Teaches the relationship dynamics among business, government, and society. Critically examines how business ethics, global environment, social factors, and government regulations influence business decisions, consumers, and legislators. Analyzes and compares the advantages and disadvantages of socially responsible and economic business models.  
*Transfer Credit:* Transfers to CSU.

BUS 82  
**Marketing Principles**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Teaches the application of business marketing concepts and principles. Course introduces and analyzes the marketing mix (product, price, promotion, and placement) and marketing strategies as they pertain to business operations. The course will provide general and practical knowledge on marketing research, target market analysis, consumer behavior and promotional campaigns. This course can be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

BUS 88  
**Starting and Operating a New Small Business**  
3 - 4 units; 3 hours Lecture, 9 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatable: May be taken 2 times.  
Covers the skills entrepreneurs need to succeed in new ventures: legal steps and paperwork, startup capital, demand and pricing, business feasibility, location, expenses and cash flow, marketing and writing a business plan. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

BUS 89  
**Starting & Operating an eCommerce Business**  
3 units; 3 hours Lecture, 9 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatable: May be taken 2 times.  
Introduces eCommerce for new or existing businesses planning to create a business presence online. Covers eCommerce, planning and designing a Web site, Web assets, technology and Web architecture, Web sales and security, attracting and keeping customers, maintaining the business Web presence, legal issues and creating a simple business Web site. This course may be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.
BUS 120
Introduction to Project Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces and provides practice with the elements of managing a project: basic tools and language of project management, the interrelationships of cost, schedule and performance, project scopes and goals, scheduling and estimating, resource assignment, risk management, organizational dynamics, and project monitoring and control. May be taught in a Distance-Learning Format.

BUS 155
Business Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 254 or basic arithmetic skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A study of mathematics as applied to business, with emphasis on notes and interest, invoices and discounts, annuities, payrolls, sales and property taxes, stocks and bonds and bank reconciliations. Required for all Accounting and Business certificates and degrees.

BUS 163
Global Business Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces basic management principles, concepts and practices. An explanation of management functions and leadership styles will be provided. Current issues and trends will be integrated throughout the course. This course may be offered in a Distance-Learning Format.

BUS 190A-Z
Special Topics in Globalization, Business and Society
1 - 4 units; 1 hour Lecture, 3 hours Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
This course examines the impact of globalization and technological innovations on modern society, trade, and business practices. The course will also examine how a specific culture and society manifest itself in business negotiations, etiquette, and world trade. The course may focus on a specific country, region, or area to examine the impacts and manifestations.

CHEMISTRY
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Jason Camara, Program Chair, (831) 477-5621
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Information for Chemistry Majors
Chemistry is the study of the properties, composition and transformations of all material substances. It is often called the "central science" since it draws from mathematics and physics and forms a necessary background to the study of the earth sciences and all the biological disciplines, including the various medical professions. A chemistry major is considered excellent preparation for medical school.
As pure scientists, chemists seek to understand ever more complex substances in greater detail. As applied scientists, chemists contribute to the creation and development of thousands of the products that support our complex society. Chemistry is a profoundly experimental science and much of a student's time will be spent in the laboratory.
A chemistry major usually transfers to a four-year institution to complete a bachelor's degree. Many also go on to earn Masters or Ph.D.s, since advanced degrees generally lead to more rewarding careers. Cabrillo's chemistry program is articulated with those of the UC and CSU systems and includes the standard courses needed to complete the first two years of the major.
Verification of prerequisites will be required. Prerequisites for courses in this department are computer enforced. Students should be sure their records have been entered into the Cabrillo computer system before attempting to enroll.

MODEL PROGRAM FOR CHEMISTRY
The following model program fulfills requirements for the A.S./A.A. Degree in Chemistry at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.
The following core courses are required for transfer for all chemistry majors. (Choose 39 units from the core courses: at least 20 units of CHEM courses)

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CHEM 1B</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>+CHEM 5</td>
<td>Quantitative Analysis (spring, odd yrs. only)</td>
</tr>
<tr>
<td>++CHEM 12A</td>
<td>Organic Chemistry (fall only)</td>
</tr>
<tr>
<td>++CHEM 12AL</td>
<td>Organic Chemistry Laboratory (fall only)</td>
</tr>
<tr>
<td>+CHEM 12B</td>
<td>Organic Chemistry (spring only)</td>
</tr>
<tr>
<td>+CHEM 12BL</td>
<td>Organic Chemistry Laboratory (spring only)</td>
</tr>
<tr>
<td>Foreign Language*</td>
<td>8-12</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>Analytic Geometry &amp; Calculus I</td>
</tr>
<tr>
<td>MATH 5B</td>
<td>Analytic Geometry &amp; Calculus II</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>Analytic Geometry &amp; Calculus III</td>
</tr>
<tr>
<td>+MATH 6</td>
<td>Introduction to Linear Algebra (spring only)</td>
</tr>
<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Physics for Scientists and Engineers</td>
</tr>
<tr>
<td>++PHYS 4B</td>
<td>Physics for Scientists and Engineers (fall only)</td>
</tr>
<tr>
<td>+PHYS 4C</td>
<td>Physics for Scientists and Engineers (spring only)</td>
</tr>
<tr>
<td>++PHYS 4D</td>
<td>Modern Physics (fall even only)</td>
</tr>
</tbody>
</table>

*The student should consult the catalog of the intended transfer institution concerning the necessity or appropriateness of these courses.

Associate in Science Degree in Chemistry
General Education | 21
Chemistry Core (20 units must be CHEM courses) | 39
Total for A.S. Degree in Chemistry | 60
Associate in Arts Degree in Chemistry

General Education ........................................ 30
Chemistry Core (20 units must be CHEM courses) ...... 20-24
Electives .................................................. 6-10
Total for A.A. Degree in Chemistry .............. 60

Chemistry Courses

CHEM 1A
General Chemistry
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 2 or equivalent or high school chemistry with grade 'B' or better and MATH 152 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
General chemical principles including structure of matter, chemical equations and bonding, gases, solutions, periodic law, acids and bases, and chemical equilibrium.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CHEM 2.

CHEM 1B
General Chemistry
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1A.
General chemical principles to include a review of equilibrium, acid/base chemistry, electrochemistry, chemical thermodynamics, structure, nomenclature and properties of coordination compounds, nuclear chemistry, introduction to organic chemistry.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CHEM 4.

CHEM 2
Introductory Inorganic Chemistry
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 152.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers fundamental principles of inorganic chemistry. Course topics include chemical calculations, classification of matter, the atomic and kinetic theories of matter and the mole concept. Prepares students for CHEM 1A.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CHEM 2.

CHEM 5
Quantitative Analysis
4 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares quantitative chemical determinations using classical (gravimetric, volumetric) and instrumental (electrochemical, spectrochemical, polarimetric, chromatographic) methods; data obtained from these experiments will then be analyzed utilizing statistical methods. Designed for any scientific discipline that requires the knowledge and skills necessary to perform quantitative chemical determinations.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CHEM 12.

CHEM 10
Concepts of Chemistry
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.
Prepares a introduction to atoms, molecules, reactions, nomenclature, energy, and how these explain our material world. Examines the chemical concepts most useful for understanding contemporary life—food, water, artists' materials, nuclear reactions, modern chemical industry and its impact on our environment.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: No credit for CHEM 10 if taken after CHEM 1A.

CHEM 12A
Organic Chemistry
3 units; 3 hours Lecture
Prerequisite: CHEM 12AL or concurrent enrollment and CHEM 1B.
The lecture portion of the first semester of the year-long organic chemistry course designed for chemistry majors and pre-professional medical and biology majors. Includes stereochemistry, mechanisms, reactions and spectroscopic studies of aliphatic compounds. (CHEM 12AL strongly recommended.)
Transfer Credit: Transfers to CSU. Transfers to UC.

CHEM 12AL
Organic Chemistry Laboratory
2 units; 6 hours Laboratory
Prerequisite: CHEM 12B or concurrent enrollment in CHEM 12B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Prepares an introduction to microscale laboratory and instrumental techniques covering isolation, synthesis and identification of many classes of organic compounds.
Transfer Credit: Transfers to CSU. Transfers to UC.

CHEM 12B
Organic Chemistry
3 units; 3 hours Lecture
Prerequisite: CHEM 12A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers mechanisms, synthesis and spectroscopy of aliphatic and aromatic alcohols, amines, carbonyl and carboxyl compounds, carbohydrates and proteins. (CHEM 12BL optional)
Transfer Credit: Transfers to CSU. Transfers to UC.
CHEM 30A
Inorganic Chemistry for Health Occupations
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers chemical concepts such as atomic structure, acids and bases, salts, buffers, electrolyte systems and nuclear chemistry. Appropriate for students interested in physiology and paramedical fields.
Transfer Credit: Transfers to CSU. CAN CHEM6.

CHEM 30B
Introductory Organic Chemistry and Biochemistry for Health Occupations
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 154; high school chemistry or CHEM 30A or CHEM 2.
Survey of the major classes of organic and biochemical compounds as they relate to the chemistry of life processes. Designed for students preparing for the Dental Hygiene program or a four year nursing degree.
Transfer Credit: Transfers to CSU. CAN CHEM8.

CHEM 32
Chemistry for the Allied Health Major
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents a one semester survey of general and organic chemistry as preparation for careers in the allied health sciences. It is not appropriate for premed, dental or veterinary students nor is it intended for allied health students requiring two semesters of chemistry.
Transfer Credit: Transfers to CSU. *CHEM 32 is a one-semester alternative that satisfies the CHEM 30A/CHEM 30B two semester sequence required for students transferring to some 4-year Nursing Programs - please see a counselor or check www.assist.org for more information. CHEM 32 also satisfies the prerequisite requirement for BIO 5 and BIO 6.

Chinese Courses

CHIN 1
Beginning Chinese (Mandarin)
4 units; 4 hours Lecture
Corequisite: CHIN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduction to understanding, speaking, reading and writing modern Mandarin Chinese. Increasing emphasis will then be placed upon reading and writing as well as speaking and understanding. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CHIN2.

CHIN 2
Elementary Chinese (Mandarin)
4 units; 4 hours Lecture
Prerequisite: CHIN 1, or two years of high school Chinese, or the equivalent.
Corequisite: CHIN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Communicative approach including practice in aural comprehension. Speaking, reading and writing, including basic vocabulary and idiomatic expressions. Appreciation of Chinese culture is emphasized. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CHIN4.

CHIN 50L
Chinese Language Laboratory
1 - 4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of Chinese 1-2. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CHINESE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs
Information for Communication Studies Majors

In the broadest sense, Communication Studies is the study of all human communication with a focus on verbal behavior. It is not limited to the training of great orators as the leaders of society, but includes training for and analysis of communication within small and large groups, between two individuals and even communication within the individual. In all forms of communication, people talk together in order to influence the behavior of other human beings. A speaker can manage essential factors within a communication situation such as idea selection, language use, and vocal or physical presentation and can thus affect the behaviors which will be produced. Competent communicators also must be skilled in the critical analysis and evaluation of the messages that they hear in order to formulate effective and appropriate responses.

Topics in this field include: political debates, communicating across cultures, gender differences in communication, conflict resolution and negotiation, uses of power within groups, needs of non-native speakers, listening, and techniques for overcoming speech anxiety. A degree in Communication Studies can lead to a career (or further study) in public relations, teaching, consulting, broadcasting, law, ministry, public administration, politics, or any field in which communication skills are highly valued. For specific transfer requirements, see a counselor.

MODEL PROGRAM FOR COMMUNICATION STUDIES

The following model program fulfills requirements for the A.A. Degree in Communication Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2</td>
<td>3</td>
</tr>
<tr>
<td>COMM 6</td>
<td>1</td>
</tr>
<tr>
<td>COMM 10</td>
<td>3</td>
</tr>
<tr>
<td>COMM 12</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 4</td>
<td>Persuasion and Argumentation</td>
<td>3</td>
</tr>
<tr>
<td>COMM 7</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 8</td>
<td>Communication Activities</td>
<td>1-4</td>
</tr>
<tr>
<td>CS 1</td>
<td>Introduction to Computers and</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computer Technology</td>
<td></td>
</tr>
<tr>
<td>CS 1L</td>
<td>Lab: Introduction to Computers and</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Computer Technology</td>
<td></td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Understanding Society</td>
<td></td>
</tr>
</tbody>
</table>

Associate in Arts Degree in Communication Studies

General Education .................................................30
Communication Studies Core ..................................13
Approved Electives ............................................ 7
Electives .........................................................10
Total for A.A. Degree in Communication Studies ..........60

Communication Studies Courses

COMM 1
Public Speaking
3 units; 3 hours Lecture
Corequisite: COMM 6.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Emphasizes managing speech anxiety, organizing and outlining ideas, informing an audience, presenting arguments, and learning persuasive strategies. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN SPCH4.

COMM 2
Group Discussion
3 units; 3 hours Lecture
Corequisite: COMM 6.
Recommended Preparation: Eligibility for ENGL 100.
Emphasis is placed on decision making and problem solving in small groups. A central theme of this course is how to structure cooperation into the group process. Additional subjects include group development, leadership, power, and conflict management.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: COMM 2 & 10 combined-maximum credit-1 course. CAN SPCH10.

COMM 4
Persuasion and Argumentation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
An introduction to the basic elements of argumentation and a discussion and application of persuasive strategies. Some emphasis placed on debating controversial issues and learning fundamental debate techniques.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN SPCH6.
COMM 6
Listening
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces the role of the listener in communication with discussion and activities focusing on listening habits, perception, and types of listening (including empathic, comprehensive, and critical skills). May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

COMM 7
Interpersonal Communication
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The theory and practice of communication in personal and professional relationships. Emphasizes interpersonal competence in perception, listening, verbal and nonverbal messages and conflict management. Examines how behavior, society, and culture are interwoven to affect communication.
Transfer Credit: Transfers to CSU. Transfers to UC.

COMM 8
Communication Activities
1 - 4 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100.
Supervised activity in various aspects of speech communication. The activities will include observation and/or experience in communicating with or before community and/or college groups. This course shall be regarded as a practical extension of classroom activity.
Transfer Credit: Transfers to CSU.

COMM 10
Communication Process
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
Provides experience in the three levels of communication: one-to-one, one-to-few, and one-to-many. Emphasis is placed on understanding the dynamics of communication with major emphasis on verbal and nonverbal communication, cooperation vs. competition, conflict management, interpersonal communication, and mass communication.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: COMM 2 & 10 combined-maximum credit-1 course.

COMM 12
Intercultural Communication
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
Provides an understanding of the dynamics of intercultural communication with application to American culture, subcultures and different cultures of the world. Emphasis on communication perceptions, self-awareness and world views, verbal and nonverbal differences, and responses to culture shock.
Transfer Credit: Transfers to CSU. Transfers to UC.

COMPUTER APPLICATIONS/BUSINESS TECHNOLOGY

Business, English, and Language Arts
James Weckler, Division Dean
Division Office, Room 501
Clayta Ross, Program Chair, (831) 477-3203
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Computer Applications/Business Technology (CABT) Occupational Program

Computer Applications/Business Technology (CABT) prepares students to use computer applications and business procedures to solve problems in contemporary business environments. CABT courses are applicable in many career ladders including vocational training and retraining, and career advancement. The CABT Department, in collaboration with Disabled Students Programs & Services (DSPS), provides specialized services for students requiring assistive technology support (Assistive Technology Lab). CABT courses, certificates, and the AS Degree are stepping-stones to a variety of professional careers in business and technology.

Skills Certificate:
- Computer Skills for the Office
- Professional Computer Applications

Certificates of Proficiency:
- Administrative Support
- Computer/Business Applications

A.S. Degree:
- Computer/Business Applications

Career Opportunities
CABT courses incorporate the specialized technology skills necessary for employment in the current job market. CABT certificate and degree holders are skilled in traditional office-related occupations such as office clerk, secretary, administrative assistant, receptionist, office specialist, or customer service representative. They are well-versed in information-age technology such as Internet research, e-mail, spreadsheets, databases, and word processing. A degree in CABT can lead to careers in human resources, public administration, marketing, medical facility management, or small business administration.
**CABT Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
<td>3</td>
</tr>
<tr>
<td>CABT 100</td>
<td>Business Technology &amp; Procedures</td>
<td>3</td>
</tr>
<tr>
<td>*CABT 101</td>
<td>Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td><strong>CABT 110A, 110B</strong></td>
<td>Computer Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>CABT 131</td>
<td>Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>CABT 156</td>
<td>Business Grammar</td>
<td>3</td>
</tr>
</tbody>
</table>
| * CABT 118 plus CABT 160 plus CABT 106 may be substituted for CABT 101 to satisfy core requirements. **Students who keyboard 30+ wpm with 1 error per minute (epm) or less may apply to waive CABT 110A and B and may be able to substitute from the Approved Electives list. Contact a counselor or CABT instructor for more information.**

**Administrative Support Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 41</td>
<td>Excel for Windows</td>
<td>3</td>
</tr>
<tr>
<td>CABT 102</td>
<td>10-Key Calculator</td>
<td>1</td>
</tr>
<tr>
<td>CABT 161</td>
<td>Creating a Simple Web Site</td>
<td>2</td>
</tr>
</tbody>
</table>
| OR          | Excluding CABT 118 plus CABT 160 plus CABT 106 may be substituted for CABT 101 to satisfy core requirements. **Students who keyboard 30+ wpm with 1 error per minute (epm) or less may apply to waive CABT 110A and B and may be able to substitute from the Approved Electives list. Contact a counselor or CABT instructor for more information.**

**Computer/Business Applications Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 41</td>
<td>Excel for Windows</td>
<td>3</td>
</tr>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>CABT 199C</td>
<td>Career Work Experience Education</td>
<td>3</td>
</tr>
</tbody>
</table>
| OR          | Excluding CABT 118 plus CABT 160 plus CABT 106 may be substituted for CABT 101 to satisfy core requirements. **Students who keyboard 30+ wpm with 1 error per minute (epm) or less may apply to waive CABT 110A and B and may be able to substitute from the Approved Electives list. Contact a counselor or CABT instructor for more information.**

**Approved Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 151A</td>
<td>Introduction to Accounting: Bookkeeping Concepts</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 163</td>
<td>Using QuickBooks</td>
<td>3</td>
</tr>
<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Starting and Operating an eCommerce Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 155</td>
<td>Business Math</td>
<td>3</td>
</tr>
<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>CABT 102</td>
<td>10-key Calculator</td>
<td>1</td>
</tr>
<tr>
<td>CABT 103A</td>
<td>Data Entry on the Computer</td>
<td>1</td>
</tr>
<tr>
<td>CABT 103B</td>
<td>Advanced Data Entry</td>
<td>1</td>
</tr>
<tr>
<td>***CABT 106</td>
<td>Introduction to the Cabrillo Computer Labs</td>
<td>½</td>
</tr>
<tr>
<td>CABT 110C</td>
<td>Computer Keyboarding-Speed Development</td>
<td>½</td>
</tr>
<tr>
<td>***CABT 118</td>
<td>Using Microsoft Windows</td>
<td>1</td>
</tr>
<tr>
<td>***CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>***CABT 160</td>
<td>Introduction to the Internet and the World Wide Web</td>
<td>1½</td>
</tr>
<tr>
<td>CABT 161</td>
<td>Creating a Simple Web Site</td>
<td>2</td>
</tr>
<tr>
<td>***CABT 199C</td>
<td>Career Work Experience Education</td>
<td>1-3</td>
</tr>
<tr>
<td>CS 1</td>
<td>Introduction to Computers and Computer Technology</td>
<td>3</td>
</tr>
<tr>
<td>***DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
</tbody>
</table>

**Skills Certificate: Computer Skills for the Office**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td><em>CABT 110A, 110B</em>*</td>
<td>Computer Keyboarding</td>
<td>3</td>
</tr>
</tbody>
</table>
| OR          | Excluding CABT 118 plus CABT 160 plus CABT 106 may be substituted for CABT 101 to satisfy core requirements. **Students who keyboard 30+ wpm with 1 error per minute (epm) or less may apply to waive CABT 110A and B and may be able to substitute from the Approved Electives list. Contact a counselor or CABT instructor for more information.**

**Certificate of Proficiency: Administrative Support**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT Core Courses</td>
<td>16</td>
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<tr>
<td>Administrative Support Core courses</td>
<td>6-7</td>
<td></td>
</tr>
<tr>
<td>ENGL 100/1A/1AMC or CABT 157</td>
<td>3</td>
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<tr>
<td>Total for Certificate of Proficiency</td>
<td>25-26</td>
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</tbody>
</table>

**Certificate of Proficiency: Computer/Business Applications**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT Core Courses</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Computer/Business Applications Core Courses</td>
<td>9-10</td>
<td></td>
</tr>
<tr>
<td>ENGL 100/1A/1AMC or CABT 157</td>
<td>3</td>
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<td>Total for Certificate of Proficiency</td>
<td>28-29</td>
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</tbody>
</table>

**Associate in Science Degree: Computer/Business Applications**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>21</td>
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</tr>
<tr>
<td>CABT Core courses</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Computer/Business Applications Core Courses</td>
<td>9-10</td>
<td></td>
</tr>
<tr>
<td>Approved Electives</td>
<td>8</td>
<td></td>
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<tr>
<td>Electives</td>
<td>5-6</td>
<td></td>
</tr>
<tr>
<td>Total for A.S. Degree in Computer/Business Applications</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>
Computer Applications/Business Technology Courses

CABT 38
Introduction to Microsoft Office
3 - 4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: CABT 110A, CABT 106 (or equivalent experience)
Recommended Preparation: CABT 118 or CABT 101 (or equivalent experience); Eligibility for ENGL 100 and READ 100.

Covers basic and intermediate features of the Microsoft Office suite for producing professional documents and presentations: Word (word processing), Excel (spreadsheet), PowerPoint (presentation), and Access (database). Does not cover the individual applications in the same detail as they are covered in CABT 131 (Word), CABT 41 (Excel), and CABT 142 (Access). May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU.

CABT 41
Excel for Windows
3 units; 3 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 106 (may be taken concurrently) or recent computer course using Windows. CABT 110A or basic typing skills. Eligibility for ENGL 100 and READ 100, and MATH 154.

Covers intermediate features of Microsoft Excel, including creating and managing spreadsheets, charts, small databases and use of Excel with the Internet. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU.

CABT 100
Business Technology & Procedures
3 units; 3 hours Lecture, 4 hours Laboratory
Corequisite: CABT 110A and CABT 101 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Introduces business procedures and office equipment with an emphasis on the integrated use of technology in a modern business environment. Topics include fundamental computer hardware and software, basic business correspondence, written and oral reports, time management, and preparing standard business forms such as purchase requisitions. Examples of technology include the use and basic troubleshooting of personal computers, printers, scanners, fax, reprographics, multi-line phones, and typewriters.

CABT 101
Computer Proficiency
3 units; 3 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Provides computer proficiency skills for beginning computer users including the use of Word, Excel, Windows file management, e-mail, Internet research, and creating a simple web page. Includes a diverse set of computer skills used in business and college. Topics focus on fundamental computer employability standards identified by Santa Cruz County educators and employers.

CABT 102
10-Key Calculator
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154, ENGL 100 and READ 100.

Teaches the 10-key touch system using electronic calculators to solve typical business problems and applications in a self-paced course format. Practice addition, subtraction, multiplication, division, mixed operations, percentages, and memory functions. Students may enroll through the twelfth week of instruction. May be offered in a Distance-Learning Format.

CABT 103A
Data Entry on Computer
1 unit; 3 hours Laboratory
Recommended Preparation: CABT 110B or equivalent skills. Eligibility for ENGL 100 and READ 100.

Teaches keyboarding alphabetic and numeric data for computer-based data entry in a hands-on, self-paced format. Covers standard operations and procedures used in typical business and government data entry applications. Students may enroll through the twelfth week of instruction. May be offered in a Distance-Learning Format.

CABT 103B
Advanced Data Entry
1 unit; 3 hours Laboratory
Prerequisite: CABT 103A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Develop speed and accuracy in keyboarding alphabetic and numeric data for computer-based data entry in a hands-on, self-paced format. Focuses on data entry for payroll systems, sales and purchase orders and accounts receivable/accounts payable. Students may enroll through the twelfth week of instruction. May be offered in a Distance-Learning Format.

CABT 106
Introduction to the Cabrillo Computer Labs
½ units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the use of computers in the Cabrillo College computer labs for beginning computer users. Includes lab policies and procedures. Students receive hands-on experience with the Windows or Macintosh operating system, basic computer operation, the World Wide Web, and the creation, storage, and retrieval of documents.

CABT 110A
Computer Keyboarding-Alphabet Keys
½ units; ½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers alphabetic keyboarding skills using the touch technique in a hands-on, self-paced format. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format. Credit/no credit grading only.
CABT 110B
Computer Keyboarding-Numbers/Symbols
½ units; 1½ hours Laboratory
Prerequisite: CABT 110A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops speed using the alphanumeric keyboard, including numbers, symbols, and the numeric keypad in a hands-on, self-paced format. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format. Credit/no credit grading only.

CABT 110C
Computer Keyboarding-Speed Development
½ units; 1½ hours Laboratory
Prerequisite: CABT 110A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 4 times. Students may repeat to increase speed in 10 words per minute increments.
Develops increasing speed and accuracy using the alphabetic keyboard in a hands-on, self-paced format. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format. Credit/no credit grading only.

CABT 118
Using Microsoft Windows
1 unit; 1 hour Lecture, 2 hours Laboratory
Required Preparation: Eligibility for ENGL 100 and READ 100.
Covers the fundamental use of the PC and Windows operating system including file management, simple troubleshooting, running and installing programs, customizing the desktop, and using Windows accessory programs such as WordPad, Paint, and Internet Explorer.

CABT 131
Microsoft Word
3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: CABT 110A or equivalent keyboarding experience and CABT 106 or equivalent computer experience.
Recommended Preparation: CABT 118 or CABT 101 or equivalent computer experience; Eligibility for ENGL 100 and READ 100.
Covers the basic, intermediate, and expert features of the word processing program Microsoft Word necessary to produce professional quality business documents. Topics include: creating, formatting, editing, and printing business documents (letters, memoranda, and reports). Additional features include tables, headers and footers, mail merge, macros, tables and indexes, and creating fill-in forms. Symbols, graphic elements, WordArt, borders, and charts are used to enhance documents. May be offered in a Distance-Learning Format.

CABT 156
Business Grammar
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reviews grammar, sentence construction, punctuation, and business vocabulary. The course emphasizes organizing and expressing information that is grammatically and mechanically correct. May be offered in a Distance-Learning Format.

CABT 157
Business and Technical Writing
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: Eligibility for ENGL 1A or completion of CABT 156.
Required Preparation: .
Focuses on techniques for writing, organizing, and editing business and technical documents. Includes audience analysis and strategies for delivering positive, negative, or persuasive information through electronic and paper communications. May be offered in a Distance-Learning Format.

CABT 160
Introduction to the Internet and the World Wide Web
1½ units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: CABT 106 (may be taken concurrently) or equivalent knowledge of Windows or the Macintosh. Those without typing skills are encouraged to take CABT 110A; Eligibility for ENGL 100 and READ 100.
Covers the structure and function of the Internet and World Wide Web including e-mail, Internet research, uploading/downloading files and creating a simple web page with HTML.

CABT 161
Creating a Simple Web Site
2 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 101 or CABT 160 or equivalent computer and Internet skills.
Covers creation of simple web sites with easy-to-use tools; includes basic graphics, photo editing, HTML commands, uploading to the Internet, and maintaining a site. For professional web development courses, see the Digital Media program.

CABT 190A-Z
Special Topics in Computer Applications/Business Technology
½ - 3 units; ½ hour Lecture, 1½ hours Laboratory
Repeatable: May be taken 4 times in different areas.
A course designed to investigate special selected areas of interest in computer applications and business technology not covered by regular catalog offerings. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.
CABT 210
Basic Computer Keyboarding
½ units; 1½ hours Laboratory
Repeatability: May be taken 2 times.
Introduces basic alphabetic keyboarding skills in a hands-on, self-paced format. May be offered in Distance-Learning Format. Credit/no credit grading only.

CABT 215
Introduction to Using the Computer
3 units; 3 hours Lecture, 4 hours Laboratory
Offers basic instruction in word processing, e-mail, World Wide Web, Windows operating system, and basic functions of a computer system including hands-on lab time with an instructor; for students with no previous computer experience. May be offered in English or bilingually. The textbook is in English.

CABT 272
Assistive Technology Instruction
1 unit; 2 hours Laboratory
Recommended Preparation: Eligibility for Disabled Student Programs and Services.
Repeatability: May be taken 4 times.
Covers essential computer skills for students with disabilities or ergonomic needs, including voice recognition, screen reading, screen magnification, and text-to-speech software.

CABT 280
Kurzweil 3000 for College Success
1 unit; 1 hour Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Introduces Kurzweil 3000 software for converting text to spoken language, including use for word processing, writing development, and improvement of study and test-taking skills; appropriate for students with learning disabilities. Covers related computer technology skills such as scanning text, importing text from the internet, creating electronic notes and examining the main idea of an electronic text passage.

CABT 284L
Adaptive Word Processing Lab
1 unit; 3 hours Laboratory
Prerequisite: CABT 284 or concurrent enrollment.
Recommended Preparation: .
Teaches students with assistive technology needs the adaptations for word processing in order to improve written language expression and essential computer skills.

CABT 285
Advanced Assistive Technology
1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: CABT 272 or experience with assistive technology software.
Repeatability: May be repeated.
Enhances computer literacy and assistive technology skills through study of specific topics in assistive technology and completion of a culminating project.

CABT 290A-Z
Special Topics in Basic Computer Applications/Business Technology
½ - 3 units; ½ hour Lecture, 1½ hours Laboratory
Repeatability: May be taken 4 times in different topic areas.
Investigates special selected areas of interest in computer applications and business technology not covered by regular catalog offerings at the 200-level. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.

CABT 510
Basic Computer Skills
0 units; 3 hours Laboratory
Repeatability: May be repeated.
Provides self-paced instruction (non-credit) in the use of computer software and hardware in an open computer lab environment for students also enrolled in at least one for-credit Cabrillo class. Enhances preparation for college course work or for employment. Enrollment is permitted throughout the semester.

COMPUTER AND INFORMATION SYSTEMS
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Susan Nerton, Program Chair, (831) 479-6545

Computer and Information Systems
The Computer and Information Systems Department offers two programs: Computer Networking and System Administration (CNSA) and Computer Support Specialist (CSS). Both programs are designed to help students acquire the knowledge and skills necessary to work in computer technical support positions and prepare for industry certification exams. Additionally, the CNSA program offers an A.S. Degree which meets the transfer requirements for CSUMB, a certificate of proficiency and skills certificates. The CSS program offers an A.S. Degree, a certificate of proficiency, and skills certificates. Please refer to the CNSA and CSS programs for details.
### COMPUTER NETWORKING AND SYSTEM ADMINISTRATION

**Natural and Applied Sciences Division**

Wanda Garner, Division Dean
Division Office, Room 701
Rick Graziani, Program Contact, (831) 479-5783
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

#### Computer Networking and System Administration Occupational Program

The Computer Networking and System Administration program is intended to prepare students to work in the Information Technology (IT) industry in general, and more specifically in computer networking and system administration. Courses include the underlying networking concepts and theory, administering the network infrastructure including the Cisco Systems CCNA/CCNP courses, system and network administration using UNIX/Linux and Microsoft operating systems, network security, network management, and emerging technologies. Various certificates and degree options are available, including courses that transfer to four-year universities for those students pursuing a Bachelor’s Degree.

#### ASSOCIATE IN SCIENCE AND CERTIFICATE OF PROFICIENCY

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 81</td>
<td>Networking Fundamentals and Theory (Cisco CCNA 1)</td>
</tr>
<tr>
<td>CIS 82</td>
<td>Introduction to Routing Technologies and Theory (Cisco CCNA 2)</td>
</tr>
<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
</tr>
<tr>
<td>CIS 172</td>
<td>Introduction to Operating Systems</td>
</tr>
<tr>
<td>CIS 175</td>
<td>Fundamentals of Computer Security</td>
</tr>
<tr>
<td>CIS 194</td>
<td>Microsoft Windows Client Administration</td>
</tr>
</tbody>
</table>

And one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 11</td>
<td>Introduction to Programming Concepts and Methodology, C++</td>
<td>4</td>
</tr>
<tr>
<td>CS 12J</td>
<td>Introduction to Programming Concepts and Methodology, Java</td>
<td>4</td>
</tr>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 130</td>
<td>UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 131</td>
<td>Perl Programming in a Unix Environment</td>
<td>4</td>
</tr>
<tr>
<td>CIS 132</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>25</strong></td>
</tr>
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</table>

#### Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 2</td>
<td>Foundations of Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CIS 60A-ZZ</td>
<td>Special Topics in Computer and Information Systems</td>
<td>½-4</td>
</tr>
<tr>
<td>CIS 83</td>
<td>Switched Networks and WANs, (Cisco CCNA 3 &amp; 4)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 99C</td>
<td>Career Work Experience Education</td>
<td>1-4</td>
</tr>
<tr>
<td>CIS 140W</td>
<td>Fundamentals of Wireless LANs</td>
<td>4</td>
</tr>
<tr>
<td>CIS 160A-ZZ</td>
<td>Special Topics in Computer and Information Systems</td>
<td>½-4</td>
</tr>
<tr>
<td>CIS 164</td>
<td>Introduction to Managing and Securing a Web Server</td>
<td>3</td>
</tr>
<tr>
<td>CIS 170</td>
<td>Introduction to Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIS 170AB</td>
<td>A+ Certification Exam Preparation</td>
<td>2</td>
</tr>
<tr>
<td>CIS 181A</td>
<td>Networking Fundamentals (Cisco CCNA 1)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 182A</td>
<td>Introduction to Routing Technologies (Cisco CCNA 2)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 183A</td>
<td>Intermediate Routing and Switching (Cisco CCNA 3 &amp; 4)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 185</td>
<td>Advanced Routing (Cisco CCNP 1)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 186</td>
<td>Implementing Secure Converged WANs (Cisco CCNP 2)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 187</td>
<td>Multilayer Switched Networks (Cisco CCNP 3)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 188</td>
<td>Optimizing Converged Cisco Networks (Cisco CCNP 4)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 191AB</td>
<td>UNIX/Linux Installation, Configuration and Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 191A</td>
<td>UNIX/Linux Installation and Configuration</td>
<td>2</td>
</tr>
<tr>
<td>CIS 191B</td>
<td>UNIX/Linux System Administration</td>
<td>2</td>
</tr>
<tr>
<td>CIS 192</td>
<td>UNIX/Linux Network Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 192A</td>
<td>UNIX/Linux TCP/IP Administration</td>
<td>2</td>
</tr>
<tr>
<td>CIS 192B</td>
<td>UNIX/Linux Network Services</td>
<td>2</td>
</tr>
<tr>
<td>CIS 193</td>
<td>UNIX/Linux Security Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 193A</td>
<td>UNIX/Linux Host Security Basics</td>
<td>2</td>
</tr>
<tr>
<td>CIS 193B</td>
<td>UNIX/Linux Network Security Basics</td>
<td>2</td>
</tr>
<tr>
<td>CIS 195</td>
<td>Microsoft Windows Server Administration (Semester 1)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 196</td>
<td>Microsoft Windows Network Administration (Semester 2)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 197</td>
<td>Microsoft Windows Network Infrastructure</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Associate in Science Degree in Computer Networking and System Administration

<table>
<thead>
<tr>
<th>General Education</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Core Courses</td>
<td>25</td>
</tr>
<tr>
<td>ENGL 1A/1AMC is required and may be used to meet the Area A: Communication and Critical Thinking requirement for General Education, specifically A1: Composition. Either COMM 2 or COMM 10 is required and may be used to meet the A2: Critical Thinking requirement for General Education. Completion of one or more of the Skills Certificates and Approved Electives equaling</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total for A.S. Degree in Computer Networking and System Administration</strong></td>
<td>60</td>
</tr>
</tbody>
</table>
Certificate of Proficiency

Core Courses .................................................. 25
COMM 2 or COMM 10 ........................................ 3
ENGL 1A/1AMC ................................................. 3
Total for Certificate of Proficiency 31

COMPUTER NETWORKING AND SYSTEM ADMINISTRATION SKILLS CERTIFICATES

Skills Certificate: Cisco Certified Network Associate (CCNA)
Preparation for taking the Cisco Certified Network Associate exam
CIS 81 Networking Fundamentals and Theory
     (Cisco CCNA 1) .............................................. 4
CIS 82 Introduction to Routing Technologies and Theory (Cisco CCNA 2) ............... 4
CIS 83 Switched Networks and WANs, Technologies and Theory (Cisco CCNA 3 & 4) .............. 4
Total for Skills Certificate 12

Skills Certificate: Cisco Certified Network Professional (CCNP)
Preparation for taking the Cisco Certified Network Professional exam
CIS 85 Advanced Routing
     (Cisco CCNP 1) .............................................. 4
CIS 86 Implementing Secure Converged WANs (Cisco CCNP 2) ............................. 4
CIS 87 Multilayer Switched Networks (Cisco CCNP 3) ....................................... 4
CIS 88 Optimizing Converged Cisco Networks (Cisco CCNP 4) ............................. 4
Total for Skills Certificate 16

Skills Certificate: Microsoft System Administration
Preparation for taking the Microsoft Certified Professional exams
CIS 81 Networking Fundamentals and Theory
     (Cisco CCNA 1) .............................................. 4
CIS 84 Microsoft Windows Administration .................................................. 3
CIS 95 Microsoft Windows Server Administration (Semester 1) ....................... 4
CIS 96 Microsoft Windows Network Administration (Semester 2) ....................... 4
Total for Skills Certificate 15

Skills Certificate: UNIX/Linux System Administration
CIS 90 Introduction to UNIX/Linux ............................................ 3
CIS 191A UNIX/Linux Installation, Configuration and Administration ................. 4
OR
CIS 191A UNIX/Linux Installation and Configuration .................................. 2
AND
CIS 191B UNIX/Linux System Administration ........................................ 2
CIS 192 UNIX/Linux Network Administration ......................................... 4
OR
CIS 192A UNIX/Linux TCP/IP Administration .................................. 2
AND
CIS 192B UNIX/Linux Network Services ........................................ 2
CIS 193 UNIX/Linux Security Administration ........................................ 4
OR
CIS 193A UNIX/Linux Host Security Basics ........................................ 2
AND
CIS 193B UNIX/Linux Network Security Basics ........................................ 2
Total for Skills Certificate 15

COMPUTER SUPPORT SPECIALIST
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Susan Nerton, Program Chair, (831) 479-6545
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
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Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Support Specialist Occupational Program

The Computer Support Specialist program is designed to help students acquire the knowledge and skills necessary to work in computer technical support positions and prepare for industry certification exams. Students will be able to provide technical support, troubleshooting, training and documentation to internal and external customers. Courses include computer hardware, operating systems, common software utilities, fundamentals of networking and help desk concepts. An Associate in Science Degree, a Certificate of Proficiency, and Skills Certificates are available in the areas of CompTIA A+ Preparation, and Computer Support Technician 1. The following courses are recommended for potential Computer Support Specialist majors early in their academic career to help determine their interest in pursuing the major: CS 1 and CS 1L, or CS 2.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 81</td>
<td>Networking Fundamentals and Theory (Cisco CCNA 1)</td>
</tr>
<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
</tr>
<tr>
<td>CIS 103</td>
<td>Technical Support and Troubleshooting</td>
</tr>
<tr>
<td>CIS 170</td>
<td>Introduction to Computer Hardware and Software</td>
</tr>
<tr>
<td>CIS 170 AB</td>
<td>A+ Certification Exam Prep</td>
</tr>
<tr>
<td>CIS 195</td>
<td>Microsoft Windows Server Administration</td>
</tr>
<tr>
<td>CIS 172</td>
<td>Introduction to Operating Systems</td>
</tr>
<tr>
<td>CIS 194</td>
<td>Microsoft Windows Client Administration</td>
</tr>
<tr>
<td>Total</td>
<td>24-26</td>
</tr>
</tbody>
</table>
Approved Electives

CIS 60A-ZZ  Special Topics in Computer and Information Systems ............. 1½-4
CIS 82  Introduction to Routing Technologies and Theory (Cisco CCNA 2) ............. 4
CIS 89  Data Communications .................. 3
CIS 99C  Career Work Experience Education ............. 1-4
CIS 101  Opportunities in Computer Technology ............. 1
CIS 130  UNIX/Linux Shell Programming ............. 4
CIS 131  Perl Programming in a UNIX Environment ............. 4
CIS 132  Introduction to Internet Programming ............. 4
CIS 140W  Fundamentals of Wireless LANs ............. 4
CIS 154  Introduction to Client/Server Relational Database Management Systems ............. 4
CIS 160A-ZZ  Special Topics in Computer and Information Systems ............. 1½-4
CIS 164  Introduction to Managing and Securing a Web Server ............. 3
CIS 165  Introduction to Programming Database-Driven Web Sites with ASP ............. 4
CIS 165J  Introduction to Programming Database-Driven Web Sites with Java ............. 4
CIS 165PH  Introduction to Programming Database-Driven Web Sites with PHP ............. 4
CIS 175  Fundamentals of Computer Security ............. 3
CIS 191AB  UNIX/Linux Installation, Configuration and Administration ............. 4
CIS 191A  UNIX/Linux Installation and Configuration ............. 2
CIS 191B  UNIX/Linux System Administration ............. 2
CIS 192  UNIX/Linux Network Administration ............. 4
CIS 192A  UNIX/Linux TCP/IP Administration ............. 2
CIS 192B  UNIX/Linux Network Services ............. 2
CIS 195  Microsoft Windows Server Administration (Semester 1) ............. 4
CIS 196  Microsoft Windows Network Administration (Semester 2) ............. 4
CS 2  Foundations of Computer Science ............. 4
CS 11  Introduction to Programming Concepts and Methodology, C++ ............. 4
CS 19  C++ Programming ............. 4
CS 12J  Introduction to Programming Concepts and Methodology, Java ............. 4
CS 20J  Java Programming ............. 4
CS 21  Introduction to Data Structures and Algorithms ............. 4
CS 23/MATH 23  Discrete Mathematics ............. 4
CS 24  Elementary Computer Organization ............. 4
CS 29  Object Oriented Programming ............. 4
DM 60A  Web Publishing I: (X)HTML and CSS Level 1 ............. 3
DM 70  Web Design Basics using Dreamweaver ............. 3
DM 101  Fundamentals of Macintosh Operating Systems ............. 3
DM 160B  Web Publishing 2: Graphic and CSS Level 2 ............. 3

Associate in Science Degree in Computer Support Specialist

General Education .............................................. 21
Core Courses .............................................. 24-26
ENGL 1A/1AMC is required and may be used to meet the Area A: Communication and Critical Thinking requirement for General Education, specifically A1: Composition. Either COMM 2 or COMM 10 is required and may be used to meet the A2: Critical Thinking requirement for General Education.
Completion of one or more of the Skills Certificates and Approved Electives equaling ............. 10-12
General Electives .............................................. 3
Total for A.S. Degree in Computer Support Specialist ............. 60

Certificate of Proficiency: CSS Fundamentals

Core Courses .............................................. 24-26
COMM 2 or COMM 10 .............................................. 3
ENGL 1A/1AMC .............................................. 3
Total for Certificate of Proficiency .............................................. 30-32

Computer Support Specialist Skills Certificates

All skills certificates assume the successful completion of CS 1 and CS 1L, or CS 2, or equivalent skills.

Skills Certificate: A+ Preparation

Preparation for taking the A+ Exam
CIS 170  Introduction to Computer Hardware and Software ............. 4
CIS 170AB  A+ Certification Exam Preparation ............. 2
OR
CIS 195  Microsoft Windows Server Administration (Semester 1) ............. 4
CIS 172  Introduction to Operating Systems ............. 4
CIS 194  Microsoft Windows Client Administration ............. 3
Total for Skills Certificate .............................................. 13-15

Skills Certificate: Computer Support Technician 1

CIS 90  Introduction to UNIX/Linux ............. 3
OR
CIS 172  Introduction to Operating Systems ............. 4
CIS 103  Technical Support & Troubleshooting ............. 4
CIS 170  Introduction to Computer Hardware and Software ............. 4
CIS 194  Microsoft Windows Client Administration ............. 3
COMM 6  Listening ............. 1
Total for Skills Certificate .............................................. 15-16
Computer and Information Systems Courses

CIS 10
Programming in Visual Basic.NET
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 1L or CIS 172 or equivalent knowledge of file management.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An introduction to the design and development of object-oriented, event-driven GUI (graphical user interface) software applications using Microsoft Visual Basic.NET
Transfer Credit: Transfers to CSU.

CIS 60A-ZZ
Special Topics in Computer and Information Systems
½ - 4 units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any particular topic may be taken a total of 4 times.

Investigates special selected areas of interest in computer and information systems not covered by regular catalog offerings. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.
Transfer Credit: Transfers to CSU.

CIS 81
Networking Fundamentals and Theory (Cisco CCNA 1)
4 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: CIS 172 or concurrent enrollment, or familiarity with using a command line interface such as Unix/Linux or DOS, file management, a general understanding of the function of operating systems and familiarity with using the Windows operating system. MATH 254 or equivalent knowledge.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents networking protocols, standards, concepts, and terminology including Ethernet, ARP, ICMP, IP addressing, subnetting, switches, hubs, routers, TCP, UDP, OSI Model and other standards and protocols. First course in the Cisco Networking Academy CCNA curriculum which is a prerequisite for some of the MCSE/MCSA and Linux certification courses. Additional information on networking theory and protocols beyond that of the basic Cisco Networking Academy Semester 1 course, leading to a more detailed understanding of networking.
Transfer Credit: Transfers to CSU.

CIS 82
Introduction to Routing Technologies and Theory (Cisco CCNA 2)
4 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: CIS 81.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces routing technology, routing theory and router configuration including static routes, distance vector and link state routing theory, routing loop issues, VLSM, CIDR, and routing protocols such as RIPv1, RIPv2, EIGRP and Single Area OSPF. Second of four courses in the Cisco Networking Academy CCNA curriculum. Provides hands-on experience configuring Cisco routers, additional information on routing theory and protocols beyond that of the basic Cisco Networking Academy Semester 2 course, leading to a more detailed understanding of routing. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 83
Switched Networks and WANs (Cisco CCNA 3 & 4)
4 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: CIS 81.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents intermediate features of switching and WANs including VLANs, VTP, Inter-VLAN routing, STP, Frame Relay, HDLC, PPP, and ACLs. Combines semesters three and four of the Cisco Networking Academy CCNA curriculum. Hands-on experience using Cisco routers and also provides additional information on routing theory and protocols beyond that of the basic Cisco Networking Academy Semester 3 and 4 courses, leading to a more detailed understanding of routing, switching and Wide Area Networks. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 89
Data Communications
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 81.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents data communication industry standards and technologies including analog and digital signaling, encoding, multiplexing, error detection and correction, circuit and packet switched networks, data link protocols, voice and digital, communications, service providers and emerging technologies. Studies the telecommunications industry, including a look at current and emerging standards and technologies. Covers national and international organizations and mechanisms for creating telecommunications standards using the OSI model and TCP/IP Internet standards.
Transfer Credit: Transfers to CSU.
CIS 90
Introduction to UNIX/Linux
3 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: CS 1L or CIS 172; Eligibility for ENGL 100 and READ 100.

Provides a technical overview of the UNIX/Linux operating system, including hands-on experience with commands, files, and tools. Topics include basic UNIX/Linux commands, files and directories, text editing, electronic mail, pipes and filters, X Windows, shell environments and scripting. Required for students wishing to pursue the UNIX/Linux track leading to industry certification. Transfer Credit: Transfers to CSU.

CIS 101
Opportunities in Information Technology
1 unit; ½ hour Lecture, 3 hours Laboratory
Recommended Preparation: CS 1 (may be taken concurrently); Eligibility for ENGL 100 and READ 100.

Presents a self-paced course covering career and educational requirements of the information technology industry. Completion of this course prepares students to enter the Computer Information Systems certificate programs as well as the Computer Networking and System Administration programs. Students will attend one orientation meeting and one evaluation meeting.

CIS 103
Technical Support & Troubleshooting
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CIS 170 and CIS 172, or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches technical support skills for those seeking employment in the computer and information systems field. Topics include training in the various means of delivering technical support and tools for gathering, organizing and disseminating technical information, and help desk organization. Prepares students to provide technical assistance and training to computer users. May be offered in a Distance-Learning Format.

CIS 131
Perl Programming in a Unix Environment
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 11 or CS 12J or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An introduction to Perl programming in a Unix environment. Topics covered include the GNU Emacs text editor, variables, arrays, lists, control structures, basic input and output, regular expressions, text manipulation, functions and file access. May be offered in a Distance-Learning Format.

CIS 132
Introduction to Internet Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: MATH 154 and DM 160; Eligibility for ENGL 100 and READ 100.

Presents an introduction to Internet-related programming using client-side scripting languages like JavaScript and server-side scripting languages like PHP. Covers basic programming techniques including simple data types, control structures, functions and expressions. Topics include Web-based data collection, form verification, database connectivity and XML. Previous experience with HTML and some programming knowledge is assumed.

CIS 140W
Fundamentals of Wireless LANs
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CIS 81.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Covers the design, planning, implementing, operating and troubleshooting of Wireless LANs, including setup, 802.11(a, b, g) technologies, radio technologies, WLAN applications, WLAN security, vendor interoperability strategy and emerging wireless technologies.

CIS 152
Access Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: CIS 151, or equivalent knowledge and skills in using Access for Windows database management software in interactive (non-programmed) mode; Eligibility for ENGL 100 and READ 100.

An introduction to programming and database application development within Access for Windows.
CIS 154
Introduction to Client/Server Relational Database Management Systems
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: CIS 151; Eligibility for ENGL 100 and READ 100.
Installation, use, and administration of MySQL Client/Server Relational Database Management System, including the design, creation, and administration of enterprise databases, along with performance tuning, security and disaster recovery. Additional topics include: SQL (Structured Query Language), data types, functions, and normalization. A brief introduction to server-level programming and language interfaces for developing database-driven web sites, with an emphasis on PHP. Previous experience in desktop or other database software is strongly advised. May be offered in a Distance-Learning Format.

CIS 156B
Oracle PL/SQL Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: CIS 156A or equivalent; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Provides students with necessary knowledge and skills to program in Oracle PL/SQL. Main topics: PL/SQL blocks and processing, procedures, functions, packages, unit dependencies, and performance tuning. The course is mapped to the Oracle Certification Program Exam #1Z0-101, which is applicable toward Oracle9i Certified Professional Internet Application Developer certification.

CIS 160A-ZZ
Special Topics in Computer and Information Systems
½ - 4 units; ½ hour Lecture OR 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any particular topic may be taken a total of 4 times.
Designed to investigate special selected areas of interest in Computer and Information Systems not covered by regular catalog offerings. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.

CIS 164
Introduction to Managing and Securing a Web Server
3 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: CS 1 or equivalent; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Install, configure, manage, and secure the most widely used web server in the world, Apache. Topics include: web-server basics, installation, configuration, server-side programming, log files, robots, network security, web-server security, CGI security, web-client security and secure online transactions. May be offered in a Distance-Learning Format.

CIS 165
Introduction to Programming Database-Driven Web Sites With ASP
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: DM 160 or experience in the use of basic HTML; CIS 10 or CS 11 or CS 12J or equivalent.
Recommended Preparation: CIS 151; Eligibility for ENGL 100 and READ 100.
Teaches programming for a database-driven web-based application, such as found on eCommerce web sites, which require high degrees of user/web-site interaction and online data storage and retrieval. The web programming environment used is ASP/ADO using an Access database. May be offered in a Distance-Learning Format.

CIS 165J
Introduction to Programming Database-Driven Web Sites With Java
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 12J or the equivalent.
Recommended Preparation: DM 160 or experience in the use of basic HTML; Eligibility for ENGL 100 and READ 100.
Programming database-driven, web-based application (such as an eCommerce web site) that require online data storage and retrieval and a high degree of user/web site interaction. The web programming environment used is Java accessing a MySQL database. May be offered in a Distance-Learning Format.

CIS 165PH
Introduction to Programming Database-Driven Web Sites With PHP
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: DM 160 or experience in the use of basic HTML; CIS 10 or CS 11 or CS 12J (may be taken concurrently) or the equivalent.
Recommended Preparation: CABT 142; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers the programming of database-driven, web-based applications (such as an eCommerce web site) that require online data storage and retrieval and a high degree of user/web site interactivity. The web programming environment used is PHP accessing a MySQL database. May be offered in a Distance-Learning Format.

CIS 170AB
A+ Certification Exam Preparation
2 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: CIS 170 and CIS 172, or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Covers preparation for both the A+ Core Hardware examination and the A+ Operating System Technologies examination. May be offered in a Distance-Learning Format.
CIS 170
Introduction to Computer Hardware and Software
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CS 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers installing, maintaining, and upgrading PC-type (Intel and Intel compatible) microcomputer systems. The course covers the underlying technology and methodology for performing these operations. This course introduces networking, PC hardware and software installation, maintenance, safety, troubleshooting, and provides an in-depth exposure to personal computer hardware and desktop operating systems. Prepares students to pass the CompTIA A+ industry certification.

CIS 172
Introduction to Operating Systems
4 units; 4 hours Lecture, 4 hours Laboratory
Recommended Preparation: CS 1 and CS 1L or equivalent; Eligibility for ENGL 100 and READ 100.
Provides overview of computer operating systems such as Unix/Linux, Microsoft Windows Operating Systems, and DOS. Topics include operating system theory, system requirements, file system management, network system integration, security, regular maintenance procedures, and an introduction to emergent technologies, their language and features, through lecture and hands-on lab.

CIS 175
Fundamentals of Computer Security
3 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CIS 172.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the student to the threats, vulnerabilities and controls of computer systems, and helps to prepare for security-related industry certifications such as CompTIA Security+. Topics will include encryption, authentication, authorization, coding practices, and implementing security systems, as well as the legal and ethical issues associated with the use of computers. Treats security not simply as a product to be installed, but as a way of thinking about all aspects of an organization’s security needs.

CIS 181A
Networking Fundamentals (Cisco CCNA 1)
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This is the first course in the Cisco Networking Academy CCNA curriculum, and is a prerequisite for some of the MCSE/MCSA and SAIR Linux certification courses. It introduces networking standards, concepts, topology, media and terminology including LANs, WANs, the OSI model, cabling, IP addressing, network hardware and various protocols. This course is equivalent to the CCNA 1 course taught in Cisco Networking Academies.

CIS 182A
Introduction to Routing Technologies (Cisco CCNA 2)
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 181A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The second of four courses in the Cisco Networking Academy curriculum. An introduction to router and routing concepts and terminology including RIP and IGRP routing protocols, distance vector and link state routing, routing loop issues, routing theory, TCP/IP basics, IP addressing, router MUS, and basic router configuration. Hands-on experience configuring Cisco routers. Equivalent to the CCNA 2 course taught in Cisco Networking Academies.

CIS 183A
Intermediate Routing and Switching (Cisco CCNA 3 & 4)
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 182A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
This course combines semester three and four of the Cisco Networking Academy CCNA curriculum. This course covers the intermediate features of routers and routing concepts including the RIPv2, Single Area OSPF, EIGRP, VLSM, CIDR, LAN segmentation using bridges and switches, network congestion issues, cut-through and store-and-forward switches, VLANs, VTP, Inter-VLAN routing, and the operation of the Spanning Tree protocol. It also covers the various Wide Area Network services including Frame Relay, ISDN, HDLC, PPP, DDR, Frame Relay LMI, Frame Relay maps and Frame Relay subinterfaces. This class includes hands-on experience using Cisco routers. This course is equivalent to the CCNA 3 and CCNA 4 courses taught in Cisco Networking Academies.

CIS 185
Advanced Routing (Cisco CCNP 1)
4 units; 4 hours Lecture, 8 hours Laboratory
Prerequisite: CIS 83 or passing the CCNA exam.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Provides information on scalable technologies for building large and growing internetworks, including scalable routing protocols such as OSPF, EIGRP, IS-IS, and BGP, using VLSM, CIDR, and route optimization. This course is one of four Cisco CCNP (Cisco Certified Networking Professional) courses and prepares students for the CCNP Advanced Routing exam. This course includes both lectures and labs.
CIS 186
Implementing Secure Converged WANs (Cisco CCNP 2)
4 units; 4 hours Lecture, 8 hours Laboratory
Prerequisite: CIS 83 or passing the CCNA exam.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Teaches advanced skills required to secure and enhance services in enterprise networks for teleworkers and remote sites. Topics include cable modems and Digital Subscriber Line (DSL) with Network Address Translation (NAT), Multi Protocol Label Switching (MPLS) virtual private networks (VPNs), and network security using VPNs with IPsec encryption and Internet Key Exchange (IKE) keys, Cisco IOS Firewall Feature set, Intrusion Prevention System (IPS), and Authentication, Authorization, and Accounting (AAA). This is one of four Cisco CCNP (Cisco Certified Networking Professional) courses and prepares students for the CCNP Remote Access exam. Includes both lectures and labs. May be offered in a Distance-Learning Format.

CIS 187
Multilayer Switched Networks (Cisco CCNP 3)
4 units; 4 hours Lecture, 8 hours Laboratory
Prerequisite: CIS 83 or passing the CCNA exam.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Focuses on the techniques and technologies required to build campus networks using multilayer switching technologies over high speed Ethernet. Includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. One of the four courses in the CCNP (Cisco Certified Network Professional) certification curriculum. Topics: LAN design, media types, VLANs, VLAN Trunking Protocol, ISL, 802.1Q, Spanning Tree, Inter-VLAN routing, Multilayer Switching, Flow Masks, HSRP, Multicasting, IGMP, and CGMP. Designed to help prepare students for the CCNP Switching exam.

CIS 188
Optimizing Converged Cisco Networks (Cisco CCNP 4)
4 units; 4 hours Lecture, 8 hours Laboratory
Prerequisite: CIS 83 or passing of CCNA exam or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Teaches skills required to optimize Quality of Service (QoS) in converged networks supporting voice, wireless, and security applications. Topics include VoIP network essentials and related challenges, concepts and implementation methods for QoS, evolution of wireless LAN (WLAN) and wireless security standards, and case studies based on the Cisco Integrated Services Routers (ISR) related to the converged network topics. One of four Cisco CCNP (Cisco Certified Networking Professional) courses. Prepares students for the CCNP Cisco Optimizing Converged Cisco Networks exam. May be offered in Distance-Learning Format.

CIS 191A
UNIX/Linux Installation and Configuration
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 90 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches the installation and configuration of the Linux operating system on a personal computer for use as a workstation or server. Topics include the structure of the UNIX operating system, disk and file system organization, system startup and shutdown, the X Window system, software installation, and troubleshooting issues. To demonstrate these skills, students will build their own custom Linux distribution. This is the first of two courses that prepares the student for industry certification as a UNIX/Linux System Administrator.

CIS 191B
UNIX/Linux System Administration
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 90 or equivalent.
Recommended Preparation: CIS 191A; Eligibility for ENGL 100 and READ 100.
Teaches the administration, monitoring, and troubleshooting of a running Linux system in a small-to-medium sized business environment. Topics include user and group management, configuring peripheral devices, file system maintenance, kernel resources, system monitoring and logging, system backup and emergency recovery procedures. This is the second of two courses that prepares the student for industry certification as a UNIX/Linux System Administrator.

CIS 191AB
UNIX/Linux Installation, Configuration and Administration
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CIS 90.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces skills required to administer UNIX/Linux systems. Skills include installing and configuring a popular distribution, such as RedHat Linux, maintaining file and file system structures, distributing and monitoring processes, starting and stopping the system for routine maintenance and troubleshooting, rebuilding and upgrading the kernel, configuring peripheral devices such as printers and modems, backing up and restoring files, and disaster recovery. Develops skills through using both graphical and command line user interfaces, and will be demonstrated by building a custom version of Linux. Prepares students for several industry standard UNIX/Linux certifications.

CIS 192
UNIX/Linux Network Administration
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CIS 81 and CIS 90 or equivalent.
Recommended Preparation: CIS 191AB; Eligibility for ENGL 100 and READ 100.
Build and monitor network infrastructures, and install, configure, and protect services on Linux TCP/IP networks. Topics include the TCP/IP model, DHCP, DNS, NFS, SAMBA, FTP, HTTP, firewalls and various WAN technologies such as PPP and Virtual Private Networks. Readies students for Linux network administration through preparation for industry certification.
CIS 192A
UNIX/Linux TCP/IP Administration
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 81 and CIS 90.
Recommended Preparation: CIS 191; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. This course may be repeated when offered using the ipv6 protocol standard.

Build, monitor and troubleshoot a UNIX/Linux network infrastructure. Configure arp caches, subnets, routing tables, IP addresses, and firewalls to establish a variety of network topologies. Use network monitors and sniffers to analyze protocols and packet headers at the various network layers. Use such protocols as ARP, ICMP, IP, TCP, UDP, FTP, and SSH along with network utilities to troubleshoot and secure networks. This course focuses on version four (ipv4) of the Internet protocol, and prepares the student for courses in network security.

CIS 192B
UNIX/Linux Network Services
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 192A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. This course may be repeated as the content changes with different client-server applications being studied.

Install, configure, and manage services on UNIX/Linux TCP/IP networks. Install client-server network applications on multi-segmented, routable networks. Configure and manage these services by editing text files from the command line as well as using graphical configuration tools. Services may include DHCP, DNS, NIS, NFS, SAMBA, FTP, HTTP, and various WAN technologies such as PPP and Virtual Private Networks.

CIS 193
UNIX/Linux Security Administration
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CIS 192 or equivalent.
Recommended Preparation: CIS 175; Eligibility for ENGL 100 and READ 100.

Prepares students to perform the tasks and examine the strategies of UNIX/Linux security management, including an overview of network attack vulnerabilities, system-monitoring utilities, and tools to secure files, servers, and networks. Students will develop skills in managing firewalls, performing security audits, and detecting intrusions. Prepares the student for industry level certification in the area of Linux system security.

CIS 193A
UNIX/Linux Host Security Basics
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 191AB or CIS 191B.
Recommended Preparation: CIS 175; Eligibility for ENGL 100 and READ 100.

Secure a UNIX/Linux computer system using operating system security mechanisms as well as a variety of auditing, attack, and defense tools. Topics include host-based intrusion detection, password cracking, monitoring, access controls, file encryption, resource management, software threats, and disaster recovery.

CIS 193B
UNIX/Linux Network Security Basics
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 192.
Recommended Preparation: CIS 175; Eligibility for ENGL 100 and READ 100.

Defend a UNIX/Linux network environment using network sniffers, intrusion detection and firewall technologies. Topics include basic network traffic filtering and analysis, denial of service attacks, honeypots, authentication, encryption, VPNs and the securing of network services.

CIS 194
Microsoft Windows Client Administration
3 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: CIS 172 or equivalent skills; Eligibility for ENGL 100 and READ 100.

Install, configure, and administer Microsoft Windows client operating systems. Includes using administrative tools to create user and group accounts, configure local policy, access shared resources on a network as well as how to manage disk space, user profiles, printers and hardware devices. Learn how client systems operate within peer-to-peer networks as well as how clients can join and operate within a domain network environment. This is the entry level course for students wishing to obtain a Cabrillo Skill Certificate or to pass one of the exams required for both MCSA and MCSE certifications. Please see Cabrillo website for more information. May be offered in a Distance-Learning Format.

CIS 195
Microsoft Windows Server Administration
(Semester 1)
4 units; 4 hours Lecture, 4 hours Laboratory
Recommended Preparation: CIS 172 and CIS 194 (may be taken concurrently); Eligibility for ENGL 100 and READ 100.

Install, configure, and administer the Microsoft Windows Server operating system. Building on the features of the client operating system, this course adds the configuration and administration of the following services: installation and deployment services, distributed file systems, print services, user profiles and desktops, Group Policy, and Active Directory. Learn how to join a standalone server to a domain and how to promote a member server to a domain controller. Work in both peer-to-peer and domain networked environments, and will develop troubleshooting and problem solving skills required of system administrators. Prepares the student for exams in the MCSA and MCSE certification tracks. May be offered in a Distance-Learning Format.
CIS 196
Microsoft Windows Network Administration
(Semester 2)
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CIS 81, CIS 195, or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Implement, manage and troubleshoot existing Microsoft network environments. Covers network issues in a peer-to-peer environment as well as a domain environment with Active Directory. Configure, and troubleshoot the network infrastructure utilizing TCP/IP protocols, DHCP, DNS, WINS, and Routing and Remote Access Services; they will manage, secure, and troubleshoot Web, FTP, Certificate, and Terminal services and clients. Building upon the operating system features learned in CIS 194 and CIS 195, use those skills to troubleshoot and problem solve networking issues, and secure network resources. Prepares the student for one of the exams required for MCSA certification. May be offered in a Distance-Learning Format.

CIS 197
Microsoft Windows Network Infrastructure
3 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CIS 81 or equivalent.
Recommended Preparation: CIS 194; Eligibility for ENGL 100 and READ 100.
This course teaches students how to manage and support a network infrastructure that uses Microsoft Windows Server products. It includes the major network protocols supported by Microsoft Windows, and covers such features as TCP/IP, WINS, DHCP, and DNS. Students will also learn how to monitor network activity. The course focuses heavily on configuring, managing, and troubleshooting routing and remote access, setting up virtual private networks (VPNs), network address translation (NAT), and Certificate Services. The concepts explored in this course are relevant to all network systems, but are applied to the Microsoft environment. This course prepares the student for exams required for MCSE and MCSA certification.

COMPUTER SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Susan Nerton, Program Chair, (831) 479-6545
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Information for Computer Science Majors

The Computer Science program is intended to meet the needs of students majoring in computer science, and students from other science disciplines where computer programming is required. These disciplines include computer engineering, networking and system administration, business, bioinformatics, information systems management, economics, business and information systems, engineering, and engineering technology.

The Computer Science Program offers two degree programs, four certificates of proficiency, and two skills certificates. Both the A.S./A.A. Degree programs transfer to four-year colleges and universities. Note: UC will accept a total of 6 courses from Computer Science.

One of the following courses is recommended for all potential computer science/computer engineering majors early in their academic career to help determine their interest in pursuing the major: CS 1 or CS 2 or CS 11 (C++), or CS 12J (Java).

MODEL PROGRAM FOR COMPUTER SCIENCE

The following model program fulfills requirements for the A.A/A.S. Degree in Computer Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Computer Science Majors

Core courses for all transfer students

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
</tr>
<tr>
<td>*CS 21</td>
<td>Introduction to Data Structures and Algorithms</td>
</tr>
<tr>
<td>*CS 23/MATH 23</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>MATH 5AB</td>
<td>Analytical Geometry and Calculus I, II</td>
</tr>
</tbody>
</table>

The following core courses are required for transfer for most computer science majors and transfer universities.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>*CS 24</td>
<td>Elementary Computer Organization</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>Analytic Geometry and Calculus III</td>
</tr>
<tr>
<td>*MATH 6</td>
<td>Introduction to Linear Algebra</td>
</tr>
<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
</tr>
<tr>
<td>CHEM 1AB</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>PHYS 4A, **PHYS 4B, *PHYS 4C</td>
<td>Physics for Scientists and Engineers</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>BIO 1A</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>AND</td>
<td></td>
</tr>
<tr>
<td>BIO 1B</td>
<td>Animal Diversity and Evolutionary Principles</td>
</tr>
<tr>
<td>*Spring only; **Fall only</td>
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</tr>
</tbody>
</table>

Associate in Arts Degree in Computer Science

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
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<tr>
<td>Core Courses</td>
<td>30</td>
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<td>Total for A.A. Degree in Computer Science</td>
<td>60</td>
</tr>
</tbody>
</table>

Associate in Science Degree in Computer Science

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>21</td>
</tr>
<tr>
<td>Core Courses</td>
<td>39</td>
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<tr>
<td>Total for A.S. Degree in Computer Science</td>
<td>60</td>
</tr>
</tbody>
</table>
### Core courses for all transfer students

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>MATH 5ABC</td>
<td>Analytic Geometry and Calculus I, II, III</td>
<td>12</td>
</tr>
<tr>
<td>*MATH 6</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**PHYS 4B</td>
<td>Physics for Scientists and Engineers</td>
<td>10</td>
</tr>
</tbody>
</table>

The following core courses are required for transfer for most computer engineering majors and transfer universities:

- *CS 21 Introduction to Data Structures and Algorithms       | 4
- *CS 23/MATH 23 Discrete Mathematics                        | 4
- **CS 24 Elementary Computer Organization                  | 4
- *PHYS 4C Physics for Scientists and Engineers              | 5
- CHEM 1B General Chemistry                                  | 5
- OR                                                          |       |
- BIO 1A Cell and Molecular Biology                           | 5
- AND                                                         |       |
- BIO 1B Animal Diversity and Evolutionary Principles        | 5

### Certificate of Proficiency: C++ Programming

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CS 1</td>
<td>Introduction to Computers and Computer Technology</td>
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<td>AND</td>
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</tr>
<tr>
<td>CS 1L</td>
<td>Lab: Introduction to Computers and Computer Technology</td>
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<tr>
<td>OR</td>
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<td></td>
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<tr>
<td>CS 2</td>
<td>Foundations of Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CS 11</td>
<td>Introduction to Programming Concepts and Methodology, C++</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 132</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>MATH 154</td>
<td>Elementary Algebra</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
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<td></td>
</tr>
<tr>
<td>MATH 4</td>
<td>Pre-Calculus and Trigonometry</td>
<td>5</td>
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<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
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<tr>
<td>OR</td>
<td></td>
<td></td>
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<tr>
<td>COMM 10</td>
<td>Communication Process</td>
<td>3</td>
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<tr>
<td>ENGL 1A/1AMC</td>
<td>College Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Total for Certificate of Proficiency 22-24

### Certificate of Proficiency: Java Programming

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1</td>
<td>Introduction to Computers and Computer Technology</td>
<td>3</td>
</tr>
<tr>
<td>AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 1L</td>
<td>Lab: Introduction to Computers and Computer Technology</td>
<td>2</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 2</td>
<td>Foundations of Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CS 12J</td>
<td>Introduction to Programming Concepts and Methodology, Java</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 132</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>MATH 154</td>
<td>Elementary Algebra</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 4</td>
<td>Pre-Calculus and Trigonometry</td>
<td>5</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMM 10</td>
<td>Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A/1AMC</td>
<td>College Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Total for Certificate of Proficiency 34

### Certificate of Proficiency: Programming

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>*CS 21</td>
<td>Introduction to Data Structures and Algorithms</td>
<td>4</td>
</tr>
<tr>
<td>*CS 23/MATH 23</td>
<td>Discrete Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>**CS 24</td>
<td>Elementary Computer Organization</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1B General Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 1A Cell and Molecular Biology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 1B Animal Diversity and Evolutionary Principles</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>AND any two of the following four CS/CIS courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 29</td>
<td>Object Oriented Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 130</td>
<td>UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 131</td>
<td>Perl Programming in a Unix Environment</td>
<td>4</td>
</tr>
<tr>
<td>CIS 132</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>PLUS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
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<tr>
<td>COMM 10</td>
<td>Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A/1AMC</td>
<td>College Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Total for Certificate of Proficiency 34
Computer Science Courses

**CS 1**

*Introduction to Computers and Computer Technology*

3 units; 3 hours Lecture, 3 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys the fields of study within computer science and computer technology with a focus on computer literacy in the 21st century. Topics covered include: hardware, software, development systems, the Internet, and networks, including PC and Macintosh. Students interested in a hands-on lab course to coincide with this class may enroll in CS 1L.

*Transfer Credit:* Transfers to CSU. Transfers to UC: Students are advised to take CS 1 + CS 1L to receive credit in the Computer Science major at some UC campuses. CAN CS1+1L=CSCI2.

**CS 1L**

*Lab: Introduction to Computers and Computer Technology*

2 units; 2 hours Lecture, 2 hours Laboratory

Recommended Preparation: CS 1 (may be taken concurrently) and CABT 106, or previous Cabrillo computer course or equivalent; Eligibility for ENGL 100 and READ 100.

Covers the fundamentals of information literacy and computer proficiency including the computer aided research process and essential skills in using operating systems, word processing, spreadsheets, e-mail, image manipulation, and presentation software. Instruction is conducted in a computer demonstration lab. Students may complete lab assignments in the Cabrillo Technology Center, or at home if necessary software is available.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN CS1+1L=CSCI2.

**CS 2**

*Foundations of Computer Science*

4 units; 3 hours Lecture, 6 hours Laboratory

Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Presents introductory computer architecture for computer science, engineering, networking or programming majors. Topics include successful innovations and limitations of computers, binary and hexadecimal number systems, high-precision arithmetic, digital logic gates and structures, opcodes, addressing modes, instruction set architectures, microarchitectures, devices, and beginning programming. Portions of this course may be offered in a Distance-Learning Format.

*Transfer Credit:* Transfers to CSU.
CS 11  
Introduction to Programming Concepts and Methodology, C++
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: CS 1 or CS 2; MATH 154; Eligibility for ENGL 100 and READ 100.

Presents an introduction to computer programming using the C++ language including procedural and object-oriented design methodology along with computer mathematics. Topics include algorithmic and object-oriented decomposition, declarations, expressions, functions, selection and looping statements, recursion, simple data types, elementary sorting and searching algorithms, libraries, arrays, pointers, classes, objects, and templates. This course prepares students for CS 19.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN CSCI22.

CS 12GP  
Game Programming in Java
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 11 or CS 12J or equivalent knowledge.
Recommended Preparation: CS 20J or equivalent knowledge; Eligibility for ENGL 100 and READ 100.

Introduces game programming using the Java programming language. Explores the algorithms, data structures and techniques for producing 2D interactive computer games. Topics include: 2D graphics, animation, sprites, sound, rule systems, and artificial intelligence in the creation of interactive games.

Transfer Credit: Transfers to CSU. Transfers to UC.

CS 12J  
Introduction to Programming Concepts and Methodology, Java
4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: CS 1 or CS 2; MATH 154; Eligibility for ENGL 100 and READ 100.

Presents an introduction to computer programming using the Java programming language beginning with basic principles and progressing to object-oriented programs, including visual programming. Topics include: algorithms, data types, declarations, expressions, selection, repetition, methods, recursion, libraries, arrays, classes, objects, components, events, files and streams. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC.

CS 19  
C++ Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 4.
Recommended Preparation: CS 11 or equivalent; Eligibility for ENGL 100 and READ 100.

Programming, documentation, and software design methodologies using C++. It is assumed that students have been introduced to classes and objects, control structures, repetition, functions, and logical operators. There will be a brief review of functions, arrays, pointers and strings. New topics include classes, operator overloading, and inheritance. Previous programming experience strongly recommended. Students will be required to show that they meet the course prerequisites. This course prepares students for CS 21 and CS 23.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN CSCI16.

CS 20J  
Java Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 4.
Recommended Preparation: CS 12J or equivalent; Eligibility for ENGL 100 and READ 100.

Learn programming, documentation, and software-design methodologies using Java. Starting with a brief review of control structures, methods and arrays, students rapidly progress to object-oriented programs of moderate complexity. The more advanced topics include: inheritance, polymorphism, exceptions, graphics, graphical-user interfaces, files, streams, threads and dynamic data structures. This course prepares students for CS 21 and CS 24. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC.

CS 21  
Introduction to Data Structures and Algorithms
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 19 or CS 20J; MATH 5A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides an introduction to data structures, algorithms, and software engineering techniques using the C++ or Java language. Presents the development of large programs including definition, implementation, analysis, use and reuse of abstract data types and associated algorithms. Reviews and elaborates arrays, lists, queues, stacks, sets, trees, priority queues, heaps, tables, hashing, balanced trees, graphs, recursion, searching and sorting. Offered spring only.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN CSCI24.
CS 23
Discrete Mathematics
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 5A or equivalent.
Recommended Preparation: CS 19 or CS 20J or equivalent; Eligibility for ENGL 100 and READ 100.

Presents discrete mathematical systems including methods of proof that shape the foundations of computer science. Includes set and number theory, Boolean Algebra, deductive and inductive proof, logic, equivalence, order, and recurrence relations, combinatorics, graph and network models, circuits and circuit minimization techniques, automata and grammars. Math majors should enroll in MATH 23 (identical to CS 23). Offered spring only.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CSCI26.

CS 24
Elementary Computer Organization
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 19 or CS 20J or equivalent; MATH 5A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces organization of computer systems, machine level programming and systems software. Includes processor organization, introduction to operating systems and assembly language programming on microprocessors. Offered fall only.
Transfer Credit: Transfers to CSU. Transfers to UC.

CS 29
Object Oriented Programming
4 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CS 21 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Effective object oriented programming using the Java or C++ programming language. Presents additional material on types, classes, methods, constructors, objects, inheritance, templates, data streams, error management, and design.
Transfer Credit: Transfers to CSU. Transfers to UC.

CONSTRUCTION AND ENERGY MANAGEMENT

Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Chuck Mornard, Program Chair, (831) 479-6235
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Construction and Energy Management Occupational Program

The Construction and Energy Management program provides education in the areas of Management, Inspections and Skills (hands-on) training. Students will find employment in the broad spectrum of opportunities available in the construction industry. The program also provides continuing education, degrees, and certificates for those already employed as contractors, owner/builders, inspectors, managers, supervisors, estimators, planners and schedulers, support staff, craft workers and other areas related to construction.

Note: We strongly recommend CS 1 (Introduction to Computers and Computer Technology) and CS 1L (Lab: Introduction to Computers and Computer Technology) for all students enrolling in computer-based Construction and Energy Management courses. Please refer to the Cabrillo College Catalog descriptions of these courses to determine if you possess equivalent knowledge.

CONSTRUCTION AND ENERGY MANAGEMENT STUDIES

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
<td>1</td>
</tr>
<tr>
<td>CEM 154</td>
<td>Construction Estimating</td>
<td>4</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CEM 157</td>
<td>Construction Law</td>
<td>3</td>
</tr>
<tr>
<td>CEM 159</td>
<td>Construction Planning and Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>CEM 160</td>
<td>Construction Management</td>
<td>4</td>
</tr>
<tr>
<td>CEM 161</td>
<td>Construction Business and Related Topics</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Core Courses 25

Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CEM 154A</td>
<td>Estimating for Construction Professionals</td>
<td>1</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>CEM 163</td>
<td>Fundamentals of Renewable Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td>CEM 164R</td>
<td>Building Fundamentals of the International Residential Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 165R</td>
<td>Electrical, Mechanical, and Plumbing Fundamentals of IRC</td>
<td>3</td>
</tr>
<tr>
<td>CEM 166</td>
<td>Fundamentals of the International Building Code I</td>
<td>3</td>
</tr>
<tr>
<td>CEM 167</td>
<td>Fundamentals of the International Building Code II</td>
<td>3</td>
</tr>
<tr>
<td>CEM 168</td>
<td>Fundamentals of the Uniform Plumbing Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 169</td>
<td>Fundamentals of the Uniform Mechanical Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 170</td>
<td>Foundation Layout</td>
<td>3</td>
</tr>
<tr>
<td>CEM 175A</td>
<td>Electrical Code Materials 1: Residential</td>
<td>3</td>
</tr>
<tr>
<td>CEM 175B</td>
<td>Electrical Code Materials 2: Commercial</td>
<td>3</td>
</tr>
<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
<td>3</td>
</tr>
<tr>
<td>CEM 178A</td>
<td>Residential Construction Skills 1: &quot;Front End&quot;</td>
<td>3</td>
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<tr>
<td>CEM 178B</td>
<td>Residential Construction Skills 2: &quot;Finish End&quot;</td>
<td>3</td>
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<tr>
<td>CEM 190C</td>
<td>Enhanced Construction Skills</td>
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<tr>
<td>CEM 190C</td>
<td>Career Work Experience Education</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Three units from the following: ETECH 24, 60, 61, 62, 71, or ENGR 1A, 5, 10, 45
Certificate of Proficiency: Construction and Energy Management

CEM Core Courses ........................................... 25
One of the following: ENGL 100/1A/1AMC, or CABT 157 ... 3
Total for Certificate of Proficiency in Construction and Energy Management 28

BUILDING INSPECTION AND CONSTRUCTION CODES

The Building Inspection option leads to certifications in the codes that are needed by those seeking employment as Building Inspectors. Building inspection is one of the more stable areas of construction employment. Building Inspectors are employed in both the public and private sectors.

Building Inspection and Construction Codes

Core Courses Units
CEM 151 Construction Fundamentals: Principles and Practices ............. 3
CEM 151L Construction Fundamentals: Principles and Practices Lab ........... 1
CEM 155 Blueprint Reading ..................................... 3
CEM 162 Sustainable Buildings, Home Performance, and the Environment .......... 3
CEM 166 Fundamentals of the International Building Code I ................... 3
CEM 167 Fundamentals of the International Building Code II ..................... 3
CEM 168 Fundamentals of the Uniform Plumbing Code ......................... 3
CEM 169 Fundamentals of the Uniform Mechanical Code ....................... 3
CEM 175A Electrical Code Materials 1: Residential ......................... 3
CEM 175B Electrical Code Materials 2: Commercial ......................... 3
Total Core Courses ................................................................................. 28

Approved Electives

CEM 154 Construction Estimating ............................................. 4
CEM 157 Construction Law .................................................. 3
CEM 159 Construction Planning and Scheduling ....................... 3
CEM 160 Construction Management ....................................... 4
CEM 161 Construction Business and Related Topics .................. 4
CEM 163 Fundamentals of Renewable Energy Systems ....... 3
CEM 164R Building Fundamentals of the International Residential Code ...... 3
CEM 165R Electrical, Mechanical, and Plumbing Fundamentals of IRC ............... 3
CEM 170 Foundation Layout ............................................. 3
CEM 177 Fundamentals of Residential Framing ...................... 3
CEM 199C Career Work Experience Education ...................... 1-3

Total for Construction Basics Skills Certificate ..................................... 14

CONSTRUCTION SKILLS CERTIFICATES

Skills Certificate: Construction Basics Units
CEM 151 Construction Fundamentals: Principles and Practices ............. 3
CEM 151L Construction Fundamentals: Principles and Practices Lab ........... 1
CEM 155 Blueprint Reading ..................................... 3
CEM 154A Estimating for Construction Professionals .................... 1
CEM 162 Sustainable Buildings, Home Performance, and the Environment .......... 3
CEM 163 Fundamentals of Renewable Energy Systems ....... 3

Total for Construction Basics Skills Certificate ..................................... 14

Skills Certificate: Construction Management

Provides students wishing to enter the field of Construction Project Management or wishing to increase their skills as contractors with a certificate recognizing the completion of these core courses.

Skills Certificate: Construction Business Management Units
CEM 154A Estimating for Construction Professionals .................... 1
CEM 157 Construction Law .................................................. 3
CEM 160 Construction Management ....................................... 4
CEM 161 Construction Business and Related Topics .................. 4
CEM 162 Sustainable Buildings, Home Performance, and the Environment .......... 3
CEM 190BR Blueprint Reading for Construction Professionals .................... 1

Total for Construction Business Management Skills Certificate .................. 16

Skills Certificate: Construction Project Management Units
CEM 154 Construction Estimating ............................................. 4
CEM 155 Blueprint Reading ..................................... 3
CEM 159 Construction Planning and Scheduling ....................... 3
CEM 160 Construction Management ....................................... 4
CEM 162 Sustainable Buildings, Home Performance, and the Environment .......... 3

Total for Construction Project Management Skills Certificate .................. 17

Skills Certificates: Construction Inspection and Codes

Provides students with valuable certification toward employment in the realm of Building Inspection. Many students come to Cabrillo to obtain this knowledge for the specific purpose of obtaining a job as a building inspector.
Skills Certificate: Construction Building Inspection and Codes

CEM 151  Construction Fundamentals: Principles and Practices .......................... 3
CEM 151L Construction Fundamentals: Principles and Practices Lab .................. 1
CEM 155  Blueprint Reading .............................................................. 3
CEM 162  Sustainable Buildings, Home Performance, and the Environment ........... 3
CEM 166  Fundamentals of the International Building Code I ............................ 3
CEM 167  Fundamentals of the International Building Code II ............................ 3

Total for Construction Building Inspection and Codes Skills Certificate 16

Skills Certificate: Construction Electrical Inspection and Codes

CEM 151  Construction Fundamentals: Principles and Practices .......................... 3
CEM 151L Construction Fundamentals: Principles and Practices Lab .................. 1
CEM 155  Blueprint Reading .............................................................. 3
CEM 162  Sustainable Buildings, Home Performance, and the Environment ........... 3
CEM 175A Electrical Code Materials 1: Residential ......................................... 3
CEM 175B Electrical Code Materials 2: Commercial .......................................... 3

Total for Construction Electrical Inspection and Codes Skills Certificate 16

Skills Certificate: Construction Specialty Inspection and Codes

CEM 151  Construction Fundamentals: Principles and Practices .......................... 3
CEM 151L Construction Fundamentals: Principles and Practices Lab .................. 1
CEM 155  Blueprint Reading .............................................................. 3
CEM 162  Sustainable Buildings, Home Performance, and the Environment ........... 3
CEM 168  Fundamentals of the Uniform Plumbing Code ....................................... 3
CEM 169  Fundamentals of the Uniform Mechanical Code ..................................... 3

Total for Construction Specialty Inspection and Codes Skills Certificate 16

Skills Certificate: Construction Trade

Provides students wishing to enter the construction trade with introductory, hands-on skills and a certificate. These classes and this certificate provide an avenue of entry into the well-paid construction industry.

CEM 151  Construction Fundamentals: Principles and Practices .......................... 3
CEM 151L Construction Fundamentals: Principles and Practices Lab .................. 1
CEM 155  Blueprint Reading .............................................................. 3
CEM 178A Residential Construction Skills 1: “Front End” ............................. 3
CEM 178B Residential Construction Skills 2: “Finish End” ............................. 3

Total for Construction Trade Skills Certificate 13

Skills Certificate: Construction Career Path

This skills certificate serves as a stepping stone into Cabrillo’s CEM program for high school and ROP students. Up to 4 units of CEM 190AZ credit may be obtained through articulation agreements with ROP and the high schools for construction related coursework taken at the high school level.

CEM 151  Construction Fundamentals: Principles and Practices .......................... 3
CEM 151L Construction Fundamentals: Principles and Practices Lab .................. 1

AND

Any combination of the following courses totaling 4 units:
CEM 190AZ Special Topics in Construction and Energy Management ................... 1½-5

OR
CG 51  Introduction to College .......................................................... 1-3

Total for Construction Career Path Skills Certificate 8

Construction and Energy Management Courses

CEM 151  Construction Fundamentals: Principles and Practices
3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Covers the sequence of events for residential construction from both an owner’s and a builder’s point of view. Topics include categories and phases of construction, planning and permitting processes, analysis of contract documents, safety, tools, equipment, material selection and use, foundations, framing, roofing, insulation, drywall, plumbing, HVAC, electrical, interior and exterior carpentry and finishes, and introductions to estimating, planning and scheduling, and project management.

CEM 151L  Construction Fundamentals: Principles and Practices Lab
1 unit; 3 hours Laboratory

Corequisite: CEM 151.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Covers the methodology and techniques for residential construction from a skills and vocational point of view. Topics include safety, tools, equipment, materials, foundation layout, framing, sheathing and siding, roof layout, roof framing, roof sheathing, roofing, plumbing, HVAC, electrical, insulation, drywall, interior and exterior carpentry and finishes.
CEM 154
Construction Estimating
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Covers basic methods of construction estimating and cost preparation for material, labor, overhead and equipment costs and its relationship to project budgets and management. Includes the use of the CSI Division Format, cost indexes, and computer estimating techniques to prepare, organize, and track costs.

CEM 154A
Estimating for Construction Professionals
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Provides an overview of basic methods of construction estimating and cost preparation for material, labor, overhead and equipment costs and its relationship to project budgets and management. Includes the use of the CSI Division Format and cost indexes.

CEM 155
Blueprint Reading
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Teaches the analysis and interpretation of construction drawings. Topics include the alphabet of lines, symbols, plot plans, foundation plans, floor plans, elevations, sectionals, framing details, and dealing with incomplete and inaccurate drawings. New construction and remodels both residential and commercial are covered.

CEM 157
Construction Law
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces complex legal principles and issues confronted in the construction profession in both the public and private sectors. Topics include insurance (workers’ compensation, general liability, automobile liability and builders’ risk coverage), bonds and bonding, construction documents, construction contract terms and conditions, laws, standards, practices, mechanics’ liens, stop notices, public agency orders, notices, claims, dispute resolution, arbitration, and litigation.

CEM 159
Construction Planning and Scheduling
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Covers project planning and scheduling fundamentals including software applications applied to the construction profession. Topics include: developing network modeling, network diagrams, Gantt charts, resources allocation and leveling, cash flow analysis, project budgeting, and project control.

CEM 160
Construction Management
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces construction management principles, practices, and associations. Topics include roles and responsibilities, delivery methods, management styles, contract types and documents, budgeting, scheduling, safety and risk management, documentation, human relations, leadership, resource allocation and leveling, project monitoring and control, close-out, measuring project success, and software applications which articulate the benefit of computer aided construction management.

CEM 161
Construction Business and Related Topics
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces business fundamentals, principles, practices, procedures, and topics related to construction. Topics include business ethics, organization behavior, management by objectives, planning and goal setting, safety, risk management, business/economic cycles, financing, accounting, marketing, and advertising, leadership, management styles, communication, teamwork, delegation, time management, staffing, recruitment, motivation, employee performance, rewards and discipline, conflict resolution, documentation, and information management systems.

CEM 162
Sustainable Buildings, Home Performance, and the Environment
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces sustainable building resources and applications, LEED certification requirements, home performance concepts, California energy codes, green building, and their relationships to the environment and residential construction.

CEM 163
Fundamentals of Renewable Energy Systems
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces renewable and alternative energy sources including grid interactive, stand-alone systems, wind, active and passive solar energy collection, site evaluation, design analysis of various systems and materials and methods of construction.
**CEM 164R**
**Building Fundamentals of the International Residential Code**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Provides training in the structural building provisions of the International Residential Code, including concrete, masonry, and wood frame construction. Designed for architects, contractors, designers, inspectors and those seeking IRC Certification.

**CEM 165R**
**Electrical, Mechanical, and Plumbing Fundamentals of IRC**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Provides training in the electrical, mechanical, and plumbing portions of the International Residential Code. Designed for architects, contractors, designers, inspectors and those seeking IRC Certification.

**CEM 166**
**Fundamentals of the International Building Code I**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Repeatability: May be taken 2 times.

Provides training in the structural portions of the International Building Code, including concrete, masonry, and wood frame construction. Designed for architects, contractors, designers, inspectors and those seeking International Code Council Certification.

**CEM 167**
**Fundamentals of the International Building Code II**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Repeatability: May be taken 2 times.

Provides training in the non-structural design portions of the International Building Code, including occupancy classification, types of construction and exiting. Designed for architects, contractors, designers, inspectors and those seeking International Code Council Certification.

**CEM 168**
**Fundamentals of the Uniform Plumbing Code**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Repeatability: May be taken 2 times.

Provides training in the requirements of the Uniform Plumbing Code including plumbing systems for waste, indirect and special wastes, venting, fresh water, gasses, fuels, solar, fire protection, and water heaters and is designed for contractors, architects, designers, and those seeking ICBO Certification.

**CEM 169**
**Fundamentals of the Uniform Mechanical Code**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Repeatability: May be taken 2 times.

Provides training in the requirements of the Uniform Mechanical Code, including mechanical systems for heating and cooling systems, combustion air, venting, ducting, refrigeration, and commercial kitchen vent hood and is designed for contractors, architects, designers, and those seeking ICBO Certification.

**CEM 170**
**Foundation Layout**
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Repeatability: May be taken 2 times.

Introduces foundations and concrete work fundamentals typical of residential construction including layout, forming, and reinforcement. Additional topics include inspection, pouring, and finishing of slab and stemwall structures as well as materials, tools and tool use, hardware, essential techniques for assembly taught by practical hands-on application.

**CEM 175A**
**Electric Code and Materials 1: Residential**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Repeatability: May be taken 2 times.

Provides training in the selection and installation of various electrical wiring systems as specified by the National Electric Code (NEC) for residential construction. Topics include conductors, cables, raceways, fittings, boxes, panels, devices, hazardous locations, special equipment and environments, high voltage wiring methods, and electrical blueprint reading and is designed for contractors, architects, designers, and those seeking certification.

**CEM 175B**
**Electric Code and Materials 2: Commercial**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Provides training in the selection and installation of various electrical wiring systems as specified by the National Electric Code (NEC) for commercial construction. Topics include conductors, cables, raceways, fittings, boxes, panels, devices, hazardous locations, special equipment and environments, high voltage wiring methods, and electrical blueprint reading in a commercial environment or context, and is designed for contractors, architects, designers, and those seeking certification.
CEM 177
Fundamentals of Residential Framing
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Repeatability: May be taken 2 times.
Introduces the student to layout and framing fundamentals typical of residential construction including floors, walls and partitions, roofs, safety, structural materials, tools and tool use, hardware, essential techniques for assembly and provides practical hands-on application.

CEM 178A
Residential Construction Skills 1: "Front End"
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Repeatability: May be taken 2 times.
Introduces “front end” construction: foundation layout, framing fundamentals, rough plumbing, rough HVAC, and rough electrical basics typical of residential construction. Additional topics include safety, foundations, floors, walls and partitions, roofs, fire protection systems, insulation, drywall, materials, tools and tool use, hardware, essential techniques for assembly and provides practical hands-on application.

CEM 178B
Residential Construction Skills 2: "Finish End"
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Repeatability: May be taken 2 times.
Introduces “finish end” construction: foundation layout, framing fundamentals, insulation, drywall, finish plumbing, finish HVAC, and finish carpentry basics typical of residential construction. Topics include safety, foundations, floors, walls and partitions, roofs, insulation, drywall, finish plumbing and electrical systems, painting, finish carpentry, tile, flooring, materials, tools and tool use, hardware, essential techniques for assembly and provides practical hands-on application.

CEM 190A-Z
Special Topics in Construction and Energy Management
½ - 5 units; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Repeatability: May be taken 4 times. Any particular special topics course may be taken a total of 4 times.
Selected topics in construction not covered by regular course offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending upon the subject matter.

COUNSELING AND GUIDANCE
Counseling Division
May K. Chen, Vice President, Student Services
Division Office, Building 100
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6385 for more information
http://www.cabrillo.edu/programs

Counseling and Guidance Courses
CG 1
College Success
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Integrates personal growth, learning techniques, academic and career success, problem solving, critical, and creative thinking. The course focuses on the following topics: self evaluation and assessment, goal setting, career decision making, educational planning, time and financial management techniques, instructor-student relationships, cultural diversity, health maintenance, stress management, campus resources, learning styles and strategies including lecture note-taking, test taking, memory and concentration. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC.

CG 51
Introduction to College
½ - 3 units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Aquaints students with college and university requirements, college services, educational alternatives, and strategies for student success. May be offered in a Distance-Learning Format. Meets Matriculation orientation requirement. Transfer Credit: Transfers to CSU.

CG 52
College Study Skills
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A course for the student who wants to learn how to take lecture and reading notes, master textbooks, manage time, concentrate, pass examinations, research term papers and other general college survival skills. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU.
CG 52IIA
Individualized College Study Skills
1 unit; 1 hour Distance Ed, 1-way Video, 2-way audio.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 3 times.
Learning how to learn is the subject of this self-paced course. The basic skills of taking notes, time management, classifying, problem solving, analysis, logical thinking, creative thinking, test taking and memory improvement are covered. The course is divided into one unit modules, and is taken through the Individualized Learning Center.
Transfer Credit: Transfers to CSU.

CG 52IIB
Individualized College Study Skills
1 unit; 1 hour Distance Ed, 1-way Video, 2-way audio.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 3 times.
The basic skills of taking notes, time management, classifying, problem solving, analysis, logical thinking, creative thinking, test taking and memory improvement. This is a self-paced course, divided into one unit modules, and taken through the Individualized Learning Center.
Transfer Credit: Transfers to CSU.

CG 52IIIC
Individualized College Study Skills
1 unit; 1 hour Distance Ed, 1-way Video, 2-way audio.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 3 times.
The basic skills of taking notes, time management, classifying, problem solving, analysis, logical thinking, creative thinking, test taking and memory improvement. This is a self-paced course, divided into one unit modules, and taken through the Individualized Learning Center.
Transfer Credit: Transfers to CSU.

CG 54
Career Planning
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A two-part class involving (1) self-analysis through discussion and tests of aptitude, interest, values and personality; (2) investigation of the world of work. Student may choose either individual or group counseling. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 57
Guidance for Re-entry Men and Women
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
A lecture/discussion guidance class designed to meet the needs of men and women whose formal education has been interrupted by family career responsibilities or choice. Includes educational, vocational, and individual counseling. Course open for enrollment to all students.
Transfer Credit: Transfers to CSU.

CG 58
College Success for Re-Entry Men
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
A lecture/discussion guidance class designed to meet the needs of men whose formal education has been interrupted by family and/or career responsibilities. Includes educational, vocational, and individual counseling. Course open for enrollment to all students.
Transfer Credit: Transfers to CSU.

CG 59
College Success for Re-Entry Women
2 units; 2 hours Lecture
Prerequisite: Enrollment in Re-entry Program.
Recommended Preparation: Eligibility for ENGL 100.
A guidance class designed to meet the needs of the woman whose formal education has been interrupted by family and/or career responsibilities. Includes educational, vocational and personal counseling.
Transfer Credit: Transfers to CSU.

CG 60A
Introduction to Peer Counseling
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 2 times.
A lecture discussion class in which students learn techniques of effective peer counseling to assist a diverse student population.
Transfer Credit: Transfers to CSU.

CG 60B
Introduction to Peer Counseling
2 units; 2 hours Lecture, 1 hour Laboratory
Prerequisite: CG 60A.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 3 times.
A lecture/discussion class in which students learn techniques of effective peer counseling to assist a diverse student population.
Transfer Credit: Transfers to CSU.

CG 65
Leadership Development
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
A lecture/discussion class that addresses issues of leadership in student government and non-academic contexts. Course requires the application of leadership skills in and out of class. Topics include: parliamentary procedure, group leadership techniques, project management, alliance building, and conflict management.
Transfer Credit: Transfers to CSU.
CG 99A
Take Control of Your Success
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Change ineffective behaviors in study, personal life, communication, health, finances and balancing school and family life. Practical application of theory and techniques of self-directed behavioral modification. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 99B
Work Less, Live More
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examination of the historical, cultural and economic influences on work hours. Exploration of alternative work arrangements, and personal strategies for balancing work with family and personal life. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 99C
Goal Setting
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Course will examine theories of motivation, goal setting, motivators and methods for overcoming obstacles. Students will analyze and apply internal and external techniques for goal setting and develop the skills for career and life success. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 99E
Personality Type and Learning Style
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A study of personality type and how it affects learning and teaching styles. Personality theory will be applied by students to enhance the balance of school and life responsibilities. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 107
Career and Transfer Research Activities
½ - 3 units; 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100. CS 1L or equivalent skills.
Repeatability: May be taken 3 times.
Provides opportunity for research in career development and/or transfer preparation. Includes research, observation and/or experience relating to career development and/or transfer preparation. Integrates self-analysis and investigation of the world of work and/or transfer options and will enhance the problem-solving, communication and critical thinking skills necessary for career and educational decision-making and success.

CG 190A-Z
Special Topics in Counseling and Guidance
½ - 5 units; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
 Presents selected topics in Counseling and Guidance not covered by regular course offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter. May be offered in a Distance-Learning Format.

CG 205
Academic Survival Skills
1 unit; 1 hour Lecture
Concurrent enrollment in CG 205L for the first semester taking CG 205. Recommended Preparation: None.
Repeatability: May be taken 4 times.
Assists students in developing college survival skills, to include note taking, test taking, time management, and studying effectively.

CG 205L
Academic Survival Skills Lab
1 - 3 units; 3 hours Laboratory
Prerequisite: Corequisite: CG 205 the first time. CG 205 not required if repeated. Recommended Preparation: None.
Repeatability: May be taken 4 times.
Assists student to develop academic skills in a supervised study environment by applying concepts and strategies presented in CG 205.

CG 208
Job Hunting
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.
Students will identify their job skills, interests, and objectives, as well as an understanding of local job market, goal setting, and job seeking skills.

CG 211
Career Planning for Special Needs Students
1 - 3 units; 1 hour Lecture
Prerequisite: Eligibility for Disabled Student Programs and Services.
In-depth exploration into individual’s vocational interests, aptitude abilities, job environment and market availability for placement. A general overview of agency sources available to facilitate the individual’s needs.

CG 215
Counseling and Guidance for Students in Non-Traditional Fields
2 units; 2 hours Lecture
None.
A guidance class for students entering non-traditional occupations. Topics include: assertive communication, apprenticeships, mentoring, study skills, self-esteem, career exploration and goal setting.
**CG 280A-Z**

**Special Topics in Developmental Studies**

1 - 3 units; 1 hour Lecture OR 2 hours Laboratory

Recommended Preparation: Eligibility for Disabled Student Programs and Services or an acquired brain injury.

Repeatability: Additional repetitions may be necessary to meet eligibility requirements for continuation of services as per Title 5, section 56044 “Special Class Course Repeatability”.

Discussion of factors affecting self-esteem techniques to raise self-esteem; application of techniques in daily life.

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**CG 286**

**Transition to College**

2 units; 2 hours Lecture

Repeatability: May be repeated. Additional repetitions may be necessary to meet eligibility requirements for continuation of services as per Title 5, section 56044 “Special Class Repeatability”.

This course is designed for students who have a psychological disability and are eligible for services through Disabled Student programs and Services. Addresses issues and concerns related to students with psychological disabilities as they affect vocational, academic and interpersonal situations occurring in a college environment.

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**CG 502**

**Supervised Tutoring**

0 units; 5 hours Laboratory

Repeatability: May be repeated.

Offers drop-in tutorial assistance in both high school equivalence courses and in university transfer courses.

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**CULINARY ARTS AND HOSPITALITY MANAGEMENT**

**Human Arts and Social Sciences Division**

Nancy A. Brown, Division Dean

Division Office, Room 420

Katherine Niven, Program Chair, (831) 477-3524

Counselor: (831) 479-6225 or (831) 479-6385 for appointment

Watsonville Counselor: (831) 477-5134

Call (831) 479-6348 or (831) 479-6297 for more information

http://www.cabrillo.edu/programs

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### Culinary Arts and Hospitality Management Occupational Program

Cabrillo College’s Culinary Arts and Hospitality Management program provides the student with the basic culinary skills in food preparation and service, advanced a la carte dining, and buffet food productions, as well as food service management training for the industry. Cabrillo College offers a basic skills certificate in cooking or catering (16 units each) and/or a certificate of proficiency in Culinary Arts (33 units). The skills certificates are stepping stones towards a certificate of proficiency. When a student has completed 30 units of Culinary Arts core classes and also completed 21 additional units of general education, they can then complete an A.S. Degree in Culinary Arts and Hospitality Management.

The program is located at the beautiful Sesnon House Mansion where there is a full-service restaurant and a catering facility open to the public. The students gain hands-on experience in fine dining and catering events up to 200 people. Check out the website for the Sesnon House at www.cabrillo.edu/services/sesnon.

### Career Opportunities

Any dish that a trained culinarian creates can be a work of art in both tasted and visual appeal. As a business, though, a graduate from Culinary Arts and Hospitality Management means employability. The California Restaurant Association (www.calrest.org) indicates that:

- California eating-and-drinking place sales are projected to rise
- In a recent survey, California’s new restaurants exceed 6,000; more than any other state in the nation for the same surveying period
- In recent years consumers spent more of the money at restaurants than they did at the supermarket
- The typical restaurant owner started at the beginning of the career ladder working as a dishwasher, busser, or cook. In fact, more than 9 out of 10 salaried restaurant employees started out as hourly employees
- The restaurant industry is the largest employer in California, providing over 950,000 jobs. The restaurant industry provides work for almost 7% of those employed in California.

### CULINARY ARTS AND HOSPITALITY MANAGEMENT

**Core Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 50A</td>
<td>Introduction to Culinary Arts Basics</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50B</td>
<td>Introduction to Entrée Preparation and Service</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50C</td>
<td>Introduction to Appetizers and Baking Preparation</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50L</td>
<td>Introduction to Culinary Arts Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 57</td>
<td>Catering and Beverage Operations</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 151B</td>
<td>Advanced Culinary Arts*</td>
<td>9</td>
</tr>
<tr>
<td>CAHM 155</td>
<td>Basic Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 157L</td>
<td>Catering and Beverage Operations Lab</td>
<td>5</td>
</tr>
<tr>
<td>CAHM 160</td>
<td>Purchasing and Food Cost Control</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 163</td>
<td>Food Service Management</td>
<td>2</td>
</tr>
</tbody>
</table>

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**CULINARY ARTS AND HOSPITALITY MANAGEMENT**

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http://www.cabrillo.edu/programs
### Approved Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 20</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 149</td>
<td>Cake Decorating</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 153</td>
<td>Garde Manger</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 156L</td>
<td>History and Practice of Sauces</td>
<td>1-2</td>
</tr>
<tr>
<td>CAHM 159</td>
<td>Chocolate</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 165</td>
<td>Meat Cutting/Sausage Making</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 166</td>
<td>Breadmaking</td>
<td>1-2</td>
</tr>
<tr>
<td>CAHM 167</td>
<td>Cultural and Ethnic Foods</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 168</td>
<td>Advanced Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 170</td>
<td>Commercial Baking II</td>
<td>6</td>
</tr>
<tr>
<td>CAHM 171</td>
<td>The Art of Creating Wedding Cakes</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 172</td>
<td>Wine &amp; Wine Service</td>
<td>1-2</td>
</tr>
<tr>
<td>CAHM 174</td>
<td>World Wine</td>
<td>1-2</td>
</tr>
<tr>
<td>CAHM 175C</td>
<td>Career Work Experience Education</td>
<td></td>
</tr>
<tr>
<td>ACCT 151A</td>
<td>Introduction to Accounting: Bookkeeping Concepts</td>
<td>4</td>
</tr>
<tr>
<td>BUS 155</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td>MATH 154 Elementary Algebra</td>
<td>4</td>
</tr>
</tbody>
</table>

*CAHM 50L, Culinary Basics and CAHM 151B, Advanced Culinary Arts can be taken once as Core course, and repeated one time for approved elective credit.

### Associate in Science Degree Culinary Arts and Hospitality Management Units

- General Education .................................................. 21
- CAHM Core Courses ............................................... 30
- Approved Electives ................................................ 1-8
- Electives .................................................................... 1-8
- Total for A.S. Degree in Culinary Arts and Hospitality Management ............................................... 60

### Certificate of Proficiency Units

- CAHM Core Courses .................................................. 30
- ENGL 100/1A/1AMC or CABT 157 ..................................... 3
- Total for Certificate of Proficiency ............................. 33

### Skills Certificates in Culinary Arts

#### Entry Level Cook

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>CAHM 50A</td>
<td>Introduction to Culinary Arts Basics</td>
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<td>Introduction to Appetizers and Baking Preparation</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50L</td>
<td>Introduction to Culinary Arts Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 151B</td>
<td>Advanced Culinary Arts</td>
<td>9</td>
</tr>
</tbody>
</table>
- Total for Entry Level Cook Skills Certificate .......................... 16

#### Entry Level Catering

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CAHM 50A</td>
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</tr>
<tr>
<td>CAHM 50L</td>
<td>Introduction to Culinary Arts Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 57</td>
<td>Catering and Beverage Operations</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 153</td>
<td>Garde Manger</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 157L</td>
<td>Catering and Beverage Operations Lab</td>
<td>5</td>
</tr>
</tbody>
</table>
- Total for Entry Level Catering Skills Certificate .................. 16

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### Culinary Arts and Hospitality Management Courses

#### CAHM 20

**Nutrition**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines essential nutrients and how they affect our health throughout life emphasizing and evaluating current developments in nutrition. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN FCS2.

#### CAHM 50A

**Introduction to Culinary Arts Basics**

1 unit; 1 hour Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores kitchen safety and sanitation, nutrition, menu planning, food costing, principles of cooking, knife skills, tools and equipment, and techniques for making stocks, sauces, and soups via lecture-based instruction.

Transfer Credit: Transfers to CSU.

#### CAHM 50B

**Introduction to Entree Preparation and Service**

1 unit; 1 hour Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the principles of restaurant organization; purchasing, storage, cutting, and cooking methods for meat, poultry, fish, shellfish, and vegetarian entrees via lecture-based instruction.

Transfer Credit: Transfers to CSU.

#### CAHM 50C

**Introduction to Appetizers and Baking Preparation**

1 unit; 1 hour Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the principles of baking breads, cakes, custards, pies; preparation of fruits, vegetables, starches; and hors d’oeuvre preparation via lecture-based instruction.

Transfer Credit: Transfers to CSU.
CAHM 50L
Introduction to Culinary Arts Lab
2 units; 6 hours Laboratory
Corequisite: CAHM 50A, CAHM 50B, and CAHM 50C.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Explores a practical application of basic food preparation, service, costing, sanitation, menu planning, and purchasing via laboratory-based instruction. Transfer Credit: Transfers to CSU.

CAHM 57
Catering and Beverage Operations
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines menu planning, costing, beverage management, public relations, hospitality service, and business strategies involved in catering. Transfer Credit: Transfers to GSU.

CAHM 64
Sanitation and Hygiene
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines and evaluates all phases of food sanitation, public health laws, and special problems in hotel and restaurant sanitation. Transfer Credit: Transfers to CSU.

CAHM 149
Cake Decorating
1 unit; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces cake decorating techniques including filling and icing cakes, pastry bag work in borders, Australian lace, string work, writing, and flowers.

CAHM 155
Basic Baking and Pastry
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces equipment, skills, and procedures in commercial bakeries, including hands-on production of pastries and specialty items.

CAHM 156A-Z
Special Topics in Culinary Arts and Hospitality Management
½ - 3 units; ½ hour Lecture OR 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
A course designed to investigate special areas of interest in culinary arts, including table service, cake decorating, computer use and culinary specialties. The special selective topics will be announced in the Schedule of Classes.

CAHM 157L
Catering and Beverage Operation Lab
2½ - 5 units; 7½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Provides practical application of catering techniques including menu planning, costing, hospitality service, and buffet presentation.

CAHM 159
Chocolate
1 unit; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the history and manufacturing of chocolate as well as the practical uses and techniques in working with dark, white, and milk chocolate.

CAHM 160
Purchasing and Food Cost Control
2 - 3 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches guidelines for developing food, beverage, and labor cost controls, including theories and procedures related to food storage, portioning, designing menu formulas, costing and pricing, labor and yield calculations, sales forecasting, and basic financial statements.

CAHM 163
Food Service Management
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the theoretical and practical approaches to supervision and management for the prospective food service manager.
CAHM 165  
**Meat Cutting and Sausage Making**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies meat, poultry, and fish butchering, emphasizing meat grading, identification, and structure; techniques of fabrication; applications and methods of cooking; and preserving, curing, smoking, and making sausage.

CAHM 166  
**Bread Making**  
1 - 2 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies bread making techniques for preparing yeasted breads, sweet doughs, and specialty items such as sourdough and laminated doughs.

CAHM 167  
**Cultural and Ethnic Foods**  
2 units; 1 hour Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces a variety of ethnic foods which could include Middle Eastern, African, European, and/or Southeast Asian, emphasizing how to prepare and incorporate ethnic foods into a restaurant setting. May focus on specific cuisine areas.

CAHM 168  
**Advanced Baking and Pastry**  
3 units; 2 hours Lecture, 3 hours Laboratory  
Prerequisite: CAHM 155.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Examines advanced application of principles and practical techniques of yeast doughs, puff pastry, cookies, tarts, cakes, tortes, frozen desserts, plate presentation, and cake decorating.

CAHM 169  
**Commercial Baking I**  
6 units; 1 hour Lecture, 15 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Introduces hands-on commercial baking by focusing on quantity production baking and production of yeast and yeast breads, cookies, and muffins.

CAHM 170  
**Commercial Baking II**  
6 units; 1 hour Lecture, 15 hours Laboratory  
Prerequisite: CAHM 169. Recommended Preparation: CAHM 149, Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Presents an intermediate hands-on course in commercial baking emphasizing quantity and practical application in the production of cakes, pastries, and enriched doughs.

CAHM 171  
**The Art of Creating Wedding Cakes**  
1 unit; ½ hour Lecture, 1½ hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explores the creation of wedding cakes including principles of mixing, baking, filling, frosting, and decorating.

CAHM 172  
**Wine and Wine Service**  
1 - 2 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explores basic concepts of oenology, wine regions, wine varieties; the health benefits of wine; responsible beverage service; and wine sensory perception in the form of guided wine tastings.

CAHM 174  
**World Wines**  
1 - 2 units; 1 hour Lecture  
Prerequisite: CAHM 172.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explores world wines in depth, focusing on differences in viniculture, wine laws, and grape varieties in major world wine producing countries including sensory perception of wine based on the terroir influences of the region. Must be 21 or over to enroll.

CAHM 175  
**History and Practice of Sauces**  
1 - 2 units; ½ hour Lecture, 1½ hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Presents the history and techniques of sauce making around the world.

CAHM 198  
**Culinary Arts Internship**  
4 units; 20 hours Laboratory  
Prerequisite: CAHM 50ABCL, CAHM 64, CAHM 151B.  
Corequisite: COMM 8.  
Recommended Preparation: Eligibility for ENGL 100.  
Repeatability: May be taken 2 times.  
Students will gain hands-on experience in restaurants, bakeries, hotels, resorts, casinos, or food service establishments that meet their career goals in a learning environment that is supported by Cabrillo Culinary Arts instructors and dedicated chefs and managers in the industry. Prospective interns will be interviewed and selected by the manager or chef of the approved site.
DANCE
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room 301
David King, Program Chair, (831) 479-5027
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Information for Dance Majors

The academic discipline of Dance encompasses the role of dance as a performing art, as well as roles in other areas, including education, health, anthropology, history, and the science of human movement. Bachelor’s and graduate degrees in Dance and related fields provide a variety of career opportunities in the public and private sectors.

Many four-year colleges and universities offer emphases in areas such as modern dance, ballet, performance, choreography, musical theatre, dance education, dance therapy, somatics, dance ethology, dance history, and criticism. Specialties are also offered in physical therapy for dancers, dance for children, seniors, and special education.

See a counselor and consult college catalogs for specific information about existing transfer agreements with UC, CSU and some private institutions. Information on course equivalencies for major requirements at UC and CSU is available on the Internet at www.assist.org.

MODEL PROGRAM FOR DANCE

The following model program fulfills requirements for the A.A. Degree in Dance at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Dance Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 10 Dance Appreciation</td>
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</tr>
<tr>
<td>OR</td>
<td></td>
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<tr>
<td>DANCE 12 Survey of World Dance Traditions</td>
<td>3</td>
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<tr>
<td>DANCE 57 Dance Repertory</td>
<td>½-4</td>
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<tr>
<td>*DANCE 61 Introduction to Dance</td>
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<tr>
<td>DANCE 63 Dance Improvisation</td>
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<tr>
<td>DANCE 65 Jazz Dance</td>
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<tr>
<td>*DANCE 64 Intermediate Modern Dance</td>
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<td>OR</td>
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<tr>
<td>DANCE 68 Advanced Dance Technique and Performance Skills</td>
<td>½-4</td>
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<tr>
<td>DANCE 66 Choreography</td>
<td>½-2½</td>
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<td>*DANCE 67 Dance Production</td>
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<tr>
<td>DANCE 76 Ballet I</td>
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<tr>
<td>AND/OR</td>
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<tr>
<td>DANCE 78 Ballet II</td>
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*It is recommended that students take these classes in at least two semesters.

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<tr>
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<td>(Choose one of these world dance forms)</td>
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<tr>
<td>DANCE 58 Street Dance &amp; Hip Hop</td>
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<td>DANCE 59 Latin Dance</td>
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<td>DANCE 69 African Dance</td>
<td>½-3</td>
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<tr>
<td>DANCE 62 Pilates Mat Work</td>
<td>½-3</td>
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<tr>
<td>DANCE 82 Body/Mind Balance: Movement Awareness</td>
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<td>DANCE 68 Advanced Dance Technique and Performance Skills</td>
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<td>DANCE 74 Creative Movement</td>
<td>½-2</td>
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<tr>
<td>DANCE 79F Special Topics: Adaptive Dance</td>
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<tr>
<td>DANCE 80 Dance Rehearsal</td>
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<td>DANCE 81 Swing Dance</td>
<td>½-3</td>
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<tr>
<td>DANCE 84 Dance for Musical Theatre</td>
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<td>DANCE 86 Ballroom Dance</td>
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<th>Other Electives</th>
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<tr>
<td>BIO 4 Human Anatomy</td>
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<td>Or</td>
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<td>BIO 13A Biology of People-Anatomy and Physiology</td>
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<tr>
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<td>TA 10A Basic Acting Techniques</td>
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<td>TA 31 Introduction to Design in the Theatre</td>
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<th>Associate in Arts Degree in Dance</th>
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<td>General Education</td>
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<tr>
<td>Core Courses</td>
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<td>Total for A.A. Degree in Dance</td>
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</table>

Dance Courses

DANCE 10
Dance Appreciation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines 20th Century dance through its historical, cultural, artistic and performing contexts, using lectures, video, demonstration, viewing live performances and exploring selected dance styles.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 12
Survey of World Dance Traditions
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines dance forms of the world through lecture, viewing, and discussion to explore their historical, social, and political contexts. Students will read dance texts, view videos, attend dance events, and will learn basic movements from a variety of dances of the world.
Transfer Credit: Transfers to CSU. Transfers to UC pending review.
DANCE 57
Dance Repertory
½ - 4 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Rehearse and perform the choreographic repertory of faculty, guest artists, and/or student choreographers while learning how to fully produce a dance concert.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 58
Hip Hop and Street Dance I
½ - 4 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Introduces beginning hip hop and street dance styles and forms.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 59
Latin Dance
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 61; eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Latin Dance styles, including Salsa, with additional selections from Merengue, Cumbia, Rhumba, ChaCha, Mambo, Samba and Tango.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 60
Roots of Jazz Dance
½ - 2 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and Reading 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
African and Black American jazz dance, emphasizing the historical and evolutionary development.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 61
Introduction to Dance/Moving to Live Music
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Introduces basic dance techniques (conditioning, strength, flexibility, alignment, coordination, rhythm, body and spatial awareness), dance vocabulary, and elements of expressive style while promoting ease and confidence in movement.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 62
Pilates Mat Work
½ - 3 units; ½ hour Lecture, 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Introduces Pilates mat work, with emphasis on increased awareness of the body and mind working as a whole while increasing strength and flexibility, improving body alignment, breath awareness and efficiency of movement.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all P.E. Activity courses, maximum credit-4 units. Dance 62 is a P.E. Activity course.

DANCE 63
Dance Improvisation
½ - 2 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Introduces the basic skills of improvisation which enhance creativity in movement, while exploring the elements of time, space, shape and energy as they relate to dance, dance performance and other art forms in personal and group movement experiences.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 64
Intermediate Modern Dance
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Teaches contemporary modern dance technique, develops personal expression and musicality, improves alignment, body awareness, and conditioning while performing longer and more challenging movement combinations to live music.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 65
Jazz Dance
½ - 2 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Covers jazz dance techniques and styles and includes warm-up, conditioning, and jazz combinations performed to music.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 66
Choreography
½ - 2 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Create dances and explore how to apply the elements of choreography to any style of dance, while working in a supportive environment with the building blocks of structure, content, and creative inspiration.
Transfer Credit: Transfers to CSU. Transfers to UC.
DANCE 67
Dance Production
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Produce, perform and/or choreograph for the Cabrillo College Dance concert.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 68
Advanced Dance Technique and Performance Skills
½ - 3 units; ½ hour Lecture, 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Refines contemporary modern dance technique and performing skills while learning more complex patterns of movement, embodiment of alignment, flexibility, strength and energy flow with live dance accompaniment.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 69
African Dance
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Learn African dances from various regions in Africa including their social, historical and cultural significance.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 70
Jazz Workshop
½ - 2 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Explorations of jazz dance styles, with attention to structure while learning to perform in jazz dance pieces.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 71
Ballet Barre
½ - 2 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Concurrent enrollment in another Cabrillo dance course. Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Learn basic ballet barre, including warm-up, musicality, spatial awareness, and performance technique.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 72
Survey of Dance Styles
½ - 2 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Surveys a variety of dance and movement styles including social dance, Latin, Hip Hop, Jazz, post modern, and somatics through dance experiences.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 73
Dance Theatre as Performance Art
½ - 2 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Explores the crafts of both dance and theatre and ways of combining these art forms to create performance art.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 74
Creative Movement
½ - 2 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides a playful and supportive atmosphere to explore imagination, creativity, self-expression, communication, and group play while discovering your movement potential through improvisation.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 75
Introduction to Sound and Dance
½ - 2 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Explore a broad range of music, sound, and methods of working with a musical score to create dances.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

DANCE 76
Ballet I
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 61; eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any combination of DANCE 71 and DANCE 76 may be taken 4 times. Thereafter, may be audited.
Introduces basic techniques and principles of ballet through barre, center floor work, cross the floor combinations while acquainting the student with the aesthetics, history and tradition of classical Ballet.
*Transfer Credit:* Transfers to CSU. Transfers to UC.
DANCE 78
Ballet II
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 61 and DANCE 76; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Intermediate level techniques and principles of ballet are presented through barre, center floor work and across-the-floor combinations while exploring in more depth the aesthetics, history and tradition of the classical ballet.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 79A-Z
Special Topics in Dance
½ - 3 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Study of selected dance topics and styles of special interest.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

DANCE 80
Dance Rehearsal
½ - 1½ units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides an opportunity for students to develop rehearsal skills for student dance pieces under the guidance of faculty with open entry rehearsals and is particularly recommended for students enrolled in DANCE 57, 66, and 67. Provides access to video taping equipment.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 81
Swing Dance
½ - 3 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 61; eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Designed to build students’ understanding of swing dance and expand their repertoire of dance skills across a wide range of traditional and popular swing dance styles.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 82
Body/Mind Balance: Movement Awareness
½ - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Studies the process of body awareness and the body/mind connection through a survey of somatic movement forms and modalities that introduce somatic-based movement explorations, stress management, relaxation and visualization techniques that lead to enhanced health and well being.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 84
Dance For Musical Theatre
½ - 4 units; ½ hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Rehearse and perform dance techniques, dance sequences from musicals, jazz styles related to characters and stories in theatrical settings and selected styles of musical theater dance.
Transfer Credit: Transfers to CSU. Transfers to UC.

DANCE 86
Ballroom Dance
½ - 3 units; ½ hour Lecture OR 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Introduces the basic skills for following and leading in selected ballroom dance styles including: Fox Trot, Waltz, Swing, Two Step, Salsa and additional popular ballroom dances.
Transfer Credit: Transfers to CSU. Transfers to UC.

DENTAL HYGIENE
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Bridgete Clark, D.D.S., Program Chair, (831) 479-6471
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6471 for more information
http://www.cabrillo.edu/programs

Dental Hygiene Occupational Program
The dental hygiene program at Cabrillo College is affiliated with the University of the Pacific, School of Dentistry, San Francisco. The curriculum requires two full years. Upon completion of the program, students are eligible to take the state and national examinations. Enrollment is limited to 22 students each fall. Program retention is based on a minimum grade of “C” in all courses in the published dental hygiene curriculum. Courses must be taken sequentially or student must receive permission of the director.

How to Apply
Admission to the Dental Hygiene program requires a separate and additional process to the general college admission. The Dental Hygiene information and application forms are available in the Dental Hygiene Office (Room 611A) and on the website (www.cabrillo.edu/academics/dentalhygiene). General college application materials are available: in the Admissions and Records Office, Enrollment Services Center, Building 100, (831) 479-6201; online (www.cabrillo.edu) or by mailing a written request for the application to Cabrillo College Admissions and Records, 6500 Soquel Drive, Aptos, CA 95003.
Process of Application

Read all material in the application packet and the appropriate sections of the Cabrillo College Catalog about the associate degree of Dental Hygiene program, academic regulations, attendance and graduation requirements. Return the completed dental hygiene application forms to the Dental Hygiene Department. You must include one set of official transcripts from all colleges attended (including Cabrillo College transcripts.)

A completed application includes:
1. Dental Hygiene application form,
2. Student File form,
3. Performance Standards form,
4. Official sealed transcripts documenting all college prerequisite courses completed.

Acceptance is based on:
1. Completed application as outlined above,
2. Successful completion of all prerequisites with a grade “C” or better,
3. Completion of all science prerequisites with a GPA of 2.7 or better,
4. Completion of English prerequisite with a GPA of 2.00 or better.

Due to the rigorous academic nature of the Dental Hygiene Program, it is advisable to complete the general education requirements for the Associate Degree, including Bio7, before entering the program. No more than one re-enrollment in a Dental Hygiene Program is allowed.

Security Screening

To comply with state and local regulations for health care providers, students enrolled in the Cabrillo College Dental Hygiene program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Center before entering the program. Students are also required to complete criminal background checks, and may be required to undergo fingerprinting.

Prequisites

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* MATH 154, or equivalent is a prerequisite for CHEM 30A; CHEM 30A is a prerequisite for CHEM 30B*. BIO 5 and BIO 6.

**ENGL 100; ENGL 100L or 115 or equivalent is a prerequisite for CHEM 30A; CHEM 30A is a prerequisite for CHEM 30B*. BIO 5 and BIO 6.

These prerequisites may also be used to satisfy appropriate general education areas.

Successful completion of these prerequisites or equivalent is required before applying to the Dental Hygiene Program. It is recommended that all science prerequisites be completed within the last five (5) years.

Core Courses

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<td>DH 171</td>
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<td>DH 180</td>
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<td>DH 187</td>
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<td>DH 188</td>
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<td>DH 191</td>
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Elective

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>DH 188</td>
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Additional Graduation Requirements

<table>
<thead>
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<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1</td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>COMM 2</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 20</td>
<td>3</td>
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<tr>
<td>SOC 1</td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>*SOC 2</td>
<td>3</td>
</tr>
</tbody>
</table>

*A SOC 2 meets the Multicultural Studies Requirement for graduation. Please note that the above courses may also be used to satisfy appropriate general education areas.

NOTE: It is highly recommended to complete the General Education courses and BIO 7 prior to entering the Dental Hygiene Program.

General Education

This A.S. Degree requires completion of a 21-unit general education pattern (see Cabrillo College Catalog under Associate in Science Degree or the A.S. Degree worksheets available in Counseling or on the Transfer and Articulation website at www.cabrillo.edu/services/articulation/infostudindex/hm). Completing a U.S. History or U.S. Political Science course and a Humanities course, in addition to the above prerequisites and graduation requirements, will complete the A.S. Degree general education pattern for dental hygiene students.

A Bachelor of Science/Bachelor of Arts Degree from a regionally accredited college or university will satisfy all general education and competency requirements for Cabrillo’s non-transfer A.A. and A.S. degrees, with the exception of the multicultural requirement and program specific graduation requirements.

Mathematics Competency Requirement

The A.S. Mathematics Requirement may be met by successful completion of elementary algebra or equivalent or a higher-level mathematics course with a grade of “C” or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.
### Multicultural Requirement

An approved multicultural course is required for graduation. This course may be double counted with general education or other program graduation requirements. Courses taken at other regionally accredited colleges can be used when approved by a Cabrillo Counselor.

### Associate in Science Degree in Dental Hygiene

| General Education Courses | 21 |
| Core Courses | 53½ |
*Total for A.S. Degree in Dental Hygiene | 74½ |

*Plus approved prerequisite units. See above for information on prerequisites

### Dental Hygiene Courses

**DH 160**

**Oral Health Education**

2 units; 2 hours Lecture, 1 hour Laboratory  
Prerequisite: Enrollment in the Dental Hygiene Program; PSYCH 1 and CAHM 20 or concurrent enrollment.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Presents current concepts of prevention and psychological, motivational and communication techniques.

**DH 161**

**Preparation for Dental Hygiene Clinic**

½ units; ½ hour Lecture, ½ hour Laboratory  
Prerequisite: Enrollment in the Dental Hygiene Program.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Teaches guidelines, procedures, and infection control in the dental hygiene clinic, ethics, and legalities of dental practice.

**DH 162A**

**Patient Assessment I**

3 units; 3 hours Lecture, 1 hour Laboratory  
Prerequisite: Enrollment in Dental Hygiene Program and current CPR license.  
Corequisite: DH 171. Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Introduces medical-dental history, oral inspection, oral manifestation of diseases, dental office emergencies, and documentation of assessment data.

**DH 162B**

**Patient Assessment II**

3 units; 3 hours Lecture  
Prerequisite: Enrollment in the Dental Hygiene Program and DH 162A.  
Corequisite: DH 173.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Studies dental, medical and pharmacological needs of patients with emphasis on the care and management of special needs patients; correlates classification and study of drugs.

**DH 163A**

**Dental Radiology**

3 units; 2 hours Lecture, 3 hours Laboratory  
Prerequisite: Enrollment in the Dental Hygiene Program.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Presents principles of radiation theory, techniques, laboratory and clinical application, radiation safety principles and techniques, care and operation of equipment, processing techniques and mounting.

**DH 163B**

**Dental Radiographic Interpretation and Case Studies**

1 unit; 1 hour Lecture, 1 hour Laboratory  
Prerequisite: Enrollment in the Dental Hygiene Program and DH 163A; BIO 7 or concurrent enrollment.  
Recommended Preparation: Eligible for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Teaches identification of radiographic anatomy with emphasis on specialized techniques.

**DH 164**

**Dental Materials**

2 units; 2 hours Lecture, 1 hour Laboratory  
Prerequisite: Enrollment in the Dental Hygiene Program.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Teaches the composition and fabrication of dental restorations, the proper care of dental restorations, and an introduction to dental specialties.

**DH 170**

**Tooth Morphology, Oral Histology, and Oral Embryology**

2 units; 2 hours Lecture, 1 hour Laboratory  
Prerequisite: Enrollment in the Dental Hygiene Program.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Teaches recognition of normal and abnormal clinical appearance of the permanent and deciduous dentition as well as in-depth oral histology and oral embryology.
DH 171
**Introduction to Clinical Dental Hygiene**
5 units; 3 hours Lecture, 9 hours Laboratory
Prerequisite: Enrollment in the Dental Hygiene Program and DH 161.
Corequisite: DH 162A and DH 163A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces professional conduct, assessment, exploring, probing, and scaling techniques through laboratory and clinical experiences. First in a four-course series in clinical dental hygiene practice.

DH 173
**Clinical Dental Hygiene I**
5 units; 2 hours Lecture, 14 hours Laboratory
Prerequisite: Enrollment in the Dental Hygiene Program and DH 171.
Corequisite: DH 162B, DH 163B, and DH 174.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces dental & periodontal charting, desensitizing procedures, pit & fissure sealants, ultrasonic scalers, and Gracey curets through laboratory and clinical experiences. Second in a four-course series in clinical dental hygiene practice.

DH 174
**Periodontics**
2 units; 2 hours Lecture
Prerequisite: Enrollment in the Dental Hygiene Program and BIO 6.
Corequisite: DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces general pathology and clinical pathology of diseases affecting the oral, head and neck areas.

DH 180
**Oral Pathology**
2 units; 2 hours Lecture
Prerequisite: Enrollment in the Dental Hygiene Program and DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces the principles and practices of dental public health, and the role of the dental hygienist as an innovator of educational health programs.

DH 181
**Clinical Dental Hygiene II**
6 units; 1 hour Lecture, 20 hours Laboratory
Prerequisite: Enrollment in the Dental Hygiene Program and DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces advanced clinical techniques, soft tissue curettage, advanced treatment planning, and evaluation of treatment through clinical experiences. Third in a four-course series.

DH 182A-Z
**Special Topics in Dental Hygiene Education**
½ - 3 units; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Introduces selected topics in Dental Hygiene Education not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.

DH 183
**Clinical Dental Hygiene III**
6 units; 2 hours Lecture, 16 hours Laboratory
Prerequisite: Enrollment in the Dental Hygiene Program and DH 181.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Studies new technology & computer based skills for the operatory, refinement of local anesthesia, nitrous oxide analgesia, and advanced clinical techniques through clinical experiences at Cabrillo and outside clinics. Fourth in a four-course series in clinical dental hygiene practice.

DH 184A
**Pain Management I**
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: Enrollment in the Dental Hygiene Program.
Corequisite: BIO 7.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces theory and techniques for administration of regional anesthetic agents, including nerve and field blocks limited to the oral cavity.

DH 184B
**Pain Management II**
1 unit; 1 hour Lecture, 1 hour Laboratory
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces advanced clinical techniques, soft tissue curettage, advanced treatment planning, and evaluation of treatment through clinical experiences. Third in a four-course series.

DH 186A
**Community Oral Health**
2 units; 2 hours Lecture
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces the principles and practices of dental public health, and the role of the dental hygienist as an innovator of educational health programs.
DH 186B
Community Oral Health and Case Studies
1 unit; 3 hours Laboratory
Prerequisite: Enrollment in the Dental Hygiene Program and DH 186A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers planning, implementation, and evaluation of a dental health project of the student’s own design with a dentally-underserved population. A continuation of DH186A.

DH 187
Dental Hygiene Law and Ethics
2 units; 2 hours Lecture
Prerequisite: Enrollment in the Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 or READ 100.
Repeatability: May be taken 2 times.
Teaches current concepts in ethics and legalities involved in dental hygiene practice.

DH 188
Clinic Dental Hygiene IV
½ units; ½ hour Lecture, 1 hour Laboratory
Prerequisite: DH 183.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Refines advanced clinical techniques, advanced treatment planning, and evaluation of treatment through clinical experiences at Cabrillo and outside clinics to the fifth semester level. Elective course in the DH Department.

DIGITAL BRIDGE ACADEMY:
DIGITAL MANAGEMENT AND CAREER PREPARATION
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Susan Nerton, Program Chair, (831) 479-6545
Diego James Navarro, Program Director, (831) 477-5166
Digital Bridge Academy Office, (831) 477-5164
Watsonville Counselor: (831) 477-5134
http://www.cabrillo.edu/academics/wdba/

Information for Digital Management and Career Preparation Students
The Watsonville Digital Bridge Academy (WDBA) is an innovative program designed for students who are under-prepared for college. The WDBA offers a carefully sequenced educational program of academic support, instruction in how to grow in self-knowledge and self-discipline, work experience, and student support to prepare students for success in careers with a future.

Careers in the Digital World are high-wage, high-demand careers that require the daily use of digital technology. These careers are found in the areas of Biology, Chemistry, Physics, Computer Networking and System Administration, Computer and Information Systems, Engineering, Engineering Technology, Administration of Justice, Business, Allied Health (Nursing, Radiologic Technology, Dental Hygiene), and laboratory settings (Biotechnology, Marine Science). The DMCP courses listed as part of this certificate prepare students for success in selecting and completing college courses leading to a digital technology-based career. The DMCP courses also prepare students to succeed in leadership positions in these careers, introducing skills needed for a career in management.

DMCP 110, the foundation course, is a 3-unit introductory course offered the first two weeks of each semester. Prior computer experience is not required for potential students.

For more information, contact the Watsonville Digital Bridge Academy Office, phone (831) 477-5164, or our web site at http://www.cabrillo.edu/academics/wdba/
Skills Certificate: Preparation for Leadership and Management

**Careers in the Digital World**

<table>
<thead>
<tr>
<th>DMCP 110</th>
<th>Foundations of Digital Management</th>
<th>2-3½</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMCP 111</td>
<td>Introduction to Digital Management</td>
<td>1-2</td>
</tr>
<tr>
<td>DMCP 112</td>
<td>Fundamentals of Digital Management</td>
<td>1-3</td>
</tr>
<tr>
<td>DMCP 113</td>
<td>Fundamentals of Digital Management Intensive</td>
<td>1-2</td>
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OR

| DMCP 160LI | Applications of Literacy Skills | 2    |
| CS 1L      | Lab: Introduction to Computers and Computer Technology | 2    |
| CG 54      | Career Planning                | 1    |
| DANCE 82   | Body/Mind Balance: Movement Awareness | 1½   |

Total for Skills Certificate: 9½-15 units

Digital Management and Career Preparation Courses

**DMCP 30**

**Applied and Conceptual Survey of the Sciences**

2 units; 1½ hours Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Presents a multidisciplinary approach to biology, chemistry, and physics covering basic principles and current applications.

*Transfer Credit:* Transfers to CSU.

**DMCP 110**

**Foundations of Digital Management**

2 - 3½ units; 2 hours Lecture, 4 hours Laboratory
Corequisite: DMCP 111, DMCP 112.
Recommended Preparation: Eligibility for READ 205.
Repeatability: May be taken 4 times.

Develops professional behaviors that lead to academic success and knowledge work career success such as building self-managed teams, and identifying/leading teams represented by individuals with different learning styles. Course is based on curriculum used to train executives in large companies to develop professional behaviors.

**DMCP 111**

**Introduction to Digital Management**

1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 110 (may be taken concurrently).
Corequisite: DMCP 112.
Recommended Preparation: Eligibility for READ 205.
Repeatability: May be taken 4 times.

Explores the connections between one’s purpose and intentions and one’s behaviors, and develops the self-management skills to successfully attain one’s goals.

**DMCP 112**

**Fundamentals of Digital Management**

1 - 3 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 110 (may be taken concurrently).
Corequisite: CS 1L, DMCP 111.
Recommended Preparation: Eligibility for READ 205.
Repeatability: May be taken 4 times.

Explores fundamental digital management topics: leading and working on a self-managing work team, developing project management skills, and identifying and analyzing opportunities that lead to proposals and business plans. Additional topics include: defining knowledge work cultures, solving a social justice problem through utilizing discovery-based research methodology, and marketing new ideas.

**DMCP 113**

**Fundamentals of Digital Management Intensive**

1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 110 (may be taken concurrently).
Corequisite: DMCP 111, DMCP 112.
Recommended Preparation: Eligibility for READ 205.
Repeatability: May be taken 4 times.

Develops professional skills that lead to knowledge work career success. Skills include facilitating team meetings, recording team discussions and decisions, working within a self-managed team studying a social justice issue, and using a scientific method-based approach for creating funding proposals and business plans.

**DMCP 115A**

**Digital Management–Self-Managing Teams**

1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 112 (may be taken concurrently).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents intermediate digital management topics related to self-managed work teams. Topics include leadership in different knowledge work cultures, building effective self-managing teams, forecasting the future using scenario planning methods, and servant leadership. Course is based on curriculum used to train executives in large companies to forecast the future and to manage self-managing teams.

**DMCP 115B**

**Digital Management–Change Management**

1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 112 (may be taken concurrently).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents advanced digital management topics focused on how change and innovation occurs in organizations. Emphasizes methods used by executives in large companies to lead and manage change effectively.
DMCP 116A
Advanced Digital Management–Management and Leadership
1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents advanced digital management topic focused on the difference between management versus leadership, and how to create and deliver value in the workplace and classroom. Course is based on curriculum used to train executives in large companies to lead and manage effectively.

DMCP 116B
Advanced Digital Management–Consulting Skills
1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents advanced digital management topic focused on developing components of a successful consulting practice by creating value for clients. Course is based on curriculum used to train professionals in large companies as consultants.

DMCP 116C
Advanced Digital Management–Leadership and Sustainability
1 - 2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents advanced digital management topics focused on leadership and sustainability. Scenario building, complex systems and networks, change management and control systems inventory skills are used to evaluate personal and community environmental impacts. Topics include evidence for trends regarding business decision and environmental impact, pressures for economic growth and resource limitations, both globally and within the local community.

DMCP 131
Applied Survey of Careers in Technology and Science
2 units; 1½ hours Lecture, 1½ hours.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Identifies knowledge, skills and abilities common to careers in computer science, computer and information systems, engineering, engineering technology and allied health. Explores career paths in these fields and identifies strategies for career advancement that are unique to careers in technology and science.

DMCP 160A-ZZ
Special Topics in Digital Management Career Preparation
1 - 4 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any particular topic may be taken a total of 4 times.

Designed to investigate special selected areas of interest in Digital Management Career Preparation not covered by regular catalog offerings. The special areas will be announced and described and given their own titles and letter designations in the Schedule of Classes.

DIGITAL MEDIA
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room 301
Beth Regardz, Program Chair, (831) 479-6475
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Digital Media Department

Programs in the Digital Media Department provide instruction in the creation, preparation, and production of media for publication in print and on screen. Classroom instruction and lab assignments give students practical experience in various graphic design, digital publishing, interactive multimedia, motion media, and web media software applications and techniques. Students learn concepts, principles, and processes for digital media project design and development.

A.S. Degrees and Certificates of Proficiency are offered in the Digital Publishing and Web Media programs. A diverse selection of approved electives allows students to acquire specialized skills in particular areas of interest, such as: photography, CAD, graphic design, illustration, virtual reality, 3D animation, architectural modeling, color theory, engineering graphics, printing techniques, advertising, journalism, music, web design, and web publishing.

Digital Publishing and Web Media Occupational Programs

The Digital Publishing and Web media programs offer courses in the technology and skills needed for entry-level employment, transfer to upper division programs, and preparation for advanced specialized courses in the fields of digital publishing for printed media and web media production for interactive screen-based media. Students are trained to use computer applications for fields involving: graphic arts, publishing, news media, entertainment, education, commercial media, and advertising. The programs’ courses are designed to prepare students for these changing digital publishing professions and related technologies. Students will gain hands-on training by creating and producing independent and team projects for print and screen-based media.
Digital Publishing Program

The Digital Publishing program addresses communication design principles and processes for producing and publishing primarily printed materials. Students learn typography, formatting, file management, color prepress, and proofing strategies for the design and layout of printed media. Principles of design and layout learned in digital publishing for prepress can be applied to screen media, web publishing, multimedia, video and other non-print uses.

Web Media Program

The Web Media program provides instruction in the principles, concepts, tools, and techniques involved in the design, development, and production and publication of interactive web media. The courses are designed to prepare students for entry-level positions in the fields of planning, designing, and producing web sites and related interactive screen-based media.

Degrees and Certificates

Completion of the programs gives students the fundamental range of skills needed to work in the multifaceted fields of digital publishing and web media design and production. Cabrillo offers a Certificate of Proficiency and an Associate in Science Degree for both Digital Publishing and Web Media. Students may obtain an A.S. Degree in Digital Publishing or Web Media (by meeting the requirements of either area of concentration). It is not possible to obtain separate A.S. Degrees in both Digital Publishing and Web Media. Separate Certificates of Proficiency may be obtained in both areas of concentration.

Skills Certificates provide basic sets of career improvement skills. Students may earn as many skills certificates as they need to reach their learning goals.

Career Opportunities

The digital publishing and web media fields encompass a wide array of occupations involving almost every sector of society. Jobs and careers are always emerging in the fast-paced, ever-changing world of digital media. Students from the programs qualify for entry-level jobs, internships, and starting their own businesses.

Programming, drawing ability, writing proficiency, and animation skills are especially useful. Employers have specified three important qualities, in order of importance, for digital media job seekers: 1) Talent (inventive and creative with a strong interest in digital media), 2) Teamwork (group communication and problem-solving skills), and 3) Technological aptitude (proficient with digital tools and techniques).

DIGITAL PUBLISHING & WEB MEDIA PROGRAMS

Core Courses Units
DM 1 Introduction to Digital Media 4
DM 4 Digital Graphics using Photoshop and Illustrator 3

Total 7

DIGITAL PUBLISHING PROGRAM

Digital Publishing Required Courses

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<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>DM 2</td>
<td>Introduction to Digital Publishing</td>
<td>3</td>
</tr>
<tr>
<td>DM 6</td>
<td>Advanced Digital Publishing using InDesign</td>
<td>3</td>
</tr>
<tr>
<td>DM 8</td>
<td>Design for Digital Publishing</td>
<td>3</td>
</tr>
<tr>
<td>DM 12</td>
<td>Photoshop Techniques</td>
<td>3</td>
</tr>
<tr>
<td>DM 110</td>
<td>Digital Illustration</td>
<td>3</td>
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</tbody>
</table>

Total 15

Associate in Science Degree in Digital Publishing

Required Core Courses 7
Digital Publishing Required Courses 15
Digital Media Approved Electives and/or Special Studies 12
General Electives 5

Total for A.S. Degree in Digital Publishing 60

Certificate of Proficiency in Digital Publishing

Required Core Courses 7
Digital Publishing Required Courses 15
ENGL 100/1A/1AMC or CABT 157 3

Total for Certificate of Proficiency in Digital Publishing 28

*COMM 2 or COMM 10 may also be used for General Education credit toward partial fulfillment of Area A for the A.S. Degree.

WEB MEDIA PROGRAM

Web Media Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 12</td>
<td>Photoshop Techniques</td>
<td>3</td>
</tr>
<tr>
<td>DM 60A</td>
<td>Web Publishing 1: (X)HTML and CSS Level 1</td>
<td>3</td>
</tr>
<tr>
<td>DM 72</td>
<td>Web Design and Animation using Flash</td>
<td>3</td>
</tr>
<tr>
<td>DM 76</td>
<td>Design for Web Media</td>
<td>3</td>
</tr>
</tbody>
</table>

Total for Web Media Required Courses 12

Associate in Science Degree in Web Media

Required Core Courses 7
Web Media Required Courses 12
Web Media Approved Electives and/or Special Studies 15
General Electives 5

Total for A.S. Degree in Web Media 60

Certificate of Proficiency in Web Media

Required Core Courses 7
Web Media Required Courses 12
ENGL 100/1A/1AMC or CABT 157 3

Total for Certificate of Proficiency in Web Media 25

*COMM 2 or COMM 10 may also be used for General Education credit toward partial fulfillment of Area A for the A.S. degree.

Certificate of Specialization in Web Design

Web Media Certificate of Proficiency 25

Web Design Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>DM 70</td>
<td>Web Design Basics using Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>DM 72</td>
<td>Web Design and Animation using Flash</td>
<td>3</td>
</tr>
<tr>
<td>DM 113</td>
<td>Photoshop Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>DM 173A</td>
<td>Interactive Projects using Flash</td>
<td>3</td>
</tr>
</tbody>
</table>

Total for Certificate of Specialization in Web Design 37
## Certificate of Specialization in Web Development
Web Media Certificate of Proficiency ........................................ 25
Web Development Required Courses
DM 70 Web Design Basics using Dreamweaver ......................... 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 .................. 3
DM 160C Web Publishing 3: Servers, Scripts, and Advanced CSS Level 2 3
Total Certificate of Specialization in Web Development .................. 34

### WEB MEDIA Approved Electives
DM 14 Digital Imaging ............................................................ 3
DM 70 Web Design Basics using Dreamweaver ......................... 3
DM 72 Web Design and Animation using Flash ...................... 3
DM 101 Fundamentals of the Macintosh Operating System ............ 3
DM 110 Digital Illustration ..................................................... 3
DM 113 Photoshop Techniques II ........................................... 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 ............. 3
DM 160C Web Publishing 3: Servers, Scripts, and Advanced CSS Level 2 3
DM 166 Introduction to Information Architecture .................... 3
DM 173A Interactive Projects using Flash ............................... 3
DM 173B Interactive Programming using Flash ....................... 3
DM 190A-ZZ Special Topics in Digital Media ......................... 3
DM 190CD Design and Delivery of an Online Course ................. 3
DM 199C Career Work Experience Education ......................... 3
ENGL 16 Magazine Editing and Publication ............................ 3
ENGL 49A The Language of Film: Film History ........................ 3
ENGL 49B The Language of Film: Special Topics in Film ............ 3
ENGL 59A-Z The Language of Film: Special Topics in Film .......... 3
JOURN 53 Newspaper Production and Copy Editing ................... 3
TA 77 Correlation of the Arts ............................................... 3


### DIGITAL MEDIA Approved Electives
AP 9A Photography ............................................................... 3
AP 45VA Video as Art ........................................................... 1-3
AP 46A Beginning Digital Photography .................................. 3
AP 46B Intermediate Digital Photography .............................. 3
ART 2A Drawing and Composition ......................................... 3
ART 4 Beginning Design: Design and Color ............................. 3
ART 27 Graphic Design ......................................................... 3
ART 28 Lettering/Typography .................................................. 3
ART 33 Screen Printing .......................................................... 3
ART 40GR Studies in Typography ........................................... 1-3
ART 40PB Photographic Images and Books ............................. 1-3
BUS 50 Advertising for Small Business .................................. 3
BUS 89 Starting and Operating an eCommerce Business .............. 3
CABT 110A Computer Keyboarding-Alpha Keys ...................... ½
DM 2 Introduction to Digital Publishing using InDesign ............. 3
DM 3 Design in Society .......................................................... 3
DM 6 Advanced Digital Publishing using InDesign .................... 3
DM 8 Design for Digital Publishing ......................................... 3
DM 9 Digital Prepress ............................................................ 3
DM 12 Photoshop Techniques ............................................... 3
DM 14 Digital Imaging .......................................................... 3
DM 60A Web Publishing 1: (X)HTML and CSS Level 1 .............. 3
DM 70 Web Design Basics using Dreamweaver ......................... 3
DM 72 Web Design and Animation using Flash ....................... 3
DM 74 Animation Illustration Techniques ............................... 3
DM 76 Design for Web Media .................................................. 3
DM 101 Fundamentals of the Macintosh Operating System ......... 3
DM 105 Animation Perspectives ............................................. 3
DM 107 Basic Framemaker ..................................................... 3
DM 110 Digital Illustration .................................................... 3
DM 113 Photoshop Techniques II .......................................... 3
DM 134A Introduction to Digital Video using Final Cut Pro ........... 3
DM 134B Intermediate Video Production using Final Cut Pro ....... 3
DM 134C Digital Video Projects .............................................. 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 .......... 3
DM 160C Web Publishing 3: Servers, Scripts, and Advanced CSS Level 2 3
DM 166 Introduction to Information Architecture .................... 3
DM 171 Intermediate Web Design using Dreamweaver ............... 3
DM 173A Interactive Projects using Flash ............................... 3
DM 173B Interactive Programming using Flash ....................... 3
DM 190A-ZZ Special Topics in Digital Media ......................... 3
DM 190CD Design and Delivery of an Online Course ................. 3
DM 199C Career Work Experience Education ......................... 3
ENGL 16 Magazine Editing and Publication ............................ 3
ENGL 49A The Language of Film: Film History ........................ 3
ENGL 49B The Language of Film: Special Topics in Film ............ 3
ENGL 59A-Z The Language of Film: Special Topics in Film .......... 3
JOURN 53 Newspaper Production and Copy Editing ................... 3
TA 77 Correlation of the Arts ............................................... 3

## CAREER IMPROVEMENT SKILLS CERTIFICATES
### Skills Certificate in Animation
DM 1 Introduction to Digital Media ........................................ 4
DM 4 Digital Graphics using Photoshop and Illustrator .............. 4
DM 72 Web Design and Animation using Flash ....................... 3
DM 74 Animation Illustration Techniques ............................... 3
DM 105 Animation Perspectives ............................................. 3
Total for Skills Certificate in Animation .................................. 16

### Skills Certificate in Digital Imaging
DM 1 Introduction to Digital Media ........................................ 4
DM 4 Digital Graphics using Photoshop and Illustrator .............. 4
DM 12 Photoshop Techniques ............................................... 3
DM 110 Digital Illustration .................................................... 3
DM 113 Photoshop Techniques II .......................................... 3
Total for Skills Certificate in Digital Imaging ......................... 16
Skills Certificate in Digital Video

DM 1  Introduction to Digital Media ......................................... 4
DM 4  Digital Graphics using Photoshop and Illustrator ............. 3
DM 134A Introduction to Digital Video using Final Cut Pro. ......... 3
DM 134B Intermediate Video Production using Final Cut Pro. ....... 3
Total for Skills Certificate in Digital Video .............................. 13

Skills Certificate in eCommerce

DM 1  Introduction to Digital Media ......................................... 4
DM 60A Web Publishing 1: (X)HTML and CSS Level 1 .......... 3
DM 70  Web Design Basics using Dreamweaver ..................... 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 .......... 3
BUS 89 Starting and Operating an eCommerce Business .......... 3
Total for Skills Certificate in eCommerce .................................. 16

Skills Certificate in Print Media

DM 1  Introduction to Digital Media ......................................... 4
DM 2  Introduction to Digital Publishing using InDesign ........ 3
DM 4  Digital Graphics using Photoshop and Illustrator .......... 3
DM 6  Advanced Digital Publishing using InDesign ................. 3
DM 8  Design for Digital Publishing ........................................ 3
Total for Skills Certificate in Print Media ............................... 16

Skills Certificate in Screen Media

DM 1  Introduction to Digital Media ......................................... 4
DM 4  Digital Graphics using Photoshop and Illustrator .......... 3
DM 60A Web Publishing 1: (X)HTML and CSS Level 1 ........... 3
DM 72  Web Design and Animation using Flash ...................... 3
DM 76  Design for Web Media ................................................ 3
Total for Skills Certificate in Screen Media ............................. 16

Skills Certificate in Web Design

DM 1  Introduction to Digital Media ......................................... 4
DM 60A Web Publishing 1: (X)HTML and CSS Level 1 .......... 3
DM 72  Web Design and Animation using Flash ...................... 3
DM 76  Design for Web Media ................................................ 3
DM 173A Interactive Projects using Flash ......................... 3
Total for Skills Certificate Web Design .................................... 16

Skills Certificate in Web Production

DM 1  Introduction to Digital Media ......................................... 4
DM 4  Digital Graphics using Photoshop and Illustrator .......... 3
DM 60A Web Publishing 1: (X)HTML and CSS Level 1 .......... 3
DM 70  Web Design Basics using Dreamweaver ..................... 3
DM 72  Web Design and Animation using Flash ...................... 3
Total for Skills Certificate in Web Production ........................ 16

Skills Certificate in Web Publishing

DM 1  Introduction to Digital Media ......................................... 4
DM 60A Web Publishing 1: (X)HTML and CSS Level 1 .......... 3
DM 70  Web Design Basics using Dreamweaver ..................... 3
DM 160B Web Publishing 2: Graphics and CSS Level 2 .......... 3
DM 160C Web Publishing 3: Servers, Scripts, and Advanced CSS 3
Total for Skills Certificate in Web Publishing ........................ 16

Digital Media Courses

DM 1  Introduction to Digital Media ................................. 4 units; 3 hours Lecture, 6 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces digital media from historical and contemporary perspectives, emphasizing fundamentals of design, the production process, and creative technology. Topics include: concepts, trends, content, methods, forms, careers, and delivery of digital media for print, screen display, and interactivity. Portions of the course will be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

DM 2  Introduction to Digital Publishing using InDesign ....... 3 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers digital page design and layout, typographic fundamentals, and precise formatting to produce print-ready documents and publications. Taught on Macintosh. Adaptable to Windows.
Transfer Credit: Transfers to CSU.

DM 3  Design in Society .................................................. 3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the role of design in shaping the environment, utilitarian objects, and communication for commerce, culture, and entertainment. Portions of the course may be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
DM 4  
**Digital Graphics Using Photoshop and Illustrator**  
3 units; 3 hours Lecture, 6 hours Laboratory  
Prerequisite: DM 1 or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Introduces creation and editing of digital graphics, illustrations, and photographs for pre-press production and screen-based media. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

DM 6  
**Advanced Digital Publishing using InDesign**  
3 units; 3 hours Lecture, 6 hours Laboratory  
Prerequisite: DM 2 or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Covers the use of InDesign to create advanced print projects, focusing on design principles, typography, style sheets, color, graphic formats, long documents, pre-press requirements, and efficient working techniques. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

DM 8  
**Design for Digital Publishing**  
3 units; 3 hours Lecture, 5 hours Laboratory  
Prerequisite: DM 2 and DM 4; or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Surveys graphic design and communication arts careers in digital media, covers practical application of design principles for print-based and cross-media production, and focuses on logo and portfolio design. Uses page layout and graphics software to complete exercises and projects. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

DM 9  
**Digital Pre-press**  
3 units; 2 hours Lecture, 6 hours Laboratory  
Prerequisite: DM 6 and DM 8 or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Covers planning, design and production of community clients' print projects; including: pre-press file management, bidding, 4-color, ink, paper, output, proofing, professional ethics, and industry standards. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a distance format.  
*Transfer Credit:* Transfers to CSU.

DM 12  
**Photoshop Techniques**  
3 units; 3 hours Lecture, 6 hours Laboratory  
Prerequisite: DM 4 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 3 times.  
Covers intermediate Photoshop techniques and topics including: image manipulation, adjustment layers, resolution, masks, channels, retouching, and colorization. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

DM 14  
**Digital Imaging**  
3 units; 3 hours Lecture, 6 hours Laboratory  
Prerequisite: DM 12 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Covers advanced Photoshop and Illustrator techniques to create images using digital tools to reproduce traditional drawing and painting methods including: use of drawing tablet, digital camera, lighting, color and perspective. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

DM 60A  
**Web Publishing 1: (X)HTML and CSS Level 1**  
3 units; 2 hours Lecture, 6 hours Laboratory  
Recommended Preparation: DM 1 or equivalent; eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Presents planning and production of web sites including: text, graphics, hand-coded (X)HTML, basic cascading style sheets (CSS Level 1), and (X)HTML and CSS validation. Taught on Macintosh and Windows. Portions of the course will be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.

DM 70  
**Web Design Basics using Dreamweaver**  
3 units; 2 hours Lecture, 6 hours Laboratory  
Prerequisite: DM 1 and DM 60A or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Applies Dreamweaver software to combine text and graphics to create, edit, and manage web sites. Students must know HTML and be able to create and edit vector-based and bitmapped graphics. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU.
DM 72
Web Design and Animation Using Flash
3 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches Flash techniques used to create web sites and multimedia art with interactivity and motion. Emphasis on well designed, visually integrated web sites using scalable vector graphics, animation, and sound in stand-alone web sites or multimedia presentations. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 74
Animation Illustration Techniques
3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: DM 4 and DM 72 or equivalent skills.
Recommended Preparation: ART 4; Eligibility for ENGL 100 and READ 100.
Studies animation illustration techniques using traditional media and digital tools for imagery, storyboards, characters, and audio in production of animation projects. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 76
Design for Web Media
3 units; 3 hours, 5 hours Laboratory
Prerequisite: DM 4 and DM 60A and DM 72 or equivalent skills.
Recommended Preparation: DM 70 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Explores the visual design process for web media focusing on design principles and elements, creative problem solving, and online portfolios. Topics include: interactive design and the design process, defining your project, content organization, effective screen design, navigation, interactive controls, visual identity, usability, functionality, and accessibility. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 101
Fundamentals of Macintosh Operating Systems
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers the use, installation, and customization of the Macintosh operating system; includes hard disk management, virus control, interfaces, fonts, and sounds.

DM 105
Animation Perspectives
3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies historic, cultural, and aesthetic aspects of animation from conceptual and practical perspectives; including storytelling, production, media, methods, sound, technologies, trends, and significant producers. Portions of the course may be taught in a Distance-Learning Format.

DM 107
Basic Framemaker
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces FrameMaker digital publishing system, widely used by technical writers. Includes document formatting and editing, file management, book building, graphics importing and positioning, tables creation and formatting, hypertext documents, PDF files, and HTML conversion for web publishing.

DM 110
Digital Illustration
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Presents use of vector-based illustration software for digital publishing, web graphics, and screen media projects. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.
DM 113
Photoshop Techniques II
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 12 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers advanced Photoshop techniques and topics including: levels and curves, alpha channels, filters, vector masks, lighting effects, and perspective. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.

DM 134A
Introduction to Digital Video using Final Cut Pro
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 1 or equivalent.
Recommended Preparation: DM 4 or equivalent; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces digital video production procedures and techniques, including: audio and video capture, nonlinear editing, and output for inclusion in interactive multimedia projects for use in CD ROM, DVD, and various network environments, including the web. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.

DM 134B
Intermediate Video Production using Final Cut Pro
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 134A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times. Due to frequent changes in the digital video field, students will need to learn new production methods and software.
Continues studies of the digital video production process at the intermediate level, addressing: story concepts, script, scenes, storyboards, shooting, lighting, effects, editing and DVD authoring. Taught on Macintosh. Adaptable to Windows. Portions of the course may be taught in a Distance-Learning Format.

DM 134C
Digital Video Projects
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 134B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Concentrates on post-production techniques and new video methods to produce intermediate to advanced interdisciplinary collaborative projects.

DM 160B
Web Publishing 2: Graphics and CSS Level 2
3 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: DM 60A and DM 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches intermediate Web publishing techniques using hand-coded (X)HTML and CSS Level 2, focusing on web standards, accessibility, dynamic HTML (DHTML), server side includes, using JavaScripts and CGI scripts, processing interactive forms, and search engines. Taught on Macintosh. Adaptable to Windows. Portions of the course will be taught in a Distance-Learning Format.
EARLY CHILDHOOD EDUCATION

Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Fall Semester: Ofelia García*, Program Chair, (831) 477-5601
Spring Semester: Michele Chao*, Program Co-Chair, (831) 477-3502 and Jean Gallagher-Heil, Program Co-Chair, (831) 479-5015
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6354 for more information
http://www.cabrillo.edu/programs
*Spanish speaking

Early Childhood Education Occupational Program

This program provides the student with the course work required by the State of California Department of Social Services and the Department of Education Child Development Permit which enables the student to be employed as a children’s center teacher or administrator in a state-funded program, or public or private setting. Contact the Early Childhood Education Department for an appointment with a faculty program advisor and the counseling office for further program requirements.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31/131</td>
<td>4</td>
<td>Child Growth and Development</td>
</tr>
<tr>
<td>ECE 32</td>
<td>3</td>
<td>Child, Youth, Family, and Community</td>
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<tr>
<td>OR</td>
<td></td>
<td></td>
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<tr>
<td>ECE 142</td>
<td></td>
<td>Niño, familia, y comunidad</td>
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<tr>
<td>ECE 51</td>
<td>3</td>
<td>Principles of Working with Young Children</td>
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<tr>
<td>ECE 53</td>
<td>3</td>
<td>Introduction to Curriculum for the Young Child</td>
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<tr>
<td>ECE 53L</td>
<td>½</td>
<td>Curriculum Materials Lab</td>
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<tr>
<td>ECE 54 &amp; 54L</td>
<td>5</td>
<td>Early Childhood Practicum Lecture &amp; Lab</td>
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<td>OR</td>
<td></td>
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<tr>
<td>ECE 168</td>
<td>3</td>
<td>Child Care Practicum</td>
</tr>
<tr>
<td>ECE 135</td>
<td>4</td>
<td>Infant &amp; Toddler Program Development</td>
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<td>OR</td>
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<tr>
<td>ECE 163</td>
<td>3</td>
<td>Advanced Curriculum for the Young Child</td>
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<tr>
<td>ECE 146</td>
<td>2</td>
<td>The Child with Special Needs in the Child Care Program</td>
</tr>
<tr>
<td>ECE 150</td>
<td>1</td>
<td>Early Care and Education</td>
</tr>
<tr>
<td>ECE 152</td>
<td>3</td>
<td>Anti-Bias Approaches for Working with Young Children</td>
</tr>
<tr>
<td>ECE 156A-L</td>
<td>1</td>
<td>Special Curriculum Topics</td>
</tr>
<tr>
<td>ECE 158</td>
<td>3</td>
<td>Working with Families</td>
</tr>
</tbody>
</table>

Special Topics in Digital Media are courses designed to offer skill development and specialized knowledge in digital media, digital publishing and multimedia. The special areas will be announced, described and given their own course designations and titles in the Schedule of Classes.
ECE 159  Health, Safety and Nutrition Issues in the Child Care Setting .......................... 3
ECE 159L  Health Guidelines, First Aid, and CPR in the Child Care Setting* ................... ½

*ECE 159L is a corequisite for ECE 159 and may be met with proof of CPR certification.

Associate in Science Degree in Early Childhood Education
General Education ................................................. 21
Early Childhood Education Core Courses .................. 32½-36
Electives ............................................................. 9-½
Total for A.S. Degree in Early Childhood Education 60

Certificate of Proficiency in Teaching
Early Childhood Education Core Courses ............... 32½-35½
ENGL 100/1A/1AMC ................................................. 3
Total for Certificate of Proficiency 35½-39

Certificate of Proficiency in ECE Administration
ECE Certificate of Proficiency in Teaching .................. 35½-39
ECE 157A Administration & Supervision of Children’s Programs 3
ECE 157B Administration & Supervision of Children’s Programs 3
ECE 157C Supervising Adults in the Child Care Setting .......... 2
Total for Certificate of Proficiency 43½-47

California Child Development Permit Specialization and Cabrillo ECE Specialization Certificates
The Cabrillo and State specializations require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53), plus six units of additional specialized course work.

Specialization Certificate in Anti-Bias Curriculum
The Cabrillo and State specializations require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53), plus six units of additional specialized course work.
ECE 152  Anti-Bias Approaches for Working with Young Children .................................. 3
AND (for a combined total of 6 units)
ECE 145  Peace Education in Children’s Literature ............................................. 1-3
ECE 146  The Child with Special Needs in the Child Care Setting ......................... 2
ECE 161A-Z Child Development and Interaction Skills in Early Childhood with focus on anti-bias issues .................................................. 1-3
ECE 162A-Z Special Topics in Curriculum Development with focus on anti-bias issues .................................................. 1-3

Specialization Certificate Children’s Literacy Curriculum
The Cabrillo and State specializations require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53), plus six units of additional specialized course work.
ECE 144A  Early Steps to Reading Success I ............................................. 1
ECE 144B  Early Steps to Reading Success II ............................................. 2
ECE 144C  Early Literacy Foundations for Preschool Children ............................. 3
ECE 145  Peace Education and Children’s Literature ............................................. 1-3
ECE 156L  Fostering First and Second Language Development .......... 1-3
ENGL 20B  Children’s Literature ...................................................... 3
ECE 162A-Z Special Topics in Curriculum Development with special focus on literacy and/or language curriculum ..................................... 1-3

Specialization Certificate in Curriculum Planning
The Cabrillo and State specializations require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53), plus six units of additional specialized course work.
ECE 163  Advanced Curriculum for the Young Child ............................................. 3
AND (for a combined total of 6 units)
ECE 145  Peace Education and Children’s Literature ............................................. 1-3
ECE 156A-L Curriculum for the Young Child ............................................. 3
ECE 162A-Z Special Topics in Curriculum Development with focus on a specific curriculum area ..................................... 1-3
ECE 64  Children’s Art ...................................................... 3

Specialization Certificate in Infant/Toddler Care
The Cabrillo and State specializations require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53), plus six units of additional specialized course work.
ECE 133  Understanding Infant Development ............................................. 1
ECE 133L  Infant Development and Observation Lab. ...................................... 1 or 2
ECE 135  Infant and Toddler Program Development ..................................... 4
ECE 139A-Z Special Topics in Infant/Toddler Development and Care ..................................... 2 or 3

Specialization Certificate in Working with Culturally Diverse Families
The Cabrillo and State specializations require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53), plus six units of additional specialized course work.
ECE 158  Working with Families ...................................................... 3
ECE 152  Anti-Bias Approaches for Working with Young Children .................................. 3

Specialization Certificate in Bilingual Spanish English Teaching
The Cabrillo and State specializations require 24 units of ECE to include ECE 31/131, ECE 32/142, ECE 51, and ECE 53), plus six units of additional specialized course work.
ENGL 100  Elements of Writing ...................................................... 3
SPAN 4  Intermediate Spanish ...................................................... 4
OR
SPAN 17  Elementary Spanish for Spanish Speakers ..................................... 4
**Skills Certificate in Spanish/English Early Childhood Teaching**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31/131</td>
<td>Child Growth and Development</td>
<td>4</td>
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<tr>
<td>ECE 32</td>
<td>Child, Youth, Family, and Community</td>
<td>3</td>
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<tr>
<td>ECE 142</td>
<td>Niño, familia, y comunidad</td>
<td>3</td>
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<td>ECE 51</td>
<td>Principles of Working with Young Children</td>
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<td>ECE 53</td>
<td>Introduction to Curriculum for the Young Child</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Plus English competency at ENGL 100 level

AND

Spanish Competency at SPAN 4 level,

OR

Spanish Competency at SPAN 17 level

Total for Skills Certificate: 13-17

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### Early Childhood Education Courses

**ECE 31**

**Child Growth and Development**

4 units; 4 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100, when taught in English, or SPAN 16, and concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.

Examines development from conception through age 6 in the context of family, social identity, and culture with an emphasis on non-judgmental observation. Focuses on the interaction between biology and environment. Critical, analytical written work is the primary means of evaluation. Writing assignments for ECE 31 differ from those for ECE 131 in scope and complexity. Early in the semester, instructors define the writing assignment requirement for ECE 31 credit and ECE 131 credit. During the add/drop period the student may select either the 31 or 131 option. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. Meets a core course requirement for Social Services Licensing for the California Child Development Permit. In combination with ECE 33, this course fulfills area E of the CSU general education pattern.

Transfer Credit: Transfers to CSU. Transfers to UC. To meet CSU Area E requirement, both ECE 31 and 33 must be taken. ECE 31 may be used to meet Area D or E requirement, but not both.

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**ECE 32**

**Child, Youth, Family, and Community**

3 units; 3 hours Lecture

Prerequisite: ECE 31 or ECE 131.

Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Studies the shaping power of family, peer groups, schools, culture, and socioeconomic class on children and youth. Examines internal functioning of family and society’s impact on families. Meets core course requirement for Social Services Licensing, for the California Child Development Permit and for the School-Age Emphasis Permit. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

Transfer Credit: Transfers to CSU. Transfers to UC with limits: ECE 31, 32, 33 and PSYCH 8 combined: maximum credit–1 course.

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**ECE 33**

**Child Development: School Age and Adolescence**

2 units; 2 hours Lecture

Recommended Preparation: ECE 31 or ECE 131; eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Covers the major theories of development during school-age and adolescence, studying the milestones of physical, social-emotional, and cognitive development in the specific context of today’s families and society. Focuses on the developmental changes that characterize the transition from childhood to adulthood. Studies characteristics of these periods that require major shifts in how adults think about and interact with school-age children and adolescents. May be offered in a Distance-Learning Format and/or in a Bilingual Spanish/English Format. In combination with ECE 31, this course fulfills area E of the CSU general education pattern.

Transfer Credit: Transfers to CSU. Transfers to UC pending review. To meet CSU Area E requirement, both ECE 31 and 33 must be taken.

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**ECE 51**

**Principles of Working with Young Children**

3 units; 3 hours Lecture

Prerequisite: ECE 31 or ECE 131.

Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Studies methods by which adults can support the healthy development of preschool children both as individuals and as members of groups. Appropriate for child care professionals and for parents. Assignments require access to young children in group settings. Meets a core course licensing requirement for Social Services Licensing and the California Child Development Permit. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

Transfer Credit: Transfers to CSU.

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**ECE 53**

**Introduction to Curriculum for the Young Child**

3 units; 3 hours Lecture

Corequisite: ECE 53L.

Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Examines a teacher’s role in supporting learning and development in young children through age six emphasizing language and literacy, sensory learning, art and creativity, math, and the essential role of play. Meets a core requirement for Social Services Licensing and the Child Development Permit. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

Transfer Credit: Transfers to CSU.
ECE 53L
Curriculum Materials Lab
½ units; 1 hour Laboratory
Prerequisite or corequisite: ECE 53.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Provides support, in a lab setting, for students enrolled in ECE 53 to develop, design, and prepare learning materials for use with young children through six years of age.
*Transfer Credit: Transfers to CSU.*

ECE 54
Early Childhood Education Practicum Lecture
1 - 3 units; 1 hour Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: ECE 54L, or ECE 168; completion of or concurrent enrollment in ECE 51 and ECE 53.
Recommended Preparation: COMM 6; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Explores the relationship between theory and practice in a developmental classroom setting to support supervised student teaching for ECE students teaching children under the age of six. Focus is on the competencies based on the Associate Teacher level of the California Child Development Permit.
*Transfer Credit: Transfers to CSU.*

ECE 54L
Early Childhood Education Practicum Lab
2 - 5 units; 6 hours Laboratory
Prerequisite: ECE 31 or ECE 131; Corequisite: ECE 54; completion of or concurrent enrollment in ECE 51 and ECE 53.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Applies principles of classroom organization and management to building healthy, caring relations with and between young children by supporting student teachers under the supervision of a Master Teacher. Focus is on the competencies based on the Associate Teacher level of the California Child Development Permit.
*Transfer Credit: Transfers to CSU.*

ECE 64
Children’s Art
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the developmental sequence of children’s art and teaching implications for children 2 to 13 years of age through the exploration of various media. Focuses on using clay, watercolor, tempera, drawing materials, block printing, and collage. Designed for preschool teachers, elementary teachers, and parents.
*Transfer Credit: Transfers to CSU.*

ECE 131
Child Growth and Development
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100, when taught in English, or SPAN 16, and concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Examines development from conception through age 6 in the context of family, social identity, and culture with an emphasis on non-judgmental observation. Focuses on the interaction between biology and environment. Critical, analytical written work is the primary means of evaluation. Writing assignments for ECE 131 differ from those for ECE 31 in scope and complexity. Early in the semester instructors define the writing assignment requirement for ECE 31 credit and ECE 131 credit. During the add/drop period the student may select either the 31 or 131 option. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. Meets a core course requirement for Social Services Licensing and for the California Child Development Permit.

ECE 132
Ages and Stages: An Overview of Early Childhood Development
1 - 2 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100, when taught in English, or SPAN 16, and concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Introduces the development of children from birth through age 6 in a context appropriate for parents, foster parents, childcare providers, and beginning ECE students. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 133
Understanding Infant Development
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Examines how infants learn, grow, develop relationships, think, learn language, develop physical skills, share culture, and are supported in their development by their families and caregivers. Does not meet Social Services Licensing requirements for infant/toddler care but may be used in conjunction with ECE 135 for the 6-unit Infant-Toddler Specialization Certificate. May be offered in a Distance-Learning Format and/or Bilingual Spanish/English Format.

ECE 133L
Infant Development and Observation Lab
1 - 2 units; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatability: May be taken 4 times.
Examines infant development through observation and discussion in a lab format in which infants, parents, and caregivers participate together. Focuses on how infants develop social awareness, establish trust, develop physical and cognitive skills. Discussion will also include issues specific to the adult’s life as a parent. Offered for credit/no credit only.
ECE 134
Understanding Toddler Development
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Examines how toddlers learn and grow, explore and think, learn language, develop physical skills, explore relationships and autonomy, share and learn culture. Studies the role of family in supporting toddler development and how relationships and roles change in the family when babies grow into toddlers. Does not meet Social Services Licensing requirements for infant/toddler care but may be used in conjunction with ECE 135 for the 6-unit Infant-Toddler Specialization Certificate. May be offered in a Distance-Learning and/or Bilingual English/Spanish Format.

ECE 134L
Toddler Development and Observation Lab
1 - 2 units; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatability: May be taken 4 times.
Examines toddler development in a format designed for toddlers, parents, and caregivers to participate together using observation, discussion, and reading. Focuses on how toddlers establish autonomy and develop physical, cognitive, and social skills. Discussion will also include issues specific to the adults’s life as a parent. May be offered in a Bilingual English/Spanish format.

ECE 135
Infant and Toddler Program Development
4 units; 4 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Teaches principles for planning developmentally appropriate and culturally responsive group care of infants and toddlers to promote the development of cognitive, language, emotional, physical, and social skills. Topics include: primary care, individualized scheduling, staffing ratios and group size, responsive care, caregiving as curriculum, environments for care and learning, culturally appropriate caregiving, parent/teacher partnerships, and inclusion of children with special needs. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. Meets requirements for Social Services Licensing for infant/toddler care. May be used in conjunction with ECE 133, 133L, 134, 134L, and ECE 139A-Z for the 6-unit Infant-Toddler Specialization Certificate.

ECE 136
Planning Programs for School Age Children
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 33; Eligibility for ENGL 100 and READ 100.
Focuses on planning, implementing, and evaluating before and after school-care programs that build competence, self-esteem, and community in developmentally appropriate ways in a variety of settings. May be used for the California Child Development School-Age Emphasis Permit.

ECE 137A
Parents in the Cabrillo Children’s Center:
Focus on Infants and Toddlers
½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatability: May be taken 4 times.
Teaches the principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on understanding specific developmental stages of five-month to three-year-old children. May be offered in a bilingual Spanish/English format. Open entry/open exit. Students may register through the 12th week.

ECE 137B
Parents in the Cabrillo Children’s Center:
Focus on Preschoolers
½ units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatability: May be taken 4 times.
Teaches the principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on understanding specific developmental stages of three- to five-year-old children. May be offered in a bilingual Spanish/English format. Open entry/open exit. Students may enroll through the 12th week.

ECE 137C
Parents in the Cabrillo Children’s Center:
Advanced Seminar
½ units; 1 hour Laboratory
Prerequisite: ECE 137A or ECE 137B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Focuses on principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on advanced topics of the child in the center and in the home. Open entry/open exit. Students may enroll through the 12th week.
ECE 138A
Communication and Positive Discipline with 2- to 5-Year Olds
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Explores effective approaches to communication and problem solving with two- to five-year-olds that build self-esteem and protect the dignity of both children and adults. Focuses on encouraging cooperation and setting age appropriate and consistent limits. Appropriate for parents, foster parents, and family childcare home providers. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. May be offered in a Distance-Learning Format.

ECE 138B
Communication and Positive Discipline with School Age Child
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Explores effective approaches to communication and problem solving with 6- to 12-year-olds that build competence, encourage cooperation, and establish age appropriate limits. Appropriate for after-school caregivers, parents, foster parents, and family childcare providers. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. May be offered in a Distance-Learning Format. May be used for the California Child Development School-Age Emphasis Permit.

ECE 139A-Z
Special Topics in Infant/Toddler Development and Care
½ - 3 units; ½ hour Lecture
Recommended Preparation: ECE 31 or 131 and or current experience as a caregiver for infants and toddlers; Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatable: May be taken 4 times. Each special topic maybe taken one time.

Provides intensive study of some aspect of infant and/or toddler development for parents, caregivers, and personnel in childcare programs. Course content will vary with each offering, as will prerequisites. May be used in conjunction with ECE 135 for the 6-unit Infant-Toddler Specialization Certificate. May be offered in a Distance-Learning Format and/or a Bilingual Spanish/English Format.

ECE 142
Nino, familia, y comunidad
3 units; 3 hours Lecture
Prerequisite: ECE 31 or 131.
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English; concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Studies the influence of family, peer groups, school, culture, and socioeconomic class on children and youth. Examines internal family dynamics and the impact on the family of social mores and institutions. Meets a core course licensing requirement for Social Services Licensing and Child Development Permit requirements. May also be taught in a Bilingual Spanish/English Format.

ECE 144A
Early Steps to Reading Success I
1 unit; 1 hour Lecture
Recommended Preparation: ECE 31 or 131; ECE 53; eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Provides theoretical framework and practical strategies for preparing young children to become successful writers and readers. Topics include: developmental continuum of emergent literacy; the role of expressive language; how play supports literacy development; and how to select children’s books. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. May be offered in a Distance-Learning Format.

ECE 144B
Early Steps to Reading Success II
2 units; 2 hours Lecture
Recommended Preparation: ECE 144A; eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Teaches strategies to create a classroom that supports the development of reading and writing in young children through age-appropriate learning outcomes and goals that meet the State of California guidelines for Early Literacy. Topics will include: "scaffolding" language curriculum; connecting play to language enrichment; connecting literacy curriculum to children’s emergent ideas; developing skills to teach shared reading, independent reading, book handling, phonemics, alphabetic learning, and emergent writing. Focus on building a literacy program based on the child’s home culture and language while working with parents to support their children’s emergent literacy. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate. May be offered in a Distance-Learning Format.
ECE 144C
Early Literacy Foundations for Preschool Children
3 units; 3 hours Lecture
Prerequisite: Completion of 12 core units (ECE 31 or 131; ECE 32 or 142; ECE 51, and ECE 53) and currently working as a teacher/caregiver in a program for preschool age children.
Recommended Preparation: Eligibility for ENGL 100 and READ 100, when taught in English; concurrent enrollment in ESL 201A or 201B, or ESL 220A or ESL 220B, or higher ESL level when taught in Spanish.

Focuses on using the SEEDS approach to help children, 3 to 5 years old, develop emergent literacy skills using a “Sensitive, Encouraging, Educating, and Demonstrating” teaching approach. Emphasizes methods to enhance children’s vocabulary and conversation; print, book, and letter knowledge; and phonological awareness. Course includes: classroom, lab and field experience. May be offered in a Bilingual Spanish/English Format.

ECE 145
Peace Education and Children’s Literature
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Utilizes children’s literature to support peace education curriculum for young children. Focuses on the strands of the Peace Education Library: development of self esteem and connection to others; joy in human diversity; love and care of nature; imagination and delight; creative conflict resolution and a sense of justice; and global awareness.

ECE 146
The Child with Special Needs in the Child Care Program
2 units; 2 hours Lecture
Prerequisite: ECE 31 or ECE 131.

Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Examines issues and practices that support all children, teachers, and parents in creating an inclusive program for children with special needs. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 147
Creating Healthy Adult Relationships in the Child Care Setting
1 - 3 units; 1 hour Lecture
Prerequisite: ECE 31 or ECE 131.

Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Focuses on adult/adult relationships in the child care and education setting including effective communication, relationship maintenance, and conflict resolution strategies with staff and parents. May be offered in a Bilingual Spanish/English Format.

ECE 149
Early Care and Education
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Explores the field of early care and education including history, ethics, current issues and practices, social/political context, credentials and employment, advocacy, and reflective teaching practices. May be offered in a Distance-Learning Format. May also be offered in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 152
Anti-Bias Approaches for Working with Young Children
3 units; 3 hours Lecture
Prerequisite: ECE 32 or ECE 142.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches approaches that help young children and the adults who care for them to embrace human diversity, recognize social bias, and take action on their own and others’ behalf. Used in conjunction with ECE 158 for the Specialization Certificate in Working with Culturally Diverse Families.

ECE 156A
Curriculum for the Young Child: Life Science
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.

Studies developmentally appropriate practices for planning a curriculum for young children around the plant and animal life in our environment, based on ecological and scientific principles. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156B
Curriculum for the Young Child: Physical Science
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.

Studies developmentally appropriate practices for creating curriculum for young children exploring the physical world. Topics may include: water, electricity, magnetism, and elements of basic physics. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.
ECE 156C
Curriculum for the Young Child: Social Knowledge
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.
Explores social knowledge as it manifests itself in young children's natural interests and in their emerging understanding of: self-concept; valuing diversity; interdependency of humans; cultures and the similarities and diversity of people everywhere. This class may explore curriculum themes such as: “food and cooking”, “community workers”, “families.” May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156D
Large Motor and Movement Curriculum
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatability: May be taken 2 times.
Studies movement and large motor activities appropriate for the development of children’s coordination and sense of rhythm. Explores use of both the classroom and the outdoors as environments for large muscle development. May also be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156E
Exploring Music with the Young Child
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.
Studies appropriate developmental practices for incorporating music with young children including singing, chanting, and making music. Demonstrates methods for finding and recognizing developmentally appropriate songs and chants and developing a resource file. Appropriate for teachers, caregivers, and parents. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156F
Teaching Creative Movement to Young Children
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.
 Studies appropriate practices for creative movement and body awareness experiences for children 2 to 12 years of age, emphasizing spontaneity and expression. Examines the effect of creative movement on both artistic and cognitive development. Appropriate for teachers, child care providers, and parents. May be taught in Spanish as part of the Bilingual Spanish/ English ECE teacher skills certificate.

ECE 156G
Circle Time Activities
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.
Introduces concepts and strategies for choosing and presenting developmentally appropriate circle times with young children. May include music, creative movement, games, group problem solving, language activities, and science experiences, so that children will participate and learn with interest and delight. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 156H
Cooking Curriculum for Young Children
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.
Studies developmentally appropriate practices for cooking with young children to support sensory/motor learning; math and science concepts; emergent literacy and language, in culturally relevant curriculum. Learn how to plan and prepare a child-safe cooking environment; how to create healthy and nutritious, simple, good tasting recipes; and how to implement a cooking curriculum using everyday utensils and appliances. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.
ECE 156I
Persona Dolls in Curriculum for Young Children
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.
Studies developmentally appropriate practices for incorporating persona dolls to support children’s concept development, language, social skills, problem solving skills, and to help children explore and understand humans’ similarities and differences. Students will create a persona doll and learn culturally and age-appropriate activities and stories that enhance creativity and teach pro-social values.

ECE 156J
Superhero and Weapon Play
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Studies developmentally appropriate practices for understanding and responding to young children’s superhero and weapon play. Focuses on the influence of culture, gender, role expectations, and children’s development on play. Studies strategies for guiding play while emphasizing positive aspects and guidance of superhero and weapon play.

ECE 156L
Fostering First and Second Language Development
1 - 3 units; 1 hour Lecture
Recommended Preparation: ECE 31 or ECE 131; ECE 53; eligibility for ENGL 100 and READ 100, when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level, when taught in Spanish.
Repeatability: May be taken 2 times.
Presents practical ways for teachers and parents to support the language development of young children in bilingual or multilingual settings through curriculum development and authentic assessment. Focuses on similarities and differences between first and second language acquisition; the relationship of language development to beginning literacy; and the impact of partnerships between school and family on children’s language development and sense of self. May be offered in Distance-Learning Format and/or in a Bilingual Spanish/English Format.

ECE 157A
Administration and Supervision of Children’s Programs
3 units; 3 hours Lecture
Prerequisite: Completion of 12 core units (ECE 31 or 131; 32 or 142; 51 and 53) for licensing or permit requirement and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Presents an overview of quality programs for children, with emphasis on: regulations and policy; promotion and enrollment; personnel; financial management; space and equipment; and relationships with families. Meets the requirement for three units in Program Administration for Social Services Licensing and three of the required six units for the Site Supervisor level of the California Child Development Permit Matrix.

ECE 157B
Administration and Supervision of Children’s Programs
3 units; 3 hours Lecture
Prerequisite: Completion of 12 core units (ECE 31 or 131; 32 or 142; 51 and 53) for licensing or permit requirement and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Emphasizes the leadership role of the director in the development of program and personnel evaluation procedures that reflect the goals of a program. Topics include goal-setting, team-building, assessment systems, record keeping, and cost-benefit analysis. Meets the requirements for three units Program Administration for Social Services Licensing and three of the required six units for the Site Supervisor level of the California Child Development Permit.

ECE 157C
Supervising Adults in the Childcare Setting
2 units; 2 hours Lecture
Prerequisite: Completion of 12 core units (ECE 31 or 131; 32 or 142; 51 and 53) for licensing or permit requirement and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores methods and principles of supporting and supervising adults in early childhood settings, emphasizing the role of experienced teachers mentoring new teachers. Required for entry into the Mentor Teacher program. Meets the Adult Supervision course requirement for the California Child Development Permit.
ECE 158
**Working With Families**
3 units; 3 hours Lecture
Prerequisite: ECE 51 or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Focuses on building strong partnerships between teachers and families using the family-centered care model: two-way communication and decision making; honoring diversity; acknowledging family and teacher expertise; and building networks of support. Studies the benefits of the partnership for children, families, teachers, and programs, and emphasizes the development of the specific competencies for parent/teacher communications both written and verbal, problem-solving, parent meetings, parent/teacher conferences, work days, and co-ops. Also appropriate for family childcare home providers. May be offered in a Bilingual Spanish/English Format as part of Spanish/English Bilingual Specialization Certificate. Used in conjunction with ECE 152 for the Specialization Certificate in Working with Culturally Diverse Families.

ECE 159
**Health, Safety, and Nutrition Issues in the Child Care Setting**
3 units; 3 hours Lecture
ECE 159L OR current CPR and First Aid Certification by the American Red Cross. Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Teaches essential information and skills regarding the health, safety, and nutritional needs of young children in a format appropriate for teachers, childcare providers, parents, foster parents, and others who care for young children. Meets Health and Safety requirement for Social Services and Foster Parent Licensing. May be offered in a Distance-Learning Format or in Spanish as part of Spanish/English Bilingual Specialization Certificate.

ECE 159L
**Health Guidelines, First Aid, and CPR in the Child Care Setting**
½ units; ½ hours Laboratory
Prerequisite: ECE 159 or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Provides hands-on training for parents, teachers, and caregivers in infant, child, and adult CPR and first aid in order to obtain certification by the American Red Cross. May be offered in Spanish as part of Spanish/English Bilingual Specialization Certificate.

ECE 161A-Z
**Child Development and Interaction Skills in Early Childhood**
½ - 3 units; ½ hours Lecture
Recommended Preparation: ECE 31 or ECE 131; current experience as a caregiver for children; eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Repeatability: May be taken 4 times. Each special topic maybe taken one time.

Offers a series of courses in selected areas of child development with an emphasis on interaction, communication, and guidance skills for those who care for children. Course content will vary with each offering, as will prerequisites. Topics may include: infancy development, preschool development, communication skills, and family dynamics. May be offered in a Distance-Learning Format and/or a Bilingual Spanish/English Format.

ECE 162A-Z
**Curriculum Development in Programs for Young Children**
½ - 4 units; ½ hours Lecture
Recommended Preparation: ECE 31 or 131; ECE 52; current experience as a caregiver for children; eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.

Repeatability: May be taken 4 times. Each special topic maybe taken one time.

Offers a series of courses focusing on selected aspects of child development with an emphasis on specific curriculum topics. Course content will vary with each offering, as will prerequisites. Examples of topics include: music, math, language, pre-reading and literacy, science, art, and health. Appropriate for teachers, caregivers, and personnel of preschool and childcare programs. May be offered in a Distance-Learning Format and/or a Bilingual Spanish/English Format.

ECE 163
**Advanced Curriculum for the Young Child**
3 units; 3 hours Lecture
Prerequisite: ECE 31/131; ECE 53; ECE 53L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores theoretical and practical considerations for developing integrated and emergent curriculum aligned with current early learning standards in the areas of science, technology, social studies, language, and the arts.

ECE 168
**Child Care Practicum**
½ - 4 units; ½ hours Laboratory
Prerequisite: Prerequisite: ECE 31 or ECE 131.
Corequisite: Completion of or concurrent enrollment in ECE 51 and ECE 53 may be taken concurrently.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Offers resources and support for student teachers and interns engaged in field experience under the supervision of a Master or Mentor Teacher at designated child development programs.
ECE 170
Competencies of the Child Care Professional
½ - 3 units; ½ hours Lecture
Prerequisite: ECE 31 or ECE 131.
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatability: May be taken 4 times.
Provides an opportunity for experienced child care professionals to work with a trainer on program assessment, reflective practice, professional development, and leadership skills. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 171A-Z
Issues for Family Day Care Providers
½ - 2 units; ½ hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100 when taught in English, or concurrent enrollment in ESL 201A or ESL 220A or higher ESL level when taught in Spanish.
Repeatability: May be taken 4 times. Each special topic maybe taken one time.
Offers a series of courses designed for family childcare home providers to plan or revitalize their programs. Course content will vary with each offering, as will prerequisites. Topics may relate to: child development; environments; curriculum, partnerships with families; professional development. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 230
Basic Skills of Preparing Child Observations and Assessments
½ units; ½ hours Laboratory
Recommended Preparation: When taught in Spanish, concurrent enrollment in ESL 201A or ESL 220A or higher ESL level.
Repeatability: May be taken 2 times.
Teaches practical approaches for child observation and assessment, developing writing skills necessary for documenting child observations, parent interviews, child development studies or family history papers. Each section will relate to a specific Early Childhood Education course. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECE 231
Introduction to Child Development
1 - 3 units; 1 hour Lecture
Recommended Preparation: When taught in Spanish, concurrent enrollment in ESL 201A or ESL 220A or higher ESL level.
Presents, through observation, written documentation, and analysis of children’s behavior, the basic concepts of child development from birth through age six. May be taught in Spanish as part of the Bilingual Spanish/English ECE teacher skills certificate.

ECONOMICS

Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Economics Majors
Economics is concerned with the way individuals and societies allocate scarce resources, how resources are turned into the things people want, and how those things are distributed. Any situation requiring choice among competing needs can be viewed as an economic problem. Economics courses enable students to study the way households and businesses make these choices (microeconomics), the way governments make these choices and the consequences of these choices for the nation as a whole (macroeconomics). The curriculum also addresses international trade, social welfare, money and banking, taxation, and environmental protection.

Career opportunities: An economics major with an A.A. degree generally transfers to a four-year institution to complete a Bachelor’s degree. Economics graduates at the Bachelor’s level are qualified for a variety of positions with government, industry, and public interest organizations and they are well prepared to enter a graduate program in economics, business, journalism, law, or public policy. Teaching at the two-year college level is an option if a Master’s degree is obtained. An economist can obtain the Ph.D. Degree, which may lead to research and/or teaching at the university level, or basic research in government, industry, or public interest organizations. Nearly every four-year college and university offers an economics major.

MODEL PROGRAM FOR ECONOMICS
The following model program fulfills requirements for the A.A. Degree in Economics at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.
Core Courses | Units
--- | ---
ECON 1A | Introduction to Macroeconomics | 3
ECON 1B | Introduction to Microeconomics | 3
MATH 13 | Finite Mathematics | 3
MATH 18 | Business Calculus | 3
MATH 5A | Analytic Geometry and Calculus I | 4
MATH 5B | Analytic Geometry and Calculus II | 4
MATH 12 | Elementary Statistics | 4
OR
BUS 9 | Business Statistics | 3

Plus one course chosen from the following:

- ACCT 1A | Financial Accounting | 4
- ACCT 1B | Managerial Accounting | 4
- ANTHR 2 | Intro. To Anthropology: Cultural | 3
- BUS 18 | Business Law | 4
- ES 10 | Intro. to Environmental Science | 3
- FIN 10 | Introduction to Investments | 3
- GEOG 2 | Cultural Geography | 3
- MATH 5C | Analytic Geometry and Calculus III | 4
- MATH 6 | Introduction to Linear Algebra | 3
- MATH 7 | Intro. to Differential Equations | 3
- PSYCH 1 | General Psychology | 3
- PSYCH 6 | Intro. to Social Psychology | 3
- PSYCH 12 | Intro. to Cognitive Psychology | 3
- SOC 1 | Intro. To Sociology | 3
- SOC 2 | Contemporary Social Problems | 3

Economics Core Courses: 15-18

Additional Approved Course: 3-4

Other Electives: 8-12

Total for A.A. Degree in Economics: 60

Economics Courses

**ECON 1A**

Introduction to Macroeconomics

3 units; 3 hours Lecture

Recommended Preparation: MATH 154. Eligibility for ENGL 100 and READ 100.

Introduces national income accounting, banking, and Federal Reserve System, determinants of the level of unemployment and inflation, examination of economic growth and business cycles, and government economic policy.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN ECON2.

**ECON 1B**

Introduction to Microeconomics

3 units; 3 hours Lecture

Recommended Preparation: MATH 154. Eligibility for ENGL 100 and READ 100.

Introduces markets, demand and consumer behavior, supply and firm behavior, competition and market power, efficiency and market failure, wages and labor markets, income distribution, and government regulation of markets.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN ECON4.

**EDUCATION**

Human Arts and Social Science

Nancy A. Brown, Division Dean
Division Office, Room 420
Program Chair, Michael Mangin, (831) 479-6227
Liberal Studies website: www.cabrillo.edu/ls
Counselor: Call (831) 479-385 (Career Center) or (831) 479-6225 (Counseling Office) or (831) 477-5134 (Watsonville) for an appointment.

Call (831) 479-6348 or (831) 479-6297 for more information

Information for Education Majors

Multiple Subject Credential Programs for Elementary School Teaching:

Becoming an elementary school teacher in California requires a Multiple Subject Credential. The Multiple Subject Credential is a license to teach in K-12 public schools. This credential authorizes the holder to teach multiple subjects in a self-contained classroom in most elementary schools. However, a teacher authorized for multiple subject instruction may be assigned to teach in any self contained classroom (preschool, K-12 or in classes organized primarily for adults.)

Please visit the California Teaching Credential site for a list of approved programs - http://www.ctc.ca.gov/default.html

At most campuses of CSU, the Liberal Studies program is the approved program for preparing to be an Elementary School teacher. Regardless of undergraduate major all students must take the CSET California Subject Examinations for Teachers (previously the MSAT) to demonstrate subject matter competence before entering a credential program.
Single Subject Credential Programs for Secondary Schools Teaching:
In California, the appropriate credential to teach a subject in a departmentalized classroom, such as Math or English at the middle school or high school level, is the Single Subject Teaching Credential. This credential authorizes public school teaching in departmentalized classrooms in grades K-12, and classes organized primarily for adults. The most direct route to enter a single subject credential program is to complete an undergraduate major (in the subject in which you want to teach) in a subject matter program approved by the California Commission for Teacher Preparation. All students who do not complete a single subject waiver program must take the California Subject Examinations for Teachers (CSET) to demonstrate subject matter competence before entering a credential program. For a list of approved undergraduate single subject matter programs, please visit the California Teaching Credential site at www.ctc.ca.gov. Previously these tests were called the Single Subject Assessment Test (SSAT) and the appropriate PRAXIS (Professional Assessment for Beginning Teachers.)

In addition to the CSET, all applicants to credential programs in California must pass the California Basic Education Skills Test (CBEST) before admission. Students are encouraged to take the CBEST as soon as possible after completing the English and math courses required for transfer. The CSET is taken after completing an undergraduate degree and before entering a credential program.

Cabrillo College offers the lower division general education and major preparation needed for admission to approved subject matter preparation programs at most universities. Cabrillo also offers the opportunity to complete the hours of experiences (50 hrs. for Elementary and 35 hrs. for Secondary) required before entering a credential program (see information listed below on the TRDP Program.) Contact the Counseling Office at (831) 479-6274, the Transfer Center at (831) 479-6385, the Career Planning Office at (831) 479-6225 or the Watsonville Center at (831) 477-5134.

Liberal Studies (for Elementary School Teaching) Transfer Information
The Cabrillo College Liberal Studies transfer program is designed for students who are interested in becoming elementary school teachers in California. The Liberal Studies major is the most common “approved major” for teacher preparation and the major that best prepares students to take the CSET. The program below reflects requirements that enable a student to transfer to a CSU campus completing all lower division requirements. Please note that in GE Areas B through D, students are directed to check the major preparation agreement for their transfer university on ASSIST to choose the recommended courses. With careful selection of course work a student may prepare for several universities as well as complete the lower division general education requirements and some of the classroom hours needed to enter a credential program. Additional course work may be required or recommended by the transfer institution. Please see a counselor for assistance.

Teachers for Tomorrow students (future teachers) may receive extra support in obtaining K-12 classroom experience, CBEST training, scholarship opportunities, and teaching pathways’ counseling. For more information please contact Eva Acosta at (831) 477-5134 or Rosemary Brogan at (831) 479-6404.

For more information on Teacher Preparation programs and teaching jobs, please visit www.teachcalifornia.org.

MODEL PROGRAM FOR TRANSFER IN LIBERAL STUDIES
Core Courses plus General Education 60-Units

Core Required .................................................. 3
EDUC 80 American Education in a Changing World .... 3
READ 20 Techniques of Tutoring Reading ............ (3)
(READ 20 is not required but highly recommended for transfer.)
General Education-Required ......................... 30-units minimum

The following GE areas are required for the Liberal Studies Major, however, in some cases courses other than those listed may be substituted in Areas B, C, and D depending on the intended transfer institution—please see a counselor or refer to the specific major preparation agreement on ASSIST at www.assist.org

Area-CSU General Education/Breadth

A1 Communications 1, 2, or 10 .......................... 3
A2 ENGL 1A/1AMC ........................................ 3
A3 ENGL 2/2AMC ........................................... 3
B1 CHEM 1A*, 2*, 10*, 32*, PHYS 2A*, 10, 10+10L*, 11*, 12 ................. 3-4
B1 ASTRO 3, 4, 10 or 11L-8A*; GEOG 1, 1+1L*;
GEOL 10*, 15; METEO 1, 1+1L*, OCEAN 10*3-4
B2 BIO 1A*, 1B*, 1C*, 11A*, 11B* or 11C*, 13A,
13A+13AL* .............................................. 3-4
B3 One course in Area B must have a lab.
B4 MATH 15 .................................................. 3
B5 MATH 4-Highly recommended .................... 5
C1- AH 77/TA 77/MUS 77 is highly recommended for
C1- For CSU Monterey Bay, 3rd semester of a foreign
language is required for graduation.
C2 Check agreement on ASSIST ....................
C1 or C2 Check agreement on ASSIST ............
D** PS 1 or 5 ............................................... 3
D**- HIST 17A .............................................
D Check agreement on ASSIST ..................

**To meet the constitutions requirement for teacher preparation-students should choose either HIST 17A or PS 1.
E HS 10 .................................................. 3

Multi-cultural Requirement- AA only ............... (3 units) may be double counting
Physical Education ................................... 2 units recommended
Technology Communication-CS 1+1L, DM 1, & LIBR 10. . . 10 units

Associate in Arts Degree (CSU General Education) in Liberal Studies

Required General Education .......................... 39
EDUC 80 American Education in a Changing World .... 3
***Additional Required courses ........................ 18

Total for A.A. Degree in Liberal Studies 60-70

***Please refer to the ASSIST agreements for your intended transfer university.
Education Courses

EDUC 80
American Education in a Changing World
3 units; 2 hours Lecture, 3½ hours Service Learning.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An introduction to the teaching profession in the United States that encourages thinking about teaching in new ways. Assumptions about teaching and learning are reexamined by looking at educational philosophies, learning theory, curriculum and diversity in today's classroom. A Service Learning component will be incorporated into the course.
Transfer Credit: Transfers to CSU. Transfers to UC.

EDUC 120A-Z
Special Topics in Education
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Analyzes special topics in the field of education, including but not limited to such topics as history, philosophy, diversity, differentiated instruction, curriculum, California State standards, teacher preparation examinations, and techniques in effective tutoring. May also include on site experience.

ENGINEERING

Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Jo-Ann Panzardi, Program Chair, (831) 479-6497
Counselor: (831) 479-6225 or (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

Information for Engineering Majors

Engineers are the people who design and build the systems, structures and products that make the world run. Engineers are employed in research, development, design, construction, manufacturing and operations of technical projects related to almost all aspects of modern life, including the environment, communications, transportation, food production, medicine and health, space exploration, housing and energy.

Cabrillo College offers a two-year lower division engineering program that prepares students for transfer with full junior standing to colleges and universities in California and across the United States. The first two years of the engineering curriculum at all colleges and universities are similar with specialization commencing in the junior year in branches such as aerospace, civil, chemical, computer, electrical, environmental, industrial, materials and mechanical engineering.

An engineering student at Cabrillo does not need to select a major branch of engineering study until applying for transfer to a college or university; however, some of the course requirements for transfer depend on the student's intended major and the transfer university. Completion of the lower division core courses below is essential in facilitating progress as an upper division engineering transfer student.

It is important that engineering students meet with the engineering transfer counselor or Engineering Department for specific requirements for transfer.

MODEL PROGRAM FOR ENGINEERING

The model program fulfills requirements for the A.S. Degree in Engineering at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

This program has been adopted by the Engineering Liaison Council of the California Intersegmental Council.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 5</td>
<td>Engineering as a Profession.</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>†ENGR 15</td>
<td>Circuits (spring only)</td>
</tr>
<tr>
<td>*ENGR 25</td>
<td>Graphics and Design</td>
</tr>
<tr>
<td>†ENGR 35</td>
<td>Statics (spring only)</td>
</tr>
<tr>
<td>††*ENGR 45</td>
<td>Engineering Materials (fall only)</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>Analytical Geometry &amp; Calculus I</td>
</tr>
<tr>
<td>MATH 6B</td>
<td>Analytical Geometry &amp; Calculus II</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>Analytical Geometry &amp; Calculus III</td>
</tr>
<tr>
<td>MATH 17</td>
<td>Introduction to Differential Equations</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Physics for Scientists and Engineers</td>
</tr>
<tr>
<td>†PHYS 4B</td>
<td>Physics for Sci and Engrs (fall only)</td>
</tr>
<tr>
<td>††PHYS 4C</td>
<td>Physics for Sci and Engrs (spring only)</td>
</tr>
</tbody>
</table>

The following core courses are required for transfer for most engineering majors and by transfer universities.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1B</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CS 11</td>
<td>Introduction to Programming Concepts &amp; Methodology, C++</td>
</tr>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
</tr>
<tr>
<td>†ENGR 1A</td>
<td>Surveying (fall only)</td>
</tr>
<tr>
<td>†ENGR 10</td>
<td>Engineering Communication (spring odd only)</td>
</tr>
<tr>
<td>ENGR 26</td>
<td>Solid Modeling (spring only)</td>
</tr>
<tr>
<td>†MATH 6</td>
<td>Introduction to Linear Algebra (spring only)</td>
</tr>
<tr>
<td>††PHYS 4D</td>
<td>Modern Physics (fall even only)</td>
</tr>
</tbody>
</table>

* Not required for electrical and computer engineering majors at most transfer universities.
† = spring offering; †† = fall offering

Associate in Science Degree in Engineering

General Education | 21
Core courses | (any of the courses above; at least 12 units of ENGR courses) | 39
Total for A.S. Degree in Engineering | 60
Engineering Courses

ENGR 1A
Surveying
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: MATH 4 or High School Trigonometry.
Recommended Preparation: ENGR 25 (may be taken concurrently);
Eligibility for ENGL 1A/1AMC.

Applies theory and principles of plane surveying: office computations
and design; operation of surveying field equipment; and production of
engineering plans/maps. Topics include distances, angles, and direc-
tions; differential leveling; traversing; property/boundary surveys; topo-
graphic surveys/mapping; volume/earthwork; horizontal and vertical
curves; land description techniques; construction applications; and GPS.
Extensive field work using tapes, levels, transits, theodolites, total sta-
tions, and GPS. Fall semesters only.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGR10.

ENGR 5
Engineering as a Profession
2 units; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 1A/1AMC.

Provides information to evaluate the engineering profession as a per-
personal career choice. Explores the branches of engineering, the functions
of an engineer, and the industries in which they work. Presents an intro-
duction to the methods of engineering analysis, design and problem
solution emphasizing the interface of the engineer with society and engi-
neering ethics. Explains the engineering education process and explores
effective strategies for students to reach their full academic potential.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGR 10
Engineering Communication
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: ENGL 1A/1AMC.

Develops written, computer and oral communication skills in analyz-
ing and presenting data in solving engineering problems. Builds analysis,
computation, teamwork and presentation skills; teaches writing and
organizing principles for effective technical writing; and utilizes comput-
er applications to create and present engineering projects. Spring
semester of odd years only.
Transfer Credit: Transfers to CSU.

ENGR 15
Circuits
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: PHYS 4B; MATH 7 (may be taken concurrently).
Recommended Preparation: Eligibility for ENGL 1A/1AMC.

Analyses the behavior of currents and voltages in electrical circuits
containing resistive, capacitive, inductive passive elements, along with op-
amps interconnected to voltage and current sources. Basic circuit
laws, network theorems and computer analysis are used to solve DC
steady state circuits, RC, RL, and RLC DC circuit transients and sinu-
soidal AC steady state circuits. Power and energy analysis is performed
throughout the course. Spring semester only.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGR6.

ENGR 25
Graphics and Design
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: MATH 4.
Recommended Preparation: Eligibility for ENGL 1A/1AMC.

Applies principles of engineering drawing in visually communicating
engineering designs using freehand sketching, instrument drawing, and
computer-aided drafting/design using AutoCAD. Topics include ortho-
graphic and pictorial drawings; descriptive geometry; detail and assem-
bly drawings; dimensioning and tolerancing; and scales. Acquire an in-
depth understanding of the engineering design process and improve cre-
avity in solving engineering problems.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGR2.

ENGR 26
Solid Modeling
1 unit; 1 hour Lecture, 4 hours Laboratory
Prerequisite: ENGR 25.
Recommended Preparation: Eligibility for ENGL 1A/1AMC.

Applies principles of solid modeling using Pro/Engineer in engineering
design and the production of engineering drawings. Construct parts,
solid models, and assemblies. Plot three-dimensional drawings and
dimensioned orthographic drawings. Produce engineering documenta-
tion packages. Spring semester only.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGR 35
Statics
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: PHYS 4A; MATH 5C (may be taken concurrently).
Recommended Preparation: ENGR 25; Eligibility for ENGL 1A/1AMC.

Analyses two- and three-dimensional force systems on rigid bodies in
static equilibrium. Vector and scalar analysis methods address forces
acting on rigid bodies, trusses, frames, machines, and beams. Topics
include distributed force systems, friction, shear and bending moment
diagrams; centroids/center of mass, moment of inertia. Additional topics
include Mohr’s circle and virtual work. Spring semester only.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGR8.

ENGR 45
Engineering Materials
3 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: PHYS 4A; CHEM 1A.
Recommended Preparation: ENGR 10; CHEM 1B; ENGL 1A/1AMC.

Presents the properties and performance of engineering materials and
their relationship to the internal structure of materials. Applies the con-
cepts of material science and engineering in testing materials using lab-
oratory testing equipment. Utilizes analysis techniques in selecting the
appropriate materials to meet engineering design criteria. Engineering
materials include metals, polymers, ceramics, composites, and semicon-
ductors. Fall semester only.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGR4.
ENGR 99 A-Z
Special Topics in Engineering
½ - 5 units; ½ hours Lecture
Repeatability: May be taken 4 times.
Selected topics in Engineering not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.

ENGINEERING TECHNOLOGY
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Gary Marcoccia, Program Chair, (831) 479-5705
Counselor: (831) 479-6225 or (831) 479-6274 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.info

Engineering Technology
Occupational Program
The Engineering Technology A.S. Degree/Certificate Program has been designed under the guidance of an industry advisory board for students who have a strong interest in hands-on technical work based in electronics, manufacturing, and design drafting. Employment opportunities await our graduates locally, in the Silicon Valley, and globally. Upon entering the workforce, our graduates perform duties requiring a combination of the theoretical knowledge of an engineer and the skills of a draftsperson. The following are a sampling of the many fields our graduates qualify for: engineering technician, design drafting, manufacturing, electronics, and computer animation. The Engineering Technology Department at Cabrillo College offers an A.S. Degree and a Certificate of Proficiency, as well as five Skills Certificate options. Additionally, several courses carry transfer credit to baccalaureate degree granting institutions.

Note: We strongly recommend CS 1 (Introduction to Computers and Computer Technology) and CS 1L (Lab: Introduction to Computers and Computer Technology) for all students enrolling in computer-based Engineering Technology courses. Please refer to the Cabrillo College Catalog descriptions of these courses to determine if you possess equivalent knowledge.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 31</td>
<td>Introduction to Electronic Circuit and Schematic Design</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 41</td>
<td>Computer Aided Drafting/Manufacturing I</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 42</td>
<td>Computer Aided Drafting/Manufacturing II</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 126</td>
<td>3D Solid Modeling and Rendering</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>Introduction to Pro/Engineer</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 132</td>
<td>Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 138</td>
<td>Electromechanical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 145</td>
<td>ANSI Standards in Mechanical Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved Program Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CIS 172</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>DM 2</td>
<td>Introduction to Digital Publishing using InDesign</td>
<td>3</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics using Photoshop and Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 121</td>
<td>Introduction to 3D Studio Max</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 122</td>
<td>Intermediate 3D Studio Max</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 125</td>
<td>3D Wireframe and Surface Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>Intermediate Pro/Engineer</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 135</td>
<td>Survey of Electronics Technology</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 140</td>
<td>Introduction to Maya</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 150</td>
<td>ETECH Careers and Employment Preparation</td>
<td>2</td>
</tr>
<tr>
<td>ETECH 199C</td>
<td>Career Work Experience Education</td>
<td>½-4</td>
</tr>
</tbody>
</table>

Associate in Science Degree in Engineering Technology
General Education ........................................................................ 21
Engineering Technology Core Courses ........................................ 27
Approved Program Electives ......................................................... 5
Electives ....................................................................................... 7
Total for A.S. Degree in Engineering Technology ......................... 60

Certificate of Proficiency in Engineering Technology
Engineering Technology Core Courses ........................................ 27
One of the following: ENGL 100/1A/1AMC, or CABT 157 .............. 3
Total for Certificate of Proficiency in Engineering Technology ........ 30

ENGINEERING TECHNOLOGY SKILLS CERTIFICATES

Architecture Drafting and Design Skills Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 60</td>
<td>Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 61</td>
<td>Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 62</td>
<td>Architecture III</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 71</td>
<td>ArchiCAD I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Architecture Drafting and Design Skills Certificate 15

If desired, one required Architecture Drafting and Design course may be replaced with one of the following (listed courses may require the completion of prerequisites):

CEM 151 | Construction Fundamentals: Principles and Practices | 3     |
CIS 172 | Introduction to Operating Systems using InDesign | 3     |
DM 2    | Introduction to Digital Publishing using InDesign | 3     |
DM 4    | Digital Graphics using Photoshop and Illustrator | 3     |
ETECH 110 | Civil and Land Development CAD | 3     |
ETECH 121 | Introduction to 3D Studio Max | 3     |
ETECH 126 | 3D Solid Modeling and Rendering | 3     |
ETECH 130 | Introduction to Pro/Engineer | 3     |
Intermediate Pro/Engineer | 3     |
ETECH 140 | Introduction to Maya | 3     |
ETECH 175 | ArchiCAD II | 3     |
**Civil/Survey Drafting Skills Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1A</td>
<td>Surveying (fall only)</td>
<td>4</td>
</tr>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 110</td>
<td>Civil and Land Development CAD</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Civil/Survey Drafting Skills Certificate: 10

*Requires Trigonometry as a prerequisite

**Computer Aided Drafting and Design Skills Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 41</td>
<td>Computer Aided Drafting/Manufacturing I</td>
<td>3</td>
</tr>
<tr>
<td>*ETECH 42</td>
<td>Computer Aided Drafting/Manufacturing II</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 125</td>
<td>3D Wireframe and Surface Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Computer Aided Drafting and Design Skills Certificate: 12

*Requires MATH 153 or high school geometry as prerequisite

If desired, one required Computer Aided Drafting and Design course may be replaced with one of the following (listed courses may require the completion of prerequisite):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 2</td>
<td>Introduction to Digital Publishing using InDesign</td>
<td>3</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics using Photoshop and Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 121</td>
<td>Introduction to 3D Studio Max</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 126</td>
<td>3D Solid Modeling and Rendering</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>Introduction to Pro/Engineer</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>Intermediate Pro/Engineer</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 140</td>
<td>Introduction to Maya</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 145</td>
<td>ANSI Standards in Mechanical Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>

**Computer Animation Skills Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 126</td>
<td>3D Solid Modeling and Rendering</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 140</td>
<td>Introduction to Maya</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 141</td>
<td>Intermediate Maya</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Computer Animation Skills Certificate: 12

If desired, one required Computer Animation course may be replaced with one of the following (listed courses may require the completion of prerequisite):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 2</td>
<td>Introduction to Digital Publishing using InDesign</td>
<td>3</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics using Photoshop and Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>DM 6</td>
<td>Advanced Digital Publishing using InDesign</td>
<td>3</td>
</tr>
<tr>
<td>DM 8</td>
<td>Design for Digital Publishing using InDesign</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 125</td>
<td>3D Wireframe and Surface Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>Introduction to Pro/Engineer</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>Intermediate Pro/Engineer</td>
<td>3</td>
</tr>
</tbody>
</table>

**Manufacturing Specialist Skills Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 10</td>
<td>Introduction to Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 10L</td>
<td>Introduction to Physics Lab</td>
<td>1</td>
</tr>
<tr>
<td>ETECH 135</td>
<td>Survey of Electronics Technology</td>
<td>3</td>
</tr>
<tr>
<td>COMM 6</td>
<td>Listening</td>
<td>1</td>
</tr>
<tr>
<td>*CHEM 2</td>
<td>Introductory Inorganic Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Manufacturing Specialist Skills Certificate: 12

*CHEM 2 has a prerequisite of MATH 152 (Intermediate Algebra)

**Technology and Trades Skills Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 178A</td>
<td>Residential Construction Skills 1: &quot;Front End&quot;</td>
<td>3</td>
</tr>
<tr>
<td>*CG 54</td>
<td>Career Planning</td>
<td>2</td>
</tr>
<tr>
<td>CS 1L</td>
<td>Lab: Intro to Computers and Computer Technology</td>
<td>2</td>
</tr>
<tr>
<td>ENGR 5</td>
<td>Engineering as a Profession</td>
<td>2</td>
</tr>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>**W 150</td>
<td>Arc Welding</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Technology and Trades Skills Certificate: 14

*We recommend the online section to avoid scheduling difficulties with other Technology and Trades courses.

** We recommend that students complete high school algebra or MATH 154 prior to enrolling in this course.

If desired, one required Technology and Trades course may be replaced with one of the following (listed courses may require the completion of prerequisite):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 41</td>
<td>Computer Aided Drafting/Manufacturing I</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 42</td>
<td>Computer Aided Drafting/Manufacturing II</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 60</td>
<td>Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 61</td>
<td>Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 62</td>
<td>Architecture III</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 71</td>
<td>ArchiCAD I</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>Introduction to Pro/Engineer</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 140</td>
<td>Introduction to Maya</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 175</td>
<td>ArchiCAD II</td>
<td>3</td>
</tr>
<tr>
<td>W151</td>
<td>Gas and TIG Welding</td>
<td>2</td>
</tr>
</tbody>
</table>

**Engineering Technology Courses**

**ETECH 24**

**Introduction to AutoCAD**

3 units; 2 hours Lecture, 4 hours Laboratory

Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 4 times.

Introduces the fundamental operating principles of AutoCAD drafting/design software. Uses AutoCAD for Windows to create and revise two-dimensional drawings. This is a foundation course that can lead to advanced study in a variety of drafting and design fields.

*Transfer Credit: Transfers to CSU. Transfers to UC.*
ETECH 26
CAD System Customizing
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Covers advanced applications of computer aided design systems, emphasizing customizing these systems to meet special applications. Topics include symbol libraries, menus, macros, and internal programming languages.
Transfer Credit: Transfers to CSU.

ETECH 31
Introduction to Electronic Circuit and Schematic Design
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Presents the use of computer aided drafting software for the design of electronic diagrams, including schematics, wiring diagrams, block diagrams, and printed circuit fabrication drawings. Includes instruction on symbol creation, symbol library maintenance and hands-on basic electronics.
Transfer Credit: Transfers to CSU.

ETECH 41
Computer Aided Drafting/Manufacturing I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Presents a second level AutoCAD and first level mechanical drafting and computer aided manufacturing course. Includes an introduction to the computer aided design of mechanical drawings, detailing the fabrication of mechanical parts, technical sketching, multi-view orthographics, section views, auxiliary views, dimensioning, and a hands-on introduction to computer aided manufacturing. Applies student's ability to describe types of angles and triangles, and the properties of parallel lines, triangles, congruence and similarity.
Transfer Credit: Transfers to CSU.

ETECH 60
Architecture I
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides an overview of the field of architectural drafting and design for those interested in pursuing this occupational area of study. Includes an introduction to the professional fields of architecture, engineering, city planning, and landscape architecture. The language of architecture and the historical development of construction principles will also be emphasized.
Transfer Credit: Transfers to CSU. Transfers to UC.

ETECH 61
Architecture II
3 units; 2½ hours Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents an introduction to architectural drafting/design with an emphasis on drafting construction details, and the application of construction processes/materials. AutoCAD computer aided drafting software will be introduced as a means of creating simple design projects.
Transfer Credit: Transfers to CSU.

ETECH 62
Architecture III
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 41.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers intermediate topics in AutoCAD-based architectural drafting techniques/practices, including wood construction methods/processes, preparation of construction documents, site plans, floor plans, sections, elevations, and specifications.
Transfer Credit: Transfers to CSU.

ETECH 71
ArchiCAD I
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.

Introduces the use of ArchiCAD architectural design software with instruction focused on the basic concepts and tools needed to create an object oriented 3D virtual model. Also included is an introduction to a variety of ArchiCAD's output capabilities. This is the first of a two-part ArchiCAD course series.
Transfer Credit: Transfers to CSU.
ETECH 110
Civil and Land Development CAD
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers advanced design concepts for land development/facilities management projects, including interpretation of field collected data for developing topographic maps, terrain modeling, slope, aspect, profiles and cross sections. Also includes creating and modifying object data and topologies for use in GIS, facilities management and multi-drawing editing environments.

ETECH 121
Introduction to 3D Studio Max
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Presents an introduction to 3D Studio Max, a popular computer animation software which allows for the presentation of animated mechanical and architectural designs. Includes an introduction to 3D model construction, rendering, and animation using camera, target, and object motion.

ETECH 122
Intermediate 3D Studio Max
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 121.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Presents a second-level course in the use of 3D Studio Max software to create animation using 3D computer models. Includes advanced 3D model construction, rendering, and animation using camera, target and object motion.

ETECH 125
3D Wireframe and Surface Modeling
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the use of computer aided design software for 3D wireframe and surface modeling of mechanical and architectural designs. Ability to use CAD software to draw 2D shapes, revise 2D drawings, dimension 2D drawings, and plot 2D drawings is required.

ETECH 126
3D Solid Modeling and Rendering
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers the use of computer aided design software for 3-dimensional solid modeling and rendering of mechanical and architectural designs, including shaded and photorealistic rendering. Ability to use CAD software to draw 2D shapes, revise 2D drawings, dimension 2D drawings, and plot 2D drawings is required.

ETECH 128
Virtual Reality
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 106; Eligibility for ENGL 100 and READ 100.
Covers an introduction to the use of computer graphics to simulate virtual 3D environments and world creation. Includes basic 3D modeling, real-time rendering, and defining object behavior.

ETECH 130
Introduction to Pro/Engineer
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Covers an introduction to the fundamental operating principles of Pro/Engineer software. Uses Pro/Engineer for Windows to create and revise drawings. This is a foundation course that can lead to advanced study in a variety of drafting and design fields.

ETECH 131
Intermediate Pro/Engineer
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 130.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Covers intermediate-level operating principles of Pro/Engineer software. Uses Pro/Engineer for Windows to create and revise drawings. The second of a two part Pro/E course series.

ETECH 132
Printed Circuit Design
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 31.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the use of computer aided design software for design of electronic printed circuit boards, including footprint symbol creation, symbol library maintenance, analog/digital printed circuit design, surface mount technology, and hands-on circuit electronics instruction.

ETECH 135
Survey of Electronics Technology
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Presents a comprehensive introductory survey of electronics which includes voltage, current and resistance, types of electronic components and circuits, semiconductor devices, IC fabrication, Surface Mount Technology (SMT), and hands-on lab instruction.
ETECH 138
Electromechanical Systems
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 42 and ETECH 132.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Covers the theory and application of mechanical devices and their control circuits. Topics include component recognition, electrical schematic diagrams, hydraulics, pneumatics, AC and DC motors, stepping motors, mechanical drive systems and servomechanisms. Provides hands-on experience with assembly/disassembly operations including maintenance and troubleshooting of small-scale electromechanical, pneumatic, and fluid power systems.

ETECH 140
Introduction to Maya
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Introduces Maya, a popular 3D animation software used in the creation of animated organic, mechanical and architectural designs. Alias/Wavefront’s Maya is the current leader in the film/television industry. Includes an introduction to 3D model construction, texturing, lighting, animation, cinematography and rendering.

ETECH 141
Intermediate Maya
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 140.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Presents a second-level course in the use of Maya software to create animation using 3D computer models. Includes advanced 3D model construction, rendering, and animation using camera, target and object motion.

ETECH 145
ANSI Standards in Mechanical Drafting
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 and ETECH 41 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents advanced mechanical drafting course covering the relevant American National Standards Institute standards, including geometric dimensioning/tolerancing, finish symbols, weld symbols, and other relevant symbols/conventions. Many companies require knowledge of ANSI standards for entry-level drafters. All work will be completed using AutoCAD software.

ETECH 150
ETECH Careers and Employment Preparation
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Presents a review of current trends/developments in the engineering technology field with focus on skill set requirements, employment opportunities, and projected job trends associated with the various Engineering Technology branches. Mock interviews, portfolio building and resume creation will be completed during lab sessions.

ETECH 175
ArchiCAD II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 71.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Teaches advanced use of ArchiCAD architectural design software with focus on its many virtual model refinement capabilities. Includes instruction on the printing of architectural-size drawings, quantity calculations, shaded view creation, photo-realistic rendering, sun studies, animation ‘fly throughs,’ virtual reality, and panoramic scenes. This is the second of a two-part ArchiCAD course series.

ETECH 190A-Z
Special Topics in Engineering Technology
½ - 5 units; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any particular special topics course may be repeated a total of 4 times.
Selected topics in Engineering Technology not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.

ENGLISH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Conrad Scott-Curtis, Program Chair, (831) 477-3204
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
www.cabrillo.edu/programs
Information for English Majors

Students majoring in English at Cabrillo may take courses in composition, critical thinking, research writing, creative writing, journalism, film, teaching and tutoring techniques, and a wide range of literature courses, including British and American surveys, Mythology and Folklore, Children’s Literature, World Literature, and studies of Chicana/o-Latina/o, Native American, African American, and Latin American poetry and prose. These courses help students to write effectively and persuasively, to hone their critical thinking skills, and to cultivate their understanding and appreciation of literature in the context of culture. Majoring in English leads directly to careers in teaching, journalism, publishing and editing, technical writing, public relations, and advertising. It is also excellent preparation for careers in law, communications, government, and a variety of business environments.

MODEL PROGRAM FOR ENGLISH

The following model program fulfills requirements for the A.A. in English at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

### Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 18</td>
<td>College Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 46AB</td>
<td>Major British Writers</td>
<td>3-3</td>
</tr>
<tr>
<td>ENGL 45</td>
<td>World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 40</td>
<td>Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 41AB</td>
<td>African American Literature</td>
<td>3-3</td>
</tr>
<tr>
<td>ENGL 41</td>
<td>American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 49</td>
<td>Chicana/o-Latina/o Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 48A</td>
<td>Mythology and Folklore</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 40</td>
<td>Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 41AB</td>
<td>African American Literature</td>
<td>3-3</td>
</tr>
<tr>
<td>ENGL 45</td>
<td>World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 46AB</td>
<td>Major British Writers</td>
<td>3-3</td>
</tr>
<tr>
<td>ENGL 48A</td>
<td>Mythology and Folklore</td>
<td>3</td>
</tr>
</tbody>
</table>

### Approved Electives

- ENGL 12 ABCDEF: Creative Writing: Introduction, Prose, Poetry, Drama, Film, or Autobiography. 6 units
- ENGL 31, 32, or 33: The Novel, The Short Story or Introduction to Poetry. 3 units
- ENGL 424B: Native American Prose and Poetry. 3-3 units
- ENGL 430B: American Literature. 3-3 units
- ENGL 434: Shakespeare. 3 units
- ENGL 439: Chicana/o-Latina/o Literature. 3 units
- ENGL 440: Latin American Literature. 3 units
- ENGL 41AB: African American Literature. 3-3 units
- ENGL 45: World Literature. 3 units
- ENGL 46AB: Major British Writers. 3-3 units
- ENGL 48A: Mythology and Folklore. 3 units

### Recommended from Related Disciplines

- General Education. 30 units
- ENGL 46AB: Major British Writers. 3-3 units
- ENGL 41: American Literature. 3 units
- ENGL 45: World Literature. 3 units
- ENGL 48A: Mythology and Folklore. 3 units

### Total for A.A. Degree in English

60 units

### General Information about Meeting Prerequisites

Course prerequisites may be met in the following ways:

- Successful completion of the prerequisite course as listed in the Catalog or Schedule of Classes
- Successful completion of appropriate coursework at another institution
- An appropriate placement score
- For certain courses, equivalent professional experience

If you believe you have completed the listed prerequisites or corequisites for a course as listed in the Catalog or Schedule of Classes, make an appointment to see a counselor.

### English Courses

#### ENGL 1A

**College Composition**

3 units; 3 hours Lecture

Prerequisite: ENGL 100 and ENGL 100L or ENGL 115.

Corequisite: LIBR 10.

Emphasizes the expository essay and research paper; readings serve as models and topics for discussion. Students write at least 6,000 words, focusing on clarity and accuracy. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC: Not open to students who have completed ENGL 1AMC. CAN ENGL2.

#### ENGL 1AMC

**College Composition: Multicultural Emphasis**

3 units; 3 hours Lecture

Prerequisite: ENGL 100 and ENGL 100L or ENGL 115.

Corequisite: LIBR 10.

Emphasizes the expository essay and research paper; readings are used as models and topics for discussion. Students write a minimum of 6,000 words with an emphasis on clarity and accuracy. Satisfies both ENGL 1A and multicultural requirement. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC: Not open to students who have completed ENGL 1A. CAN ENGL2.

#### ENGL 1B

**Composition and Literature**

3 units; 3 hours Lecture

Prerequisite: ENGL 1A or ENGL 1AMC.

Recommended Preparation: LIBR 10 (may be taken concurrently.)

Introduces literature through reading, writing, and discussion to develop critical and analytical skills; satisfies Humanities & Fine Arts requirement for UC/CSU. Students write at least 6,000 words, focusing on literary interpretation and research. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC: Not open to students who have completed ENGL 1BMC. CAN ENGL4.
ENGL 1BMC
Composition and Literature:
Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 1A or ENGL 1AMC.
Recommended Preparation: LIBR 10 (may be taken concurrently.)
Introduces multicultural literature through reading, writing, and discussion to develop analytical skills. Satisfies the IGETC and CSU Humanities and Fine Arts (ENGL 1B) requirements and Cabrillo multicultural requirement. Students write at least 6,000 words, focusing on literary interpretation and research. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC: Not open to students who have completed ENGL 1B. CAN ENGL4.

ENGL 1C
Advanced Composition
3 units; 3 hours Lecture
Prerequisite: ENGL 1B or ENGL 1BMC or ENGL 2 or ENGL 2MC.
Focuses on expository and research writing, analytical reading, and critical thinking; reading includes several book-length works. Students write at least 6,000 words. ENGL 1A, 1B, and 1C are required for some majors at UC Berkeley; see ASSIST for more information. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 2
Composition and Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A or ENGL 1AMC.
Recommended Preparation: ENGL 1B or 1BMC; LIBR 10 (may be taken concurrently.)
Develops writing and reading skills for logical reasoning and argumentation; satisfies the IGETC & CSU critical thinking requirements. Students write a minimum of 6,000 words. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. Not open to students who have completed ENGL 2MC.

ENGL 2MC
Composition and Critical Thinking:
Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 1A or ENGL 1AMC.
Recommended Preparation: ENGL 1B or 1BMC; LIBR 10 (may be taken concurrently.)
Develops writing and reading skills for logical reasoning and argumentation with a multicultural emphasis. Satisfies the IGETC & CSU critical thinking (ENGL 2) requirements and Cabrillo multicultural requirement by Students write a minimum of 6,000 words. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. Not open to students who have completed ENGL 2.

ENGL 4
Techniques of Peer Tutoring
2 units; 6 hours Laboratory
Prerequisite: ENGL 1A/1AMC
Provides theoretical training and practical experience as a writing tutor; lab hours are spent observing and tutoring in the Writing Center, English as a Second Language Lab, in English classes, and online. Students also meet in a weekly seminar with the instructor to discuss common writing problems and tutoring techniques.
Transfer Credit: Transfers to CSU.

ENGL 6
Creative Techniques for Teaching Writing
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC
Corequisite: 1 unit ENGL 99G or ENGL 80S.
Recommended Preparation: READ 100.
Provides theoretical and practical training as student-teacher interns for teaching writing. Students meet three hours per week in a seminar with the instructor to discuss teaching theory, techniques, and lesson-planning for creatively based writing lessons. Student pairs are placed in K-12 classrooms in a work-based service learning project to present writing lessons (ENGL 99G). Students may substitute a relevant Special Studies project for the classroom experience (ENGL 80S).
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Special articulation agreement in effect with UCSC.

ENGL 12A
Creative Writing: Prose
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 4 times.
Teaches techniques of fiction writing; in-class discussion of student writing.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 12ABCDEF maximum credit, 6 units per college. CAN ENGL6.

ENGL 12B
Creative Writing: Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 4 times.
Teaches techniques of poetry writing; in-class discussion of writing by students and published poets.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 12ABCDEF maximum credit, 6 units per college.
ENGL 12C
Creative Writing: Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 4 times.
Teaches techniques of screenwriting in a workshop format; in-class discussion of professional and student screenplays; viewing and analyzing of selected films.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 12D
Creative Writing: Drama
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 4 times.
Teaches techniques of playwriting; in-class discussion of student writing.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 12E
Creative Writing: Autobiography
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 4 times.
Teaches techniques of autobiography writing; in-class discussion of student writing and of published memoirs.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 12F
Introduction to Creative Writing
3 units; 3 hours Lecture
Prerequisite: ENGL 1A /1AMC.
Repeatability: May be taken 4 times.
Teaches techniques and traditions of various creative writing forms, including fiction, poetry, drama, and other genres; in-class discussion of student writing. Students will write and revise at least 6,000 words.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 12ABCDEF maximum credit, 6 units per college.

ENGL 14A
Advanced Fiction Workshop
3 units; 3 hours Lecture
Prerequisite: ENGL 12A.
Repeatability: May be taken 4 times.
Develops fiction writing skills and knowledge as a continuation of ENGL 12A through writing, discussion and appropriate reading. Students will write a minimum of 6000 words.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 14B
Advanced Poetry Workshop
3 units; 3 hours Lecture
Prerequisite: ENGL 12B.
Recommended Preparation: ENGL 1B/1BMC.
Repeatability: May be taken 4 times.
Develops poetic skills and knowledge as a continuation of ENGL 12B through writing, discussion, and appropriate reading. May focus through a special theme.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 14C
Advanced Screenwriting Workshop
3 - units; 3 hours Lecture
Prerequisite: ENGL 12C
Repeatability: May be taken 4 times.
Develops screenwriting skills as a continuation of ENGL 12B through extensive writing, workshop discussion and script read-throughs; uses appropriate reading, viewing and analysis of selected films to augment discussions and critiques. Students will write a minimum of 6,000 words.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 14E
Autobiography Workshop
3 units; 3 hours Lecture
Prerequisite: ENGL 12E.
Repeatability: May be taken 4 times.
Continuation of ENGL 12E; further develops memoir-writing skills and knowledge at a more advanced level through writing, discussion, and appropriate reading.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 16
Magazine Editing and Publication
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 3 times.
Teaches magazine editing and production techniques through lecture, demonstration, and practical experience gained through producing a literary or other magazine, including an on-line version.
Transfer Credit: Transfers to CSU.
ENGL 17
Studies in Literary Themes/Types
1 - 3 units; 1 hour Lecture
Prerequisite: ENGL 1A/1AMC.
Recommended Preparation: ENGL 1B/1BMC.
Repeatability: May be taken 2 times. Subject matter must be different with each repetition.

Studies a particular literary theme, genre, movement, tradition; a study of a literary topic in a particular historical, political, social, or cultural context. Readings vary with course topic.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Must be taken for a minimum of 3 units to transfer to UC.

ENGL 18
Studies in Individual Writers
1 - 3 units; 1 hour Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 4 times. If different writers are studied.

Examines the works of a single writer or a group of related writers.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Must be taken for a minimum of 3 units to transfer to UC.

ENGL 20A
Children’s Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.

Surveys old and new books for children, including the nature of literary values in these works. Standards of evaluation are discussed. Emphasis on fiction, folklore, storytelling, and the history of children’s books.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 20A & 20B combined-maximum credit-1 course.

ENGL 20B
Children’s Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.

Surveys children’s literature with emphasis on illustration, picture books, poetry and mid-twentieth century authors.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: ENGL 20A & 20B combined-maximum credit-1 course.

ENGL 23A
News Writing and Reporting
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC or equivalent experience.

Covers the basics of newsgathering and writing for the print media.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN JOURN2.

ENGL 24A
Native American Prose and Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.

Surveys contemporary Native American literature of North America, including short stories, poetry, novels and criticism, with emphasis on the historical, philosophical, spiritual, political and aesthetic contexts.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 24B
Native American Prose and Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.

Surveys Native American writers, from the 18th century up to the early 20th century, examining the continuity of value systems and experience, as well as key differences between early and new Native writers. Emphasis on the historical, philosophical, spiritual, political and aesthetic contexts.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 30A
American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Recommended Preparation: ENGL 1B/1BMC.

Surveys major American writers from the colonial period to the 1880s, including representative texts by writers such as Bradstreet, Franklin, Cooper, Emerson, Hawthorne, Poe, Douglass, Whitman, and Dickinson.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGL14.

ENGL 30B
American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Recommended Preparation: ENGL 1B/1BMC.

Surveys major American writers from the 1880s to the present, including the works of such writers as Twain, James, Crane, Pound, Frost, Wharton, Stevens, Eliot, Hughes, Williams, Fitzgerald, Hemingway, and Faulkner, as well as more contemporary writers such as Ellison, Tennessee Williams, Miller, and Morrison.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGL16.

ENGL 31
The Novel
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.

Emphasizes fictional techniques, the history of the novel, and critical theory through careful reading and analysis of selected novels.
Transfer Credit: Transfers to CSU. Transfers to UC.
ENGL 32
The Short Story
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Emphasizes fictional techniques and critical theories based on careful reading of selected short stories.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 33
Introduction to Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Examines the nature of poetry as an art form, its language, its techniques, and its traditions; a wide selection of poets and poetic styles will be studied and students will have the opportunity to hear guest poets read and to attend local poetry readings.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 34
Shakespeare
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Recommended Preparation: ENGL 1B/1BMC.
Introduces the plays and sonnets of William Shakespeare within the social, political, and cultural contexts in which they were written and presented. Examines several plays and sonnets in detail.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 39
Chicana/o-Latina/o Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Studies various genres of Chicana/o-Latina/o literature as an important part of the literary heritage of the United States that has helped to develop and document communities of people.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 40
Latin American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Introduces translated works of legend, myths, poetry, prose, and drama of major Latin American writers as representative of the cultural and ideological forces that produced them, from pre-Columbian times to the present.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 41A
African American Literature:
Slave Narrative to 20th Century
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Surveys early African American literature, including short stories, poetry, novels and criticism. Students will be thoroughly acquainted with a scope of African American authors, poets and social philosophers, and will gain the skills for deconstructing their works and recognizing their contributions to the contextual fabric of America. Through these texts, students will also gain insight into the cultural dynamics of the African diaspora. May be offered in a distance learning format.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 41B
African American Literature:
20th Century to Present
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Surveys African American literature from the turn of the 20th century to the present, including short stories, poetry, novels, films and criticism. Students will be thoroughly acquainted with a scope of African American authors, poets and social philosophers, and will gain the skills for deconstructing these texts and recognizing their contributions to the contextual fabric of America. Through these works, students will also gain insight into the cultural dynamics of the African diaspora. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 45
World Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Repeatability: May be taken 2 times.
Surveys significant literary works, mainly from non-Western cultures, written in or translated into English, including short stories, poetry, novels, plays, films, and/or criticism. Investigates primary texts within the historical, political, social, and cultural contexts in which they were produced. Also investigates primary texts within historical, social, and cultural contexts in which they have been read, validated or marginalized.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 46A
Major British Writers I
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Recommended Preparation: ENGL 1B/1BMC.
Surveys major British writers from the Middle Ages through 1785, including representative texts by writers such as the Chaucer, Spenser, Shakespeare, Donne, Milton, Swift, Pope. Relates the literature to the social, political, and cultural contexts in which it was written and read.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGL8.
ENGL 46B
Major British Writers II
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Recommended Preparation: ENGL 1B/1BMC.
Surveys major British writers from 1785 to the present, including representative texts by such writers as Blake, Wollstonecraft, Wordsworth, Keats, Austen, Dickens, Conrad, Yeats, Woolf, Joyce, Eliot, and Pinter; also includes texts by major non-British writers in English, such as Beckett, Gordimer, Achebe, Friel, Heaney, and Rushdie. Relates the literature to the social, political, and cultural contexts in which it was written.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ENGL 10.

ENGL 47
The Literature of the Storyteller
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Centers on the literature and techniques of the storyteller from various cultures around the world.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 48A
Mythology and Folklore
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Explores classical mythology in literature and other arts, including the origins and recurrence of myths and their significance and relevance today.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 49A
The Language of Film:
Film History
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Introduces students to the history of film, film technology, various film styles, genres, and movements, as well as helping them develop and apply a knowledge of film terminology and theories to critically analyze American and international cinema. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

ENGL 49B
The Language of Film:
Special Topics in Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
This course emphasizes the detailed study of a special topic in film, such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. May be offered in a Distance learning format.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

ENGL 50
Publications: Writing for the College Paper
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Recommended Preparation: ENGL/JOURN 23A.
Repeatability: May be taken 4 times.
Trains students to cover beats, investigate leads, and write stories for the college newspaper. This course is writing intensive, and word processing skills are necessary. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

ENGL 59A-Z
The Language of Film: Special Topics in Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Emphasizes the detailed study of a special topic in film, such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

ENGL 100
Elements of Writing
3 units; 3 hours Lecture
Prerequisite: ENGL 255 or ESL 204B.
Corequisite: ENGL 100L or 115.
Recommended Preparation: Eligibility for READ 100.
Repeatability: May be taken 3 times.
Develops skills in writing a variety of academic and professional documents, including personal narratives, analytical essays, reports, and persuasive prose; students read and discuss prose models, complete timed writings, and prepare portfolios of written work. Students write, revise, and edit a minimum of 6,000 words. May be offered in a Distance-Learning Format.

ENGL 100L
Writing Laboratory
1 unit; 2 hours Laboratory
Repeatability: May be taken 3 times.
Practice and study of grammar, sentence structure, punctuation and style in student writing; students meet weekly in a small workshop with an hour of homework per week. May be taught in a distance learning format. Credit/no credit grading only.
ENGL 115  
Lessons in Punctuation and Sentence Structure  
1 unit; 1 hour Lecture  
Prerequisite: Eligibility for ENGL 100.  
Corequisite: ENGL 100.  
Repeatability: May be taken 3 times.  
Practice and study of grammar, sentence structure, punctuation and style in a lecture and discussion format with the ENGL 100 class. Only offered in conjunction with off-campus, weekend, and special ENGL 100 sections. Credit/no credit grading only. May be offered in a Distance-Learning Format.

ENGL 153  
Spelling Lab  
1 - 2 units; 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Provides individualized instruction on spelling patterns and rules under the supervision of a writing tutor.

ENGL 155A-Z  
Special Topics in Writing Study Skills  
½ - 1 units; 1½ hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. May be repeated under different special topics.  
Provides individualized lab instruction in note-taking, planning, drafting, and editing various forms of timed and revised writing; assignments are tailored to specific topic areas. May be offered in a Distance-Learning Format.

ENGL 157  
Business and Technical Writing  
3 units; 3 hours Lecture, 3 hours Laboratory  
Prerequisite: Eligibility for ENGL 1A or completion of BUS 156 and ENGL 100.  
Techniques for writing, organizing, and editing business and technical documents. Includes audience analysis and strategies for delivering positive, negative, or persuasive information through electronic and paper communications.

ENGL 250  
Basic Sentence Writing  
1 - 2 units; 2 hours Laboratory  
Practice in grammar, sentence structure, reading comprehension, and short essay composition. Tutorial supervision; credit/no credit based on the successful completion of short reading and writing assignments, as well as exercises to develop basic skills.

ENGL 251  
Lessons in Sentence Writing  
1 unit; 1 hour Lecture  
Covers standard English usage and sentence patterns through lecture, discussions and exercises. Only offered in conjunction with off-campus, weekend or special ENGL 255 classes. Credit/no credit grading only.

ENGL 255  
Basic English  
4 units; 4 hours Lecture  
READ 255 or READ 206 (1-3 units)  
Develops writing and grammar skills that are below college level with emphasis placed on essay writing, grammar, word processing, and other skills for success in college. Students write at least 6,000 words and assemble portfolios of revised and timed writings. Credit/no credit grading only.

ENGL 256A-Z  
Special and Topical Approaches to Basic Writing  
4 units; 4 hours Lecture  
Parallels ENGL 255 but focus around a single topic or special approach (reading and writing about the newspaper, health issues, the family, writing blocks). Credit/No Credit grading only.

ENGL 280  
Topics in Second Language Grammar  
3 units; 3 hours Lecture  
Prerequisite: Placement in ENGL 255 or higher level course.  
For non-native speakers taking or qualifying for ENGL 255, 100, 1A, or 1B. Supplementary course focusing on lingering problems in grammar, syntax, and idiom.

ENGL 290  
Writing Fundamentals  
1 - 3 units; 3 hours Laboratory  
Focus on writing practice through individualized, tutorial-based instruction: grammar and style, basic composition (including formatting on the computer), reading and vocabulary, and introduction to college culture. Study may extend through the entire semester or be completed in shorter, intensive modules. Course may be taken credit/no credit only.

ENGL 501  
Shakespeare’s Poetic Drama for Seniors  
0 units; 3 hours Lecture  
Repeatability: May be repeated.  
Introduces the plays and sonnets of William Shakespeare within the social, political, and cultural context in which they were written, performed, and attended or received. Examines the cultural functions and significance of Shakespeare study in the 20th and 21st centuries.
ENGL 502
**Autobiography Writing for Seniors**
0 units; 2 hours Lecture
Repeatability: May be taken 4 times.
Techniques and practice of autobiography writing; in-class discussion of student writing.

ENGL 502A
**Autobiography Writing for Seniors**
0 units; 2 hours Lecture
Repeatability: May be taken 4 times.
Studies techniques and practice of autobiography writing through in-class analysis of student writing.

ENGL 502L
**Supervised Tutoring in Writing**
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Studies individual tutorial assistance on college writing assignments; designed to support students who use writing tutorial services on an as-needed basis. May be offered in a Distance-Learning Format.

ENGL 549A
**The Language of Film for Seniors: Film History**
0 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Introduces students to the history of film, film technology, various film styles, genres, and movements, as well as helping them develop and apply a knowledge of film terminology and theories to critically analyze American and international cinema. This is a non-credit course for senior citizens taught with English 49A. Seniors should attend the 1st class meeting and may register in the 3rd week of classes. May be taught in a Distance-Learning Format.

ENGL 549B
**The Language of Film for Seniors: Special Topics in Film**
0 units; 3 hours Lecture
Repeatability: May be taken 4 times.
This course emphasizes the detailed study of a specific topic in film such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. Senior citizens should attend the 1st class meeting and will be allowed to register on the 1st day of the 3rd week of classes. This is a non-credit course taught with ENGL 49B. May be taught in a Distance-Learning Format.

ENGL 553
**Supervised Tutoring in Writing**
0 units; 5 hours Laboratory
Repeatability: May be repeated.
This non-credit course provides individual tutorial assistance on college writing assignments. The course is designed to support students who will use writing tutorial services on an as-needed basis, and who may come only once or twice during the semester. May be offered in a Distance-Learning Format.

ENGL 559A-Z
**The Language of Film for Seniors: Special Topics in Film**
0 units; 3 hours Lecture
Repeatability: May be taken 4 times.
Emphasizes the detailed study of a special topic in film, such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme; or the screen versions of literary works. Senior citizens should attend the 1st class meeting and may register in the 3rd week of classes. This is a non-credit course taught with ENGL 49B. May be taught in a Distance-Learning Format.

ENGLISH AS A SECOND LANGUAGE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Joyce Flager, Program Chair (831) 477-3205
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

English as a Second Language Courses

**ESL 200A**
**Orientation to ESL**
6 units; 6 hours Lecture
This course is designed to provide new students of English as a Second Language with the basic vocabulary to begin ESL studies at Cabrillo.

**ESL 200L**
**English Development Lab: Orientation**
½ - 2 units; ½ hours Laboratory
Provides one-to-one and small group tutorial assistance to orient students to the English language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is credit/no credit and operates on a drop-in or appointment basis.
ESL 201A
Foundations of ESL–Low Level
6 units; 6 hours Lecture
Prerequisite: ESL 200A or equivalent.
A writing preparation class for second language students with an introduction to verbs, tenses, and parts of speech. Emphasis will also be placed on the development of speaking and listening skills. Simple sentences will serve as the focus for writing development. This course may be offered in a Distance-Learning Format.

ESL 201B
Foundations of ESL–High Level
6 units; 6 hours Lecture
Prerequisite: ESL 201A or equivalent.
A writing preparation class for second language students with an expanded introduction to basic verb tenses and parts of speech. Emphasis will also be placed on the development of vocabulary in speaking and listening skills. Short passages using mostly simple sentences will serve as the focus for written work. This course may be offered in a Distance-Learning Format.

ESL 201L
English Development Lab: Foundation
½ - 2 units; 1½ hours Laboratory
Provides one-to-one and small group tutorial assistance as a foundation for students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is credit/no credit and operates on a drop-in or appointment basis.

ESL 202A
Beginning ESL–Low Level
6 units; 6 hours Lecture
Prerequisite: ESL 201A or equivalent.
A beginning writing class for second language students with further work on basic grammar, usage, parts of speech, and simple and compound sentences. In addition, short selected readings will be assigned for class discussion, written response and sentence-pattern practice. Further development of speaking and listening skills, question construction and appropriate use of common American idioms will be emphasized. Paragraph, e-mail and short letter writing will serve as the focus for written work. This course may be offered in a Distance-Learning Format.

ESL 202B
Beginning ESL–High Level
6 units; 6 hours Lecture
Prerequisite: ESL 202A or equivalent.
A beginning writing class for second language students with further work on basic grammar, usage, parts of speech, and compound/complex sentences. In addition, short selected readings will be assigned for class discussion, written response and sentence-pattern practice. Further development of speaking and listening skills, question construction and appropriate use of common American idioms will be emphasized. Paragraph, e-mail, letter, and short prose writing will serve as the focus for written work. This course may be offered in a Distance-Learning Format.

ESL 202L
Beginning English Development Lab
½ - 2 units; 1½ hours Laboratory
Provides one-to-one and small group tutorial assistance to beginning students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is credit/no credit and operates on a drop-in or appointment basis.

ESL 202R
Beginning Reading and Vocabulary
2 - 4 units; 2 hours Lecture
Introduces basic reading skills by using a variety of texts while focusing on vocabulary development and reading comprehension. Students identify organizational elements and develop reading strategies by using forms, simple manuals, short articles, and short stories.

ESL 203A
Intermediate ESL–Low Level
6 units; 6 hours Lecture
Prerequisite: ESL 202B or equivalent.
Prepares second-language students for English composition involving intermediate grammar structures, punctuation, and idioms. Requires essay development and journal writing. May be offered in a Distance-Learning Format.

ESL 203B
Intermediate ESL–High Level
6 units; 6 hours Lecture
Prerequisite: ESL 203A.
Prepares second-language students for English composition involving high-intermediate grammar structures, punctuation and idioms. Requires short essay and journal writing. May be offered in a Distance-Learning Format.

ESL 203L
Intermediate English Development Lab
½ - 2 units; 1½ hours Laboratory
Provides one-to-one and small group tutorial assistance to intermediate students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is credit/no credit and operates on a drop-in or appointment basis.

ESL 203R
Intermediate Reading and Vocabulary
2 - 4 units; 2 hours Lecture
Recommended Preparation: ESL 202R.
Develops reading by using a variety of texts and expands vocabulary, writing, and discussion skills. Emphasis on reading strategies, comprehension, and vocabulary. Provides strategies to integrate reading and writing skills. Students will analyze and interpret material in writing and discussion.
**ESL 204A**  
**Advanced ESL–Low Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 203B or equivalent.  
Covers advanced English composition for second-language students who are working toward a mastery of grammar, usage, and punctuation. Practice note-taking, journal writing and examination writing, but emphasis will be on the development of a student’s written fluency in essay writing. May be offered in a Distance-Learning Format.

**ESL 204B**  
**Advanced ESL–High Level**  
6 units; 6 hours Lecture  
Prerequisite: ESL 204A or equivalent.  
Prepares second-language students for advanced English composition involving mastery of grammar, usage, and punctuation. May cover note-taking, journal writing and examination writing, but emphasis will be on the development of a student’s written fluency in a variety of essay modes. May be offered in a Distance-Learning Format.

**ESL 204L**  
**Advanced English Development Lab**  
½ - 2 units; 1½ hours Laboratory  
Provides one-to-one and small group tutorial assistance to students for whom English is not the first language. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading, and conversational difficulties. This course is credit/no credit and operates on a drop-in or appointment basis.

**ESL 220A**  
**English for Childcare Professionals–Level I**  
3 units; 3 hours Lecture  
A basic skills writing class for second language students with a specific focus on the basic vocabulary and concepts of Early Childhood Education. It includes an introduction to grammar, usage, parts of speech, simple and compound sentences. The focus for written work will be the sentence and paragraph. Speaking and listening skills will also be practiced.

**ESL 220B**  
**English for Childcare Professionals–Level II**  
3 units; 3 hours Lecture  
Prerequisite: ESL 220A.  
A basic skills writing class for second language students with a specific focus on the vocabulary, concepts, and theory of Early Childhood Education. It includes continuing work on grammar, usage, parts of speech, simple and compound sentences. The focus for written work will be the sentence, and paragraph development. Speaking and listening skills will also be practiced.

**ESL 222A**  
**ESL Individualized Grammar Module A**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of the verb “be” in past and present tense forms under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

**ESL 222B**  
**ESL Individualized Grammar Module B**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of the present progressive and simple present tenses, and non-action verbs under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

**ESL 222C**  
**ESL Individualized Grammar Module C**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of the simple past tense and irregular verb forms under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

**ESL 222D**  
**ESL Individualized Grammar Module D**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of the future tenses under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

**ESL 222E**  
**ESL Individualized Grammar Module E**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of the future tenses under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

**ESL 222F**  
**ESL Individualized Grammar Module F**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of modals and modal-like expressions under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

**ESL 222G**  
**ESL Individualized Grammar Module G**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of of phrasal verbs under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

**ESL 222H**  
**ESL Individualized Grammar Module H**  
½ unit; 1½ hours Laboratory  
Develops skill in the use of gerunds and infinitives under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.
ESL 222J
ESL Individualized Grammar Module J
½ unit; 1½ hours Laboratory
Develops skill in the use of the passive voice under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

ESL 222K
ESL Individualized Grammar Module K
½ unit; 1½ hours Laboratory
Develops skill in the use of articles and determiners under the guidance of Writing Lab staff. Credit/No Credit grading. Open Entry/Open Exit: enrollment is permitted through the 12th week of instruction.

ESL 253A
Beginning ESL Oral Communication
4 - 6 units; 4 hours Lecture
Recommended Preparation: Concurrent enrollment in ESL 200A, or ESL 201A or ESL 201B.
Develops oral skills using basic conversation in small groups and one-on-one, listening comprehension, pronunciation and intonation, and role playing simulations.

ESL 253B
Intermediate ESL Oral Communication
4 - 6 units; 4 hours Lecture
Recommended Preparation: ESL 253A or equivalent experience.
Small group discussion, listening comprehension, pronunciation, intonation, vocabulary, American idioms, reading, taped conversations, lecture note-taking.

ESL 253C
Advanced ESL Oral Communication
4 - 6 units; 4 hours Lecture
Recommended Preparation: ESL 253B or equivalent experience.
 Prepares students for entry into regular Cabrillo classes using advanced discussion in small groups and one-on-one. Activities involve listening comprehension, abstract level readings from academic texts, lecture note-taking, pronunciation, intonation, and American idioms. Bridges to mainstream classes.

ESL 259
Vocabulary Development for Specific Careers
3 units; 3 hours Lecture
Expands knowledge of specialized vocabulary for specific jobs. Students use the Internet and visit work sites in teams with common career goals.

ESL 260A
ESL Writing Improvement–Beginning Low Level
2 units; 2 hours Lecture
 Writing improvement workshop for English as a Second Language students focusing on self-editing very basic grammar and sentence patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Credit/no credit grading only. May be offered in a Distance-Learning Format.

ESL 260B
ESL Writing Improvement–Beginning High Level
2 units; 2 hours Lecture
Writing improvement workshop for English as a Second Language students focusing on high beginning grammar and sentence patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Credit/no credit grading only. May be offered in a Distance-Learning Format.

ESL 261A
ESL Writing Improvement–Intermediate Level
2 units; 2 hours Lecture
Writing improvement workshop for English as a Second Language students focusing on self-editing intermediate grammar as well as sentence and paragraph patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Credit/no credit grading only. May be offered in a Distance-Learning Format.

ESL 261B
ESL Writing Improvement–Advanced Level
2 units; 2 hours Lecture
Writing improvement workshop for English as a Second Language students focusing on self-editing advanced grammar as well as sentence, paragraph and essay patterns for new and continuing ESL students. Students will receive individualized instruction for writing and grammar problem areas and join small groups to work on common problems. Credit/no credit grading only. May be offered in a Distance-Learning Format.

ESL 270P
Pronunciation Improvement for ESL Students
1 - 3 units; 1 hour Lecture
Improves clarity of pronunciation for English language learners. Intensive focus on standard American English vowel sounds and basic stress and rhythm patterns.

ESL 271P
Accent Reduction for ESL Students
1 - 3 units; 1 hour Lecture
Improves accuracy in pronunciation leading to fluency and confidence in spoken English. The focus is on building awareness and practicing pronunciation points that are central to clarity in spoken communication, including consonant sounds, intonation patterns, and conversational strategies.

ESL 280CC
Conversation for Childcare Professionals
1 - 3 units; 1½ hours
Recommended Preparation: ESL 201 A/B.
This is an intermediate conversation class for second language students with a focus on Early Childhood Education topics. Speaking and listening skills will be practiced.
ESL 280AC  
American Culture  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Any ESL class.  
Teaches US culture by learning about the ways Americans think, act, and feel using English language as the basis for language development.

ESL 280B  
Advanced Verb Clinic  
2 units; 2 hours Lecture  
Recommended Preparation: Successful completion of ESL 280A or ESL 202A/202B or equivalent experience.  
Learn and review advanced verb tenses and uses including the perfect progressive tenses, the conditional, the passive and more.

ESL 280CC  
Conversation for Childcare Professionals  
1 - 3 units; 1½ hours.  
Recommended Preparation: ESL 201 A/B.  
This is an intermediate conversation class for second language students with a focus on Early Childhood Education topics. Speaking and listening skills will be practiced.

ESL 280J  
Special Topics: Conversation in the Workplace  
1 - 3 units; 1 hour Lecture  
Designed for second-language students who wish to focus on vocabulary development and practice for workplace-related oral communication.

ESL 280LF  
Language through Film  
½ - 1 units; 1½ hours Laboratory  
Develops skills in conversation, listening, basic writing, and vocabulary skills by analyzing films in English; provides individualized lab instruction on a drop-in basis.

ESL 280PRP  
ESL Preparation for ENGL100  
3 units; 3 hours Lecture  
Prepares ESL students for college writing beyond the ESL classroom.

ESL 280SS  
Oral/written Survival Skills  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Any ESL class.  
Learn more about community resources and responding to a particular situation appropriately as the basis for language development.

ESL 280USC  
Do’s and Don’ts of US Culture  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Any ESL class.  
Teaches US culture by learning about the ways Americans think, act, and feel using English language as the basis for language development.

ESL 280VM  
Vocabulary Through Music  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Any ESL course.  
Emphasizes vocabulary through American music and lyrics as the basis for language development. In addition, students practice their vocabulary using brief reading passages containing cultural and historical events, which provide opportunities for vocabulary reinforcement, conversation, and basic grammar.

ESL 502  
Supervised Tutoring in Writing  
0 units; 5 hours Laboratory  
Repeatability: May be repeated.  
Provides individual tutorial assistance on college writing assignments; designed to support students who use writing tutorial services on an as-needed basis. May be offered in a Distance-Learning Format.

ESL 553  
Supervised Tutoring in Writing  
0 units; 5 hours Laboratory  
Repeatability: May be repeated.  
This non-credit course provides individual tutorial assistance on college writing assignments. The course is designed to support students who will use writing tutorial services on an as-needed basis, and who may come only once or twice during the semester. May be offered in a Distance-Learning Format.

ENVIRONMENTAL SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
David Schwartz, Program Chair, (831) 479-6495
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Environmental Science Courses

ES 10  
Introduction to Environmental Science  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
A detailed scientific survey of the many physical, biological and chemical systems that constitute the earth’s environment, as well as the impact of human systems. Topics covered include geological processes, hydrology, nonrenewable and renewable resources, climatology and meteorology, population biology, ecosystems, biodiversity, biochemistry and the chemistry of air and water pollution. Also covered is the analysis of political and economic impacts on the environment.  
Transfer Credit: Transfers to CSU. Transfers to UC.
ES 20
Environmental Policy-Making and Analysis
3 units; 3 hours Lecture
Recommended Preparation: PS 1 or PS 5; Eligibility for ENGL 100 and READ 100.

An introduction to the political economy of environmental quality and natural resource management. Topics include socioeconomic causes of resource degradation, governmental and interest group roles in developing and implementing environmental policy, policy options, benefit-cost analysis, uses of science in decision-making, case studies, policy effectiveness and reform. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC.

FOREIGN LANGUAGES
see WORLD LANGUAGES

FRENCH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

French Courses

FR 1
Beginning French
4 units; 4 hours Lecture
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Develops speaking, listening comprehension, reading, and writing skills, with French as the primary language of instruction. Students communicate through class activities and begin study of French-speaking cultures. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC. CAN FREN2.

FR 1A
Beginning French-First Half
2 units; 2 hours Distance Ed video one-way (TLCRS).
Equivalent to the first half of FR 1. Development and practice of elementary speaking, listening, reading, and writing skills. Offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU.

FR 2
Elementary French
4 units; 4 hours Lecture
Prerequisite: FR 1, or two years of high school French with a grade of 'C' or better, or the equivalent.
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with French as the primary language of instruction. Students communicate through class activities and continue study of French-speaking cultures. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC. CAN FREN4.

FR 3
Intermediate French
4 units; 4 hours Lecture
Prerequisite: FR 2 or equivalent.
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Further develops skills acquired in first-year French: review and expand grammar and vocabulary. Students will study French-speaking cultures through reading and discussion of literary and cultural texts. Develops writing skills. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC. CAN FREN8.

FR 4
Intermediate French
4 units; 4 hours Lecture
Prerequisite: FR 3 or equivalent.
Corequisite: FR 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Students will study advanced structures and vocabulary, will increase discussion and analysis of literary and cultural texts, and will further develop writing skills. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC. CAN FREN10.

FR 10
French Conversation
3 units; 3 hours Lecture
Prerequisite: FR 2 or high school equivalent (3 years of high school French).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.

Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students discuss culturally relevant topics and situations drawn from written and audio-visual sources. Transfer Credit: Transfers to CSU. Transfers to UC.
FR 20A-Z

Studies in French Language
½ - 4 units; ½ hour Lecture or 1½ hours Laboratory
Prerequisite: FR 2.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
In-depth studies of advanced topics in French language.
Transfer Credit: Transfer to CSU. Transfer to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

FR 50L

French Language Laboratory
1 - 4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of French 1-4. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

GENERAL SCIENCE

Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

Information for General Science Majors
The major in General Science provides a broad background in the sciences. Students completing this degree will have familiarity with concepts in many of the disciplines of science, including proficiency in laboratory methods. This degree may prepare the student to transfer to various science programs. Requirements for further study vary from campus to campus. See a counselor and consult catalogs for specific information on admission and general education requirements.
Information on course equivalencies for major requirements at UC and CSU is available on the World Wide Web at www.assist.org.

MODEL PROGRAM FOR GENERAL SCIENCE
The following model program fulfills requirements for the A.S. or A.A. Degree in General Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Associate in Science Degree in General Science
20 units of laboratory science, as defined by courses denoted with an asterisk (*) in Area B of the requirements for the A.A. Degree, in three of the five following areas. Cannot include BIO 10, CHEM 10, PHYS 10, ENGR 5 or 25.
Life Forms (defined in Area B in A.A. requirements)
Chemistry
Physics
Engineering
Earth and Space Sciences (Astronomy, Physical Geography, Geology, Meteorology or Oceanography)
Mathematics: 4 units minimum from MATH 4, 5 (series), or 12
Elective units (to achieve the required total of 30) chosen from Area B list in the A.S. degree requirements, Computer Science, or Engineering.

Associate in Arts Degree in General Science
16 units of laboratory science, as defined by courses denoted with an asterisk (*) in Area B of the requirements for the A.A. Degree, in three of the four following areas. Cannot include BIO 10, CHEM 10, or PHYS 10.
Life Forms (defined in Area B in A.A. requirements)
Chemistry
Physics
Earth and Space Sciences (Astronomy, Physical Geography, Geology, Meteorology or Oceanography)
Mathematics: 4 units minimum from MATH 4, 5 (series), or 12

Associate in Science Degree in General Science
Units
General Education .................................................. 21
Laboratory Sciences(*) ............................................. 20
Mathematics(*) ...................................................... 4
Approved Electives .................................................. 6
Electives ............................................................... 9
Total for A.S. Degree in General Science 60

*please see description above

Associate in Arts Degree in General Science
Units
General Education .................................................. 30
Laboratory Sciences(*) ............................................. 16
Mathematics(*) ...................................................... 4
Electives ............................................................... 10
Total for the A.A. Degree in General Science 60

*please see description above
GEOGRAPHY

Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
David Balogh, For Additional Information, (831) 479-6346
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Geography Majors

Geography is a comprehensive study of the earth. Physical geography is a natural science that investigates the causes and distribution of natural phenomena. Geographers study weather, climate, landform soils, tides, and water bodies. Cultural geography is a social science which studies and compares location and distribution of human values. Religion, technology, cultures, languages, economics, political ideologies, urban areas, population and recreation combine to produce a cultural landscape. Regional geography, also a social science, concentrates on specific regions of the world.

Geographers are employed in a variety of settings: title companies, city and county planning agencies, travel agencies, national and state parks, and many others. Positions are available in both private and government sectors. Students with advanced degrees may find positions in research or college teaching.

Model Program for Geography

The following model program fulfills requirements for the A.A. Degree in Geography at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Model Program for Geography

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 1 Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2 Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>Highly Recommended</td>
<td></td>
</tr>
<tr>
<td>MATH 12 Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>Plus one course chosen from the following:</td>
<td></td>
</tr>
<tr>
<td>GEOG 4 World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5 California, a Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 7 Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>OCEAN 10 Introduction to Oceanography</td>
<td>4</td>
</tr>
</tbody>
</table>

Approved Geography electives for the A.A. Degree

Any courses listed in Area D on the A.A. Degree requirements will satisfy additional Geography elective requirements for the A.A. Degree. Prospective Geography majors are encouraged to consult a Geography instructor regarding recommended elective courses.

Associate in Arts Degree in Geography

General Education .................................................. 30
Geography Core Courses ......................................... 9-14
Approved Electives ............................................... 6-10
Other Electives .................................................. 6-11
Total for A.A. Degree in Geography 60

Geography Courses

GEOG 1
Physical Geography
3 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies the natural environment of Earth and its inhabitants including the nature, distribution, and relationship of climate, landforms, natural vegetation, soils and hydrology, and the effect of the sun and moon upon Earth processes.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN GEOG2.

GEOG 1L
Physical Geography Laboratory
1 unit; 3 hours Laboratory
Prerequisite: GEOG 1 or concurrent enrollment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides experiments and exercises relating to topics presented in GEOG 1-Physical Geography, including maps and mapping, the seasons, weather, geomorphology, and location drills.
Transfer Credit: Transfers to CSU. Transfers to UC.

GEOG 2
Cultural Geography
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the geography of culture including population dynamics, social customs, language, religion, political organization, agricultural systems, cities, industry, and environmental impacts. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN GEOG4.

GEOG 3A
Map Reading
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches map reading techniques, especially USGS quadrangles, the use and organization of the world atlas, gazetteer, and the construction of terrain profiles.
Transfer Credit: Transfers to CSU.

GEOG 4
World Regional Geography
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the world’s geographic regions including historical development, cultures, economics, and spatial relationship of the geographic realms. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.
GEOG 5
California, A Geography
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies the California landscape, the physical (landforms, climate, soils, resources), and the cultural (water, agriculture, urban, recreation, history, population) including the unique regions of the state and how they differ from each other.

Transfer Credit: Transfers to CSU. Transfers to UC.

GEOG 7
Weather and Climate
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Explores the science of what makes weather and climate; including climate types and their distribution, the effects of weather over time on agriculture, house types, environmental change, and the economic impacts of climate and weather.

Transfer Credit: Transfers to CSU. Transfers to UC.

GEOG 9
Field Studies in Geography
1 - 3 units; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 4 times.

Studies physical and cultural problems in geography first hand with an introduction to field methods.

Transfer Credit: Transfers to CSU. Transfers to UC with limits: Maximum credit- 1 course.

GEOLOGY
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
David Schwartz, Program Chair, (831) 479-6495
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

Information for Geology Majors

Geology is the study of Earth materials and processes. A masters or Ph.D. in this field will enable the graduate to have a career in a wide variety of fields such as research, academia, engineering/consulting, geohydrology, seismology, volcanology, geophysics, glaciology, and economic geology (ore and hydrocarbon deposits), to name a few. Geology and Earth Sciences are offered as majors at UC and CSU.

MODEL PROGRAM FOR GEOLOGY

The following model program fulfills requirements for the A.S. Degree in Geology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 10</td>
<td>Introduction to Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1AB</td>
<td>General Chemistry</td>
<td>10</td>
</tr>
<tr>
<td>MATH 5ABC</td>
<td>Analytic Geometry &amp; Calculus I, II, III</td>
<td>12</td>
</tr>
<tr>
<td>PHYS 4ABC</td>
<td>Physics for Scientists and Engineers</td>
<td>15</td>
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<tr>
<td>OR</td>
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<td></td>
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<tr>
<td>PHYS 2AB</td>
<td>General Physics</td>
<td>8</td>
</tr>
</tbody>
</table>

Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGR 1A</td>
<td>Surveying</td>
<td>4</td>
</tr>
<tr>
<td>ES 10</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 15</td>
<td>Environmental Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 20</td>
<td>California Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 25</td>
<td>Geology of National Parks</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>OCEAN 10</td>
<td>Introduction to Oceanography</td>
<td>4</td>
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</tbody>
</table>

Associate in Science Degree in Geology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Core plus Approved Electives</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Total for A.S. Degree in Geology</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Geology Courses

GEOL 10
Introduction to Earth Science
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the phenomena and basic principles of physical geology with laboratory exercises illustrating the nature of minerals, rocks, geological processes, and the use and interpretation of topographic and geologic maps.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN GEOL2.

GEOL 15
Environmental Geology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A physical science survey course dealing with the interactions among Earth systems, humans and the environment. Topics include understanding Earth systems and the physical interactions among different systems, natural disasters (earthquakes, volcanoes, floods, landslides, etc), groundwater, waste disposal, pollution, resources and population, engineering geology and land-use planning. Students will turn in several projects including construction of a land-use map of a local area as a means of learning how multiple geologic factors influence our local land-use.

Transfer Credit: Transfers to CSU. Transfers to UC.
**GEOL 20**  
**California Geology**  
4 units; 3 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
A study of the geology of California. Includes an introduction to the phenomena and basic principles of geology and a survey of the topography, structure, geologic history, climate and resources of each geomorphic province of California. Field trips required.  
*Transfer Credit:* Transfers to CSU. Transfers to UC.

**GEOL 25**  
**Geology of National Parks**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the geologic history, structure and materials of National Parks in North America. Includes a survey of associated internal and external Earth processes responsible for shaping our National Parks such as plate tectonics and mountain building, earthquakes, volcanoes, mass wasting, weathering, erosion, rivers and glaciers.  
*Transfer Credit:* Transfers to CSU. Transfers to UC.

**GEOL 27**  
**Geology of the Pinnacles National Monument**  
1 unit; .82 hours Lecture, .5 hour Laboratory  
Corequisite: ASTRO 27.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
A weekend field lecture course that allows the student to study, through direct observation, the geologic history and processes that have formed and shaped the Pinnacles. Camping and hiking required.  
*Transfer Credit:* Transfers to CSU.

**GEOL 30A-Z**  
**Field Geology**  
1 - 2 units; .7 hour Lecture, .8 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Studies the rocks, minerals and geologic history of the designated field area through direct observation. Various field areas include Point Lobos and the Big Sur Region, Yosemite National Park, Grand Canyon, Zion and Bryce National Parks. Camping may be required. Each A-Z course may be taken only once. Some offerings may be in conjunction with ENGL 17 and HIST 26.  
*Transfer Credit:* Transfers to CSU.

**GERMAN**  
**Business, English, and Language Arts Division**  
James Weckler, Division Dean  
Division Office, Room 501  
H. Jay Siskin, Program Chair, (831) 477-3207  
Counselor: (831) 479-6385 or (831) 479-6225 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6400 for more information  
[http://www.cabrillo.edu/programs](http://www.cabrillo.edu/programs)

**German Courses**

**GRMN 1**  
**Beginning German**  
4 units; 4 hours Lecture  
Corequisite: GRMN 50L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Develops speaking, listening comprehension, reading, and writing skills, with German as the primary language of instruction. Students communicate through class activities and begin study of German culture. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN GERM2.

**GRMN 2**  
**Elementary German**  
4 units; 4 hours Lecture  
Prerequisite: GRMN 1, or two years of high school German with a grade of "C" or better, or the equivalent.  
Corequisite: GRMN 50L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with German as the primary language of instruction. Students communicate through class activities and continue study of German culture. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN GERM4.

**GRMN 3**  
**Intermediate German**  
4 units; 4 hours Lecture  
Prerequisite: GRMN 2 or equivalent.  
Corequisite: GRMN 50L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Further develops skills acquired in first-year German through review and expansion of grammar and vocabulary. Students will study German culture through reading and discussion of literary and cultural texts while they develop writing skills. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN GERM8.
GRMN 4  
Intermediate German  
4 units; 4 hours Lecture  
Prerequisite: GRMN 3 or equivalent.  
Corequisite: GRMN 50L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Expands skills acquired in GRMN 3 through study of more advanced structures and vocabulary. Increases emphasis on discussion and analysis of literary and cultural texts. Further develops writing skills. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU. Transfers to UC. CAN GERM10.

GRMN 10  
German Conversation  
3 units; 3 hours Lecture  
Prerequisite: Two semesters of German or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 3 times.  
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students will discuss culturally relevant topics and situations drawn from written and audio-visual sources.  
Transfer Credit: Transfers to CSU. Transfers to UC.

GRMN 50L  
German Language Laboratory  
1 - 4 units; 2 hours Laboratory  
Repeatability: May be taken 4 times.  
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of GRMN 1-2. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU.

GERONTOLOGY  
Health, Wellness, Physical Education and Athletics Division  
Kathleen Welch, Division Dean  
Division Office, Room 1102  
Debora Bone, Program Chair, 425-0622  
Counselor: (831) 479-6385 or (831) 479-6225 for appointment  
Call 425-0622 for more information  
http://www.cabrillo.edu/programs

Gerontology Courses

GERON 115  
Activity Directors Training for Skilled Nursing Facilities  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100.  
A study of the basics of patient activities for the maintenance of psychosocial physical and mental health of older people. It is designed to meet the California State Health Department criteria for certification of Activity Directors in Skilled Nursing Facilities and Intermediate Care Facilities, but is open to any interested student.

GERON 512  
Caring for the Caregiver  
0 units; 1 hour Lecture  
Repeatability: May be repeated.  
Exploration of information and techniques that promote the emotional health of the caregiver.

GERON 532  
Medicare, Medical, and Medigap Insurance  
0 units; 1½ hours Lecture  
Repeatability: May be repeated.  
Provides consumer information to allow older adults to assess insurance needs, select appropriate insurance coverage and identify resources for dealing with insurance problems and issues.

GERON 533  
Issues in Nutrition for Older Adults  
0 units; 1½ hours Lecture  
Repeatability: May be repeated.  
Shows relationship between diet, health and disease; provides tools to evaluate and compare personal food habits and develop strategies for change as needed for older adults.

GERON 534  
Aging and Sexuality  
0 units; 2 hours Lecture  
Repeatability: May be repeated.  
Examines the physiology of sexual expression and the changes that occur with aging, sexual myths, and personal and cultural expectations of individuals during and after middle age in the area of human sexuality.

GERON 535  
Group Work with the Elderly  
0 units; 1½ hours Lecture  
Repeatability: May be repeated.  
Presents training in adult learning principles, group facilitating and support group operations with emphasis on the special considerations of working with old and very old populations.
GERON 536
Wellness for Seniors
0 units; 1½ hours Lecture
Repeatability: May be repeated.

Provides information and skills to assess current lifestyles and health habits to implement behavior changes.

GERON 537
Health and Aging
0 units; 1½ hours Lecture
Repeatability: May be repeated.

Presents information, tools, and skills to maximize and maintain health in later years and to cope with chronic illness.

HEALTH SCIENCE/COMMUNITY
HEALTH
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Shawn Houghton, Program Chair, (831) 479-6522
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Information for Health Science/Community Health Majors

Health Science and Community Health are the academic disciplines concerned with the promotion of individual and community health as well as the prevention of disease and disability. The focus is on improving the quality of life.

Career opportunities include: health education, health counseling, nutrition counseling, corporate health promotion, drug abuse coordination, health sociology, hospital administration, public health, epidemiology, bio-statistics, and program planning.

This major prepares health practitioners who are technically skilled and effective in a variety of clinical, agency, and community settings. Employers include hospitals, government and voluntary agencies, school districts, and private industries.

MODEL PROGRAM FOR HEALTH SCIENCE

The following model program fulfills requirements for the A.A. Degree in Health Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 4 Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIO 5 Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CAHM 20 Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 30AB Organic and Inorganic Chemistry for Health Occupations</td>
<td>8</td>
</tr>
<tr>
<td>HS 10 Personal Health</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommended from Related Disciplines:
- BIO 6 Microbiology 4
- ECON 1A Introduction to Macroeconomics 3
- ECON 1B Introduction to Microeconomics 3
- PSYCH 1 General Psychology 3
- SOC 1 Introduction to Sociology: Understanding Society 3
- SOC 2 Contemporary Social Problems 3

Associate in Arts Degree in Health Science/Community Health
- General Education 30
- Health Science/Community Health 22
- Electives 8
- Total for A.A. Degree in Health Science/Community Health 60

Health Science Courses

HS 10
Personal Health
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Explores individual health with emphasis on disease prevention and body wellness including physical and mental health, nutrition, stress, human sexuality, infectious diseases, drug use, and alternative medicine. May satisfy basic California teaching credential requirements in health education. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC with limits: HS 10 & 20 combined with WS 8: maximum credit, 3 units.

HS 12
Stress Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines stress theory and research as it relates to individual health; topics may include sources of stress, stress reduction, relationship of stress and illness, and personal applications.

Transfer Credit: Transfers to CSU.
**HS 15**

**Human Sexuality**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys human sexuality topics and issues with a socio-psychological and multi-cultural focus. Topics may include: sexual attitudes and values; sex research; structure and function of genital system; gender roles; physiology of human sexual responses; communication and relationships; contraception; and reproduction.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**HS 20**

**Contemporary Issues in Health and Medicine**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores research and applications of conventional and alternative medicine topics including integrative medicine, herbal and drug use, dietary research and nutriceuticals, preventive medicine, and psychoneuroimmunology.

*Transfer Credit:* Transfers to CSU. Transfers to UC: HS 10 & 20 combined with WS 8: maximum credit, 3 units.

**HS 21**

**Health and Physical Fitness**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Studies the implications of physical activity relative to the mental, physical and social well-being of the individual in today’s society. Upon completion of the course, students will be capable of determining their physical fitness, including aerobic capacity, body composition, flexibility, muscular strength, and endurance.

*Transfer Credit:* Transfers to CSU.

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**Information for History Majors**

History provides students with the basic information necessary for analyzing the major political, diplomatic, economic and social conditions affecting today’s society. The historical process develops analytical skills and fosters an understanding of the world through a study of the past, both remote and recent. The program at Cabrillo offers a solid core curriculum in U.S. History and Western Civilization and emphasizes a multicultural approach to history in its adjunct offerings. Courses in Chicano, Women’s, and Asian history are regularly offered. Topics of ethnic diversity and women’s experiences are regularly incorporated into all classes. In addition, Cabrillo offers a strong program in local and regional history. The chronological, geographical and topical range of offerings in the history department affords great flexibility for students working toward degrees in history and those who wish to give a historical dimension to their studies in other disciplines.

A history major usually transfers to a four-year institution to complete a Bachelor’s Degree. History is excellent preparation if one is considering careers in teaching, law, business, communications, journalism, librarianship, archival and research work, public administration and a wide variety of public service and government careers. Professional schools in these and related fields are looking for students who can weigh conflicting evidence, evaluate alternative courses of action or divergent points of view, and express conclusions logically and clearly.

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**MODEL PROGRAM FOR HISTORY**

The following model program fulfills requirements for the A.A. Degree in History at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>World History</strong> - choose one from the following:</td>
<td></td>
</tr>
<tr>
<td>HIST 2A</td>
<td>World History to 1500</td>
</tr>
<tr>
<td>HIST 2B</td>
<td>World History: 1500 to Present</td>
</tr>
<tr>
<td>HIST 6</td>
<td>History of the Middle East</td>
</tr>
<tr>
<td>HIST 16A</td>
<td>Latin America to 1825</td>
</tr>
<tr>
<td>HIST 16B</td>
<td>Latin America since 1825</td>
</tr>
<tr>
<td>HIST 16C</td>
<td>History of Mexico</td>
</tr>
<tr>
<td>HIST 19A</td>
<td>Introduction to South and Southeast Asian History</td>
</tr>
<tr>
<td>HIST 19B</td>
<td>Introduction to Chinese History</td>
</tr>
<tr>
<td>HIST 19C</td>
<td>Introduction to Japanese History</td>
</tr>
</tbody>
</table>

**Western Civilization**–choose one from the following:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4A</td>
<td>Survey of Western Civilization to 1648</td>
</tr>
<tr>
<td>HIST 4B</td>
<td>Survey of Western Civilization-1648 to Late 20th Century</td>
</tr>
</tbody>
</table>

**United States History**–choose one from the following:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 17A</td>
<td>United States History to 1865</td>
</tr>
<tr>
<td>HIST 17B</td>
<td>United States History since 1865</td>
</tr>
<tr>
<td>HIST 18A</td>
<td>Asian American History: Chinese, Japanese, and Korean Americans</td>
</tr>
<tr>
<td>HIST 18B</td>
<td>Asian American History: Filipino, Asian Indian and Southeast Asian Americans</td>
</tr>
<tr>
<td>HIST 21A</td>
<td>Chicano History to 1865</td>
</tr>
<tr>
<td>HIST 21B</td>
<td>Chicano History since 1865</td>
</tr>
<tr>
<td>HIST 29A</td>
<td>African American History to 1865</td>
</tr>
<tr>
<td>HIST 29B</td>
<td>African American History since 1865</td>
</tr>
</tbody>
</table>
Choose one to two additional courses from any of the three areas listed above. Courses that meet the multicultural requirement include:

HIST 2A, HIST 6, HIST 16A/B, HIST 18A/B, HIST 19A/B/C, HIST 21A/B, and HIST 29A/B.

Choose 9-12 elective units from the following list:

**Approved Electives**

HIST 2A  World History to 1500 ................. 3
HIST 2B  World History: 1500 to Present ........ 3
HIST 4A  Survey of Western Civilization to 1648 ........ 3
HIST 4B  Survey of Western Civilization—1648 to Late 20th Century ............ 3
HIST 6  History of the Middle East ................. 3
HIST 14  Women in America ................. 3
HIST 15  Recent American History ................. 3
HIST 16C  History of Mexico ................. 3
HIST 17A  United States History to 1865 ............ 3
HIST 17B  United States History since 1865 ............ 3
HIST 18A  Asian American History: Chinese, Japanese, and Korean Americans ............ 3
HIST 18B  Asian American History: Filipino, Asian Indian and Southeast Asian Americans ............ 3
HIST 19A  Introduction to South and Southeast Asian History ................. 3
HIST 19B  Introduction to Chinese History ................. 3
HIST 19C  Introduction to Japanese History ................. 3
HIST 20A-Z  American Studies ................. 1-3
HIST 21A  Chicano History to 1865 ................. 3
HIST 21B  Chicano History since 1865 ................. 3
HIST 24  History of California ................. 3
HIST 25A  Santa Cruz County and the Monterey Bay Region to 1890 ................. 3
HIST 25B  Santa Cruz County and the Monterey Bay Region since 1890 ................. 3
HIST 26A-Z  Topics in Local and Regional History ................. 1
HIST 29A  African American History to 1865 ................. 3
HIST 29B  African American History since 1865 ................. 3
HIST 39A-Z  Historical Studies ................. 3

**Choose 6 elective units from the following list:**

**From Related Disciplines:**

ANTHR 1  Introduction to Anthropology: Physical ........ 3
OR
ANTHR 2  Introduction to Anthropology: Cultural ........ 3
OR
ANTHR 3  Introduction to Anthropology: Archaeology ........ 4
ECON 1A  Introduction to Macroeconomics ........ 3
GEOG 2  Cultural Geography ........ 3
PS 2  Comparative Government ........ 3
PSYCH 1  General Psychology ........ 3
SOC 1  Introduction to Sociology: Understanding Society ........ 3

Prospective History majors are encouraged to consult a history instructor regarding recommended elective courses.

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**History Courses**

**HIST 2A**

**World History: to 1500**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on major regions of the world, (Asia, Africa, Europe, North and South America), and their interactions until the year 1500, emphasizing belief systems, environmental transformations, issues of family and gender, as well as political and economic organization. Critical, analytical written work is the primary means of evaluation. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN HIST14.*

**HIST 2B**

**World History: 1500 to Present**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on major regions of the world, (Asia, Africa, Europe, North and South America), and their interactions since the year 1500, emphasizing belief systems, environmental transformations, issues of family and gender, as well as political and economic organization. Critical, analytical written work is the primary means of evaluation. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN HIST16.*

**HIST 4A**

**Survey of Western Civilization to 1648**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on the social, economic, political, and cultural history of Western civilization up to 1648: ancient Greek, Roman, Medieval, Renaissance, and Reformation topics are covered with special emphasis on the issues of religion and gender. Critical, analytical written work is the primary means of evaluation.

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN HIST2.*

**HIST 4B**

**Survey of Western Civilization—1648 to Late 20th Century**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Focuses on the social, economic, political, and cultural history of Western civilization since 1648: emphasizing nationalism, rationalism, gender, industrialization, imperialism, and the World Wars. Critical, analytical written work is the primary means of evaluating student performance in this course.

*Transfer Credit: Transfers to CSU. Transfers to UC. CAN HIST4.*
HIST 6
History of the Middle East
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the history of the Middle East, with emphasis on religious, political, cultural, economic, and demographic factors. Major topics may include early societies, Mohammed and Islam, the Ottoman Empire, Imperialism, Colonialism and Nationalism, Revolutions, Western involvement in the Middle East, Israeli-Arab conflicts, OPEC, and the Rise of Fundamentalism.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 14
Women in America
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. history, examines the social, economic, and political history of women. Analyzes the role women have played in the United States and the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 15
Recent American History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys political, social, cultural, and diplomatic events in the twentieth century, from the progressive era through WWI, the 20s, the Great Depression, WWII, the Cold War, 60s, 70s, and 80s. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 16A
Latin America to 1825
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on social, political, economic, and diplomatic history of Latin America from the Pre-Columbian period through the late 15th to early 19th centuries examining conquest, resistance, and dissolution of colonial rule. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 16B
Latin America since 1825
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on social, political, economic, and diplomatic history of Latin America from the early 19th to late 20th centuries. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 16C
History of Mexico
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Focuses on the social, political, and economic history of Mexico from Pre-Columbian civilizations through the Hispanic conquest to the present. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 17A
United States History to 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys American history, tracing the development of American ideals and institutions from the precolonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN HIST8.

HIST 17B
United States History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the political, economic, social, and diplomatic developments of the United States from the Reconstruction period to the present. Emphasis is placed on the historical backgrounds of contemporary American policies and problems. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN HIST10.

HIST 18A
Asian American History:
Chinese, Japanese, and Korean Americans
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. History, examines the history of Chinese-Americans, Japanese-Americans, and Korean-Americans. Includes the immigrant experience, legal and social discrimination and resistance to discrimination, family life, economic struggles and successes, and contributions made by each of the groups. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU. Transfers to UC.
HIST 18B
Asian American History: Filipino, Asian Indian and Southeast Asian Americans
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. History, examines the history of Filipino Americans, Asian Indian Americans, and Southeast Asian Americans. Analyzes the role that Asian Americans have played and the changes that role has undergone. Includes the overall immigrant experience, legal and social discrimination and resistance to discrimination, family life, economic struggles and successes, and the contribution made by each of the groups. Critical, analytical, written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 19A
Introduction to South and Southeast Asian History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Analyzes the general features of South and Southeast Asia’s society, economy, government, religion, philosophy, and the arts. Also includes the impact of the West, the search for a new culture, and the background of contemporary social and political problems. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 19B
Introduction to Chinese History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the general outlines of Chinese history, along with more focused attention on themes such as expansion of the Chinese empire, philosophical and cultural developments, economic change, family, gender and daily life, and political movements.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 19C
Introduction to Japanese History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Emphasizes the general features of Japan’s society, economy, government, religion, philosophy and art. Critical, analytical written work is the primary means of evaluating student performance in this course.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 20A-Z
American Studies
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. With different topics and letters.
Traces the development and analyzes a particular facet of American history, e.g., United States foreign policy, American popular culture, the Civil War, etc. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions:
Students must retain a copy of the course outlines, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

HIST 21A
Chicano History to 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. history, traces the cultural, economic, literary, and political history of the Mexican in the first half of U.S. History. Covers the scope of U.S. History to 1865, analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 21B
Chicano History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
In the context of general U.S. History, traces the development of the Chicano in the United States from 1865 to the present. Covers the scope of U.S. History; analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Gives emphasis to the role and life of the Mexican American residing in California. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. history requirement.
Transfer Credit: Transfers to CSU. Transfers to UC.

HIST 23
History of Contemporary Chicano Movements
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
Covers the origins of the growing politicization among Mexican-Americans, with emphasis on the roles of particular groups such as the Brown Berets, the United Mexican-American Students, the Mexican-American Student Confederation, the Crusade for Justice, the Alianza, and the National Farm Workers Union.
Transfer Credit: Transfers to CSU. Transfers to UC.
HIST 24  
**History of California**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Analyzes the history of California and its diverse peoples, with attention to regional, national, and global contexts. Addresses social, political, and economic issues unique to the history of California in the context of broader U.S. history. Critical, analytical written work of at least 4000 words is the primary means of evaluation.  
*Transfer Credit:* Transfers to CSU. Transfers to UC.

HIST 25A  
**Santa Cruz County and the Monterey Bay Region to 1890**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies social, political, and economic history of the Santa Cruz County area beginning with native Californians and ending in 1890, with an emphasis on the contribution of ethnic minorities, women, and labor.  
*Transfer Credit:* Transfers to CSU.

HIST 25B  
**Santa Cruz County and the Monterey Bay Region since 1890**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Explores the history of Santa Cruz County from the 1890s to the present, including economic, political, and social development of the entire Monterey Bay region with an emphasis on the contributions of ethnic minorities, women, and labor.  
*Transfer Credit:* Transfers to CSU.

HIST 26A-Z  
**Topics in Local and Regional History**  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Analyzes various topics in the social, political, and economic history of the Monterey Bay Region.  
*Transfer Credit:* Transfers to CSU.

HIST 29A  
**African American History to 1865**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
In the context of general U.S. history, surveys the history of African Americans from the early colonial period up to 1865, including emphasis on background issues which have influenced contemporary and modern problems and contributions. Analyzes the role that African Americans have played in the United States and on the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.  
*Transfer Credit:* Transfers to CSU. Transfers to UC.

HIST 29B  
**African American History since 1865**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
In the context of general U.S. history, surveys the history of African Americans from 1865 to the present, including emphasis on contemporary and modern problems and contributions. Analyzes the role that African Americans have played in the United States and on the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.  
*Transfer Credit:* Transfers to CSU. Transfers to UC.

HIST 39A-Z  
**Historical Studies**  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Provides intensive study of some aspect of world history for advanced history students. Course content will vary with each offering, as will prerequisites. Critical, analytical written work is the primary means of evaluation.  
*Transfer Credit:* Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

Horticulture  
Natural and Applied Sciences Division  
Wanda Garner, Division Dean  
Division Office, Room 701  
Peter Shaw, Program Chair, (831) 479-6241  
Counselor: (831) 479-6385 or (831) 479-6225 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6328 for more information  
http://www.cabrillo.edu/programs

Horticulture Occupational Program  
The horticulture program prepares students for entry level to management jobs and self-employment in diverse horticulture businesses. It also provides a foundation for people transferring to four-year programs in Ornamental Horticulture and Landscape Architecture. It affords local horticulturists and working professionals the means to upgrade their skills and knowledge. Opportunities to obtain valuable experience are provided in the greenhouse/garden facility and by working to enhance campus landscapes.

DEGREES AND CERTIFICATES  
The college offers two A.S. Degrees, two Certificates of Proficiency and nine Skills Certificates in Horticulture. Students may obtain an A.S. Degree in General and Crop Production or Landscape Horticulture. Students may earn only one A.S. Degree. Separate certificates may be obtained in both areas of concentration.
### Certificate of Proficiency: Landscape Horticulture

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 1A</td>
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<td>HORT 100A</td>
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<td>HORT 125</td>
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<td>HORT 150</td>
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<tr>
<td>HORT 199C</td>
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</tbody>
</table>

Total for Certificate of Proficiency in Landscape Horticulture: **42**

### Certificate of Proficiency: Greenhouse and Nursery Management

<table>
<thead>
<tr>
<th>Core Courses</th>
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<tbody>
<tr>
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<td>HORT 150</td>
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<td>HORT 199C</td>
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</table>

Total for Certificate of Proficiency in Greenhouse and Nursery Management: **39**

### Skills Certificates in Horticulture

#### Skills Certificate: Arboriculture

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<thead>
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<th>Core Courses</th>
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<td>HORT 62</td>
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<tr>
<td>HORT 150</td>
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<tr>
<td>HORT 172</td>
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</tbody>
</table>

Total for Skills Certificate in Arboriculture: **14½**

#### Skills Certificate: General Horticulture

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 1A</td>
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<td>HORT 2</td>
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<tr>
<td>HORT 52</td>
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<td>HORT 100A</td>
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<tr>
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Total for Skills Certificate in General Horticulture: **16**

#### Skills Certificate: Greenhouse and Nursery Management

<table>
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<th>Core Courses</th>
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<td>HORT 1A</td>
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<td>HORT 100A</td>
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<tr>
<td>HORT 150</td>
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**+HORT 162PR Landscape Pruning** (½)

Total for Skills Certificate in Greenhouse and Nursery Management: **17**

**+Spring offering only; **Fall offering only

#### Skills Certificate: Home Horticulture

<table>
<thead>
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<th>Core Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 1A</td>
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<td>HORT 60A</td>
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<td>HORT 150</td>
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<tr>
<td>HORT 160B</td>
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</table>

Total for Skills Certificate in Home Horticulture: **15**

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### Associate in Science Degree: General Horticulture and Crop Production

#### Core Courses

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
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<td>HORT 150</td>
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<tr>
<td>HORT 199C</td>
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</tbody>
</table>

Approved Electives: Any Horticulture course (3)

Total for A.S. Degree in General Horticulture and Crop Production: **60**

### Associate in Science Degree: Landscape Horticulture

#### Core Courses

<table>
<thead>
<tr>
<th>Core Courses</th>
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<td>HORT 1A</td>
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<td>HORT 150</td>
<td>4</td>
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<tr>
<td>HORT 199C</td>
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</table>

Approved Electives: Any Horticulture course (3)

Total for A.S. Degree in Landscape Horticulture: **60**

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### Associate in Science Degree: Skills Certificates

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Core Courses</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>Certificate of Proficiency: Landscape Horticulture</td>
<td>HORT 1A, HORT 2, HORT 52, HORT 100A, HORT 150, HORT 199C</td>
<td>42</td>
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<tr>
<td>Certificate of Proficiency: Greenhouse and Nursery Management</td>
<td>HORT 1A, HORT 2, HORT 52, HORT 100A, HORT 150</td>
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<tr>
<td>Skills Certificate: Arboriculture</td>
<td>HORT 62, HORT 63, HORT 150, HORT 172</td>
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<tr>
<td>Skills Certificate: General Horticulture</td>
<td>HORT 1A, HORT 2, HORT 52, HORT 100A, HORT 150</td>
<td>16</td>
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<tr>
<td>Skills Certificate: Greenhouse and Nursery Management</td>
<td>HORT 1A, HORT 1B, HORT 52, HORT 100A, HORT 150</td>
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<tr>
<td>Skills Certificate: Home Horticulture</td>
<td>HORT 1A, HORT 60A, HORT 100A, HORT 150, HORT 160B</td>
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### General Education

- **Core Courses (39 units)**: HORT 1A, HORT 2, HORT 52, HORT 54, HORT 58, HORT 62, HORT 63, HORT 100A, HORT 125, HORT 150, HORT 199C
- **Approved Electives (3 units)**: Any Horticulture course
- **Total for A.S. Degree in General Horticulture and Crop Production**: 60 units

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### Landscape Horticulture Core Courses

- **Units**: 60
- **Core Courses**:
  - HORT 1A Basic Horticulture (4)
  - HORT 2 Soil Science and Management (4)
  - HORT 52 Greenhouse Design and Operation (3)
  - HORT 54 Business Aspects of Horticulture (3)
  - HORT 58 Irrigation System Design and Installation (4)
  - HORT 62 Fall Plant Materials and Design (3)
  - HORT 63 Spring Plant Materials and Design (3)
  - HORT 100A Plant Propagation (1)
  - HORT 125 Introduction to Hydroponic Food Production (1)
  - HORT 150 Pest Management (4)
  - HORT 199C Career Work Experience Education (2)

**Total for A.S. Degree in Landscape Horticulture**: 60 units
Skills Certificate: Landscape Construction
HORT 2          Soil Science and Management          ...4
HORT 57         Landscape Construction          ...3
HORT 58         Irrigation System Design and Installation     ...4
HORT 62         Fall Plant Materials and Design          ...3
HORT 63         Spring Plant Materials and Design          ...3
HORT 65         Landscape Design Graphics          ...2
HORT 162PO     Pond Design and Construction          ...1
Total for Skills Certificate in Landscape Construction 17

Skills Certificate: Landscape Design
HORT 57         Landscape Construction          ...3
HORT 62         Fall Plant Materials and Design          ...3
HORT 63         Spring Plant Materials and Design          ...3
HORT 65         Landscape Design Graphics          ...2
HORT 66         Landscape Design: Theory and Process     ...3
HORT 162LC     LandCADD for Landscape Design          ...1
HORT 175         Sustainable Landscaping          ...2
Total for Skills Certificate in Landscape Design 17

Skills Certificate: Landscape Gardener
HORT 58         Irrigation System Design and Installation     ...4
HORT 60A        Landscape Gardening          ...3
HORT 62         Fall Plant Materials and Design          ...3
HORT 63         Spring Plant Materials and Design          ...3
HORT 150         Pest Management          ...4
HORT 156A       Landscape Equipment Operation          ...1
HORT 162PR     Landscape Pruning          ...½
Total for Skills Certificate in Landscape Gardener 15½

Skills Certificate: Restoration Landscaping
HORT 2          Soil Science and Management          ...4
HORT 62         Fall Plant Materials and Design          ...3
HORT 63         Spring Plant Materials and Design          ...3
HORT 161         Soil Conservation          ...3
HORT 164         California Native Plants and Plant Communities     ...2
HORT 170         Restoration Landscaping          ...3
Total for Skills Certificate in Restoration Landscaping 15

Skills Certificate: Alternative Crop Production Methods
HORT 1A         Basic Horticulture          ...4
HORT 2          Soil Science and Management          ...4
HORT 120         Organic Agriculture          ...3
HORT 125       Introduction to Hydroponic Food Production...1
HORT 150         Pest Management          ...4
Total for Skills Certificate in Alternative Crop Production Methods 16

Horticulture Courses

HORT 1A
Basic Horticulture
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Surveys the horticulture industry emphasizing plant forms, growth and development, and identifying sustainable techniques for landscaping, ornamental plant and food production systems.
Transfer Credit: Transfers to CSU.

HORT 1B
Basic Horticulture: Crop Production
4 units; 3 hours Lecture, 5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Surveys the production of ornamental and landscape plants to gain a working knowledge of how light, temperature, water, fertilizers, and soil-less media interact in a controlled environment. Also covers pest management and propagation of selected ornamentals.
Transfer Credit: Transfers to CSU.

HORT 2
Soil Science and Management
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Examines physical, chemical and biological composition of soils, local soil formations, methods of soil sampling and testing, fertilizer and liming techniques, production and use of organic and chemical fertilizers, green manures and relationship between soils and human culture. Also includes the use and testing of soils for production plus septic and gray water systems.
Transfer Credit: Transfers to CSU. CAN AG 14.

HORT 52
Greenhouse Design and Operation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Presents the design and management of commercial and residential greenhouses including site analysis, greenhouse styles, glazing, circulation, cooling, venting, heating systems, and control systems. This class also covers general growing conditions of plants in a controlled environment. The business of nurseries and greenhouses is also covered briefly.
Transfer Credit: Transfers to CSU.

HORT 54
Business Aspects of Horticulture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Introduces topics relevant to starting and managing a horticultural business, including developing a business plan, sales and marketing, record keeping and responsibilities of employers.
Transfer Credit: Transfers to CSU.
HORT 57
Landscape Construction
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Presents an overview of the landscape contracting industry and provides hands-on experience with landscape construction techniques including site layout and preparation, planting, interlocking pavers, retaining walls, wood construction and water features as well as bidding and estimating projects.
Transfer Credit: Transfers to CSU.

HORT 58
Irrigation System Design and Installation
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces the fundamentals of residential and commercial irrigation system design and installation using PVC, poly pipe and drip systems, programming irrigation clocks, mainline connection, valve installation and diagnosing system problems.
Transfer Credit: Transfers to CSU.

HORT 60A
Landscape Gardening
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces principles and applications of residential landscape design, installation and maintenance including pruning, construction, plant selection, use of new and recycled materials, and water conserving concepts.
Transfer Credit: Transfers to CSU.

HORT 62
Fall Plant Materials and Design
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Covers the identification of 100 of the plants used in local landscapes including native and introduced trees, shrubs, groundcovers, and vines. Also covers the uses of plants in the landscape, California natives firescaping, history of gardens, selecting groundcovers, plant selection software and planting design.
Transfer Credit: Transfers to CSU.

HORT 63
Spring Plant Materials and Design
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Covers the identification of approximately 100 of the plants used in local landscapes including ornamental grasses, perennials, trees and shrubs. Also covers selecting proper plants for landscape needs including flowering trees and plants for hedges, screens and espaliers. Field trips to local landscapes included.
Transfer Credit: Transfers to CSU.

HORT 65
Landscape Design Graphics
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces landscape design graphics using various media including pencil, ink, and colored pencils to create base plans, plan views, elevation and perspective drawings. Also introduces the principles of landscape design.
Transfer Credit: Transfers to CSU.

HORT 66
Landscape Design: Theory and Process
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Presents principles of landscape design theory and process including graphics, problem solving, and presentation skills through residential site analysis, program development, case studies, client interaction and site measurement.
Transfer Credit: Transfers to CSU.

HORT 100A
Plant Propagation
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Repeatability: May be taken 3 times.

Introduces techniques in plant propagation including seed collection, handling and sowing as well as producing plants from cuttings, layering, leaf pieces, division, and grafting. Topics include equipment and facilities commonly used in nursery and greenhouse production, appropriate chemicals and hormones, growing mediums and fertilizers appropriate for propagation, sanitation procedures, propagation scheduling, lining out and potting up.

HORT 120
Organic Agriculture
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces organic agriculture with an emphasis on organic food production and a practical understanding of the philosophy, principles and practices of organic crops.

HORT 125
Introduction to Hydroponic Food Production
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces concepts and practices of growing food crops hydroponically, including set up, nutrient solution preparation, lighting needs and pest control.
HORT 150

Pest Management
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces the concepts and practices of integrated pest management emphasizing identification of insects, vertebrates, diseases and weeds in managed landscapes, crops, nurseries and greenhouses on the Central Coast. Covers pesticide use and safety and the techniques of integrated pest management including: biological control, resistant varieties, cultural controls and mixed cropping.

HORT 156A

Landscape Equipment Operation
1 unit; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces the proper use and selection of the equipment used in the landscape maintenance business including mowers, string trimmers, blowers, and aerators. Safety, basic repairs and maintenance will also be covered.

HORT 160B

Edible Landscaping
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Emphasizes the basic principles of home food production; including fruit, nut, herb and vegetable crops best suited to Santa Cruz County, soil preparation and propagation mixes, fertilizer use, care and use of garden tools and pest control techniques.

HORT 161

Soil Conservation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Presents soil erosion control and soil quality problems within urban and native land soils affected by human activities by assessing soil conditions, using soil surveys and preparing an erosion control plan. Evaluation of watershed restoration techniques is also covered.

HORT 162A-ZZ

Current Topics in Horticulture
½ - 4 units; ½ hour Lecture or 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Any particular current topics course may be repeated a total of 4 times.

Selected topics in horticulture not covered by regular catalog offerings. Each special topic course will be announced, described and given its own title and letter designation in the Schedule of Classes. The structure and format of each class will vary depending on the subject matter and may consist of lecture, lab, or both.

HORT 164

California Native Plants & Plant Communities
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Covers the identification of native plants and their best uses in the developed landscape, and includes discussion of the diverse native plant communities of California.

HORT 165

The Therapeutic Garden
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces the use of plants, landscapes, and plant-related activities in improving the health and well being of people by focusing on the therapeutic and rehabilitative treatment of people with special needs. Also covers the design of accessible landscapes, the vocational potentials of horticultural therapy working in service programs within hospitals, nursing homes, correctional facilities, alcohol rehabilitation centers, and vocational training centers.

HORT 170

Restoration Landscaping
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Explores the theory and practice of restoring native landscapes with the goal of promoting biodiversity, mimicking natural habitats, solving erosion problems and assessing compromised soil situations. Techniques such as grazing and burning to control invasive exotic plants, will be covered as well as the preservation of fragile plant communities, and propagation and seed collection methods. Field trips to local restoration sites included.

HORT 172

Arboriculture
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Introduces the care and management of trees in the landscape providing preparation for the International Society of Arboriculture (ISA) certification exam and covers the selection, training, protecting, fertilizing and the basics of pruning. Soil, water and nutrient management and plant biology will be discussed as well as the operation of a tree maintenance business. Trees common to the ISA exam will also be covered.

HORT 175

Sustainable Landscaping
2 units; 2 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.

Introduces sustainable landscaping theories and practices including designing and maintaining ecologically sound landscapes as well as renovating existing gardens with living walls, green roofs, permeable hardscapes and rainfall catchment systems.
Human Services Occupational Program

Designed for students and paraprofessionals, this program provides an overview of the field of Human Services and explores issues and dynamics within the social services delivery system. A second specialization in Drug and Alcohol Studies prepares students for work in the Drug and Alcohol treatment field.

Students will participate in both an academic course of study and a work-based learning experience focusing on the history, theory, development, and implementation of our society’s responses to human needs. Program participants will develop knowledge of the issues related to Human Services and build competencies in practice interventions, strategies, technologies and resources for the delivery of Human Services.

The program explores strengths-based models along with studying diversity in the Human Services including social, political, and cultural influences. Students can expect to increase competency in technological skills, build effective communication skills in helping relationships and develop creativity, critical thinking, teamwork, and ethics. Course work prepares students for higher education in Social Work, Psychology, Health/Human Services, Human Resources, and Community Studies.

Career opportunities might include employment in such paraprofessional positions as Social Work Assistants, Community Advocates for Children, Adults, or Families at risk, Case Managers, Counselors, Alcohol or Drug Abuse Counselors. Eligibility and Outreach Workers, Community Health Outreach Workers, Job Training Specialists, Legal Aid Paraprofessionals, Residential Counselors, Mental Health Technicians, Gerontology Aides, Probation Officers, and many more.

**Human Services Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSERV 50</td>
<td>Introduction to the Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 51</td>
<td>Practices in the Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 52</td>
<td>Introduction to Counseling and Case Management</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
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<tr>
<td>PSYCH 39ABC</td>
<td>Relationships: Marriage and the Family</td>
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Total Human Services Core Courses: 15

**Human Services Generalist Practice Core Courses**

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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
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</tr>
<tr>
<td>HSERV 99SL</td>
<td>Service Learning in the Human Services</td>
<td>2</td>
</tr>
<tr>
<td>PSYCH 37ABC</td>
<td>Values and Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
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Total Human Services Generalist Practice Core Courses: 11

**Drug and Alcohol Studies Core Courses**

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<th>Course Title</th>
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<tr>
<td>HSERV 53</td>
<td>Techniques of Group Counseling</td>
<td>2</td>
</tr>
<tr>
<td>HSERV 99SL</td>
<td>Service Learning in the Human Services</td>
<td>2-3</td>
</tr>
<tr>
<td>HSERV 160</td>
<td>Introduction to Chemical Dependency Issues</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 161</td>
<td>Alcoholism and Drug Addiction: Intervention, Treatment, and Recovery</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 162</td>
<td>Physiology and Pharmacology: Alcohol and Other Drugs</td>
<td>3</td>
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<tr>
<td>HSERV 163</td>
<td>Alcohol and Other Drugs: Education and Prevention Strategies</td>
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<tr>
<td>HSERV 164</td>
<td>Ethics: Personal and Professional Growth in the Human Services</td>
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Total Drug and Alcohol Studies Core Courses: 16-19

**Approved Electives**

Any Human Services (HSERV) class

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<td>CABT 131</td>
<td>Microsoft Word</td>
<td>3</td>
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<tr>
<td>CG 1</td>
<td>College Success</td>
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<tr>
<td>CG 60A</td>
<td>Introduction to Peer Counseling</td>
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<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
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<tr>
<td>ECE 31</td>
<td>Child Growth and Development</td>
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<tr>
<td>ECE 32</td>
<td>Child, Youth, Family, and Community</td>
<td>3</td>
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<tr>
<td>MA 184</td>
<td>Health Care Communication and Etiquette</td>
<td>2</td>
</tr>
<tr>
<td>PE 12A</td>
<td>First Aid: Responding to Emergencies</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 8</td>
<td>Introduction to Developmental Psychology</td>
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<tr>
<td>PSYCH 31</td>
<td>Introduction to Abnormal Psychology</td>
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<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
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<tr>
<td>PSYCH 35ABC</td>
<td>Death and Dying</td>
<td>3</td>
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<tr>
<td>PSYCH 37ABC</td>
<td>Values and Decision Making</td>
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<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1</td>
<td>Beginning Spanish (or appropriate level)</td>
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<tr>
<td>WS 7</td>
<td>Psychology of Women</td>
<td>3</td>
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<tr>
<td>WS 10</td>
<td>Introduction to Women’s Studies</td>
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</table>

**Associate in Science Degree in Human Services**

General Education: 15-21

Core Courses: 26

Approved Electives: 11

Electives: 2-8

Total for A.S. Degree in Human Services: 60

**Certificate of Proficiency in Human Services Generalist Practice**

Core Courses: 15

Human Services Generalist Practices Courses: 11

ENGL 100/1A/1AMC or CABT 157: 3

Total Certificate of Proficiency in Human Services Generalist Practice: 29

**Human Services Skills Certificate in Generalist Practice**

HSERV 50: Introduction to Human Services: 3

HSERV 51: Practices in Human Services: 3

HSERV 52: Introduction to Counseling and Case Management: 3

HSERV 99SL: Service Learning in the Human Services: 2

Total for Skills Certificate in Generalist Practice: 11
### Human Services Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Corequisite</th>
<th>Recommended Preparation</th>
<th>Course Description</th>
<th>Transfer Credit</th>
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<tbody>
<tr>
<td>HSERV 50</td>
<td>Introduction to Human Services</td>
<td>3</td>
<td>3</td>
<td>HSERV 99SL</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>Provides an overview of the field of Human Services exploring issues and dynamics within the Social Services delivery system. Focuses on an introduction to professional skills and an analysis of historical and contemporary social service systems.</td>
<td>Transfers to CSU</td>
</tr>
<tr>
<td>HSERV 51</td>
<td>Practices in Human Services</td>
<td>3</td>
<td>3</td>
<td>HSERV 99SL</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>Focuses on appropriate interventions, technologies, and strategies for the delivery of Human Services. Practical knowledge in case management, referral, home visitation, alcohol and drug abuse, HIV, STD, abuse, neglect, gerontology, disability, and other issues.</td>
<td>Transfers to CSU</td>
</tr>
<tr>
<td>HSERV 52</td>
<td>Introduction to Counseling and Case Management</td>
<td>3</td>
<td>3</td>
<td></td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>Provides an introduction to the basic theories and techniques of interviewing, counseling, and case management in the Human Services. Explores the counseling process, compares theoretical approaches, and discusses ethical issues in service provision.</td>
<td>Transfers to CSU</td>
</tr>
<tr>
<td>HSERV 53</td>
<td>Techniques of Group Counseling in the Human Services</td>
<td>2</td>
<td>2</td>
<td></td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>Provides an orientation to group dynamics, group leadership, and group intervention strategies in a variety of Human Service settings. Examines various kinds of groups and basic facilitation skills for group leaders. Introduces group work interventions with specific populations including substance abusers, at-risk youth, and older adults.</td>
<td>Transfers to CSU</td>
</tr>
<tr>
<td>HSERV 59A-Z</td>
<td>Special Topics in the Human Services</td>
<td>½ - 3</td>
<td>½ - 3</td>
<td></td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>A series of intensive courses studying specific concepts, issues, and concerns within the Human Services Field. Course content and prerequisites will vary with each offering. During any school session, one or more such courses may be offered, each one having its own title and being designated by its own permanent letter. May be offered in a Distance-Learning Format.</td>
<td>Transfers to CSU</td>
</tr>
<tr>
<td>HSERV 70</td>
<td>Introduction to Human Aging</td>
<td>3</td>
<td>3</td>
<td></td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>Provides an interdisciplinary, biological and psycho-social introduction and overview of aging including demographic, physical, psychological, emotional, social, cultural and economic theories, trends and experiences. Discusses policy issues affecting older adults. Identifies aging processes and explores common myths about aging. Introduces communication skills for successful intergenerational relationships.</td>
<td>Transfers to CSU</td>
</tr>
<tr>
<td>HSERV 71</td>
<td>Aging and Human Services</td>
<td>3</td>
<td>3</td>
<td></td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>Provides an overview of the concepts, characteristics, skills, careers, and clinical issues of human service provision in a variety of settings serving older persons with emphasis on application. Introduces students to the needs of elders, and the careers and service delivery systems for older people. Focuses on interpersonal and therapeutic communication skills in a variety of settings with elders including those experiencing sensory and/or cognitive losses. Identifies professional behaviors and expectations in service organizations.</td>
<td>Transfers to CSU</td>
</tr>
</tbody>
</table>
HSERV 160  
Introduction to Chemical Dependency Issues  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides an introductory level understanding of mood altering substances, their patterns of use and the dynamics of addiction and treatment. Discusses historical perspectives on alcohol and drug abuse and its impact on families and the community; the biopsychosocial factors that contribute to the use of drugs and alcohol; patterns and progression of chemical addiction, treatment and prevention programs; and legislation regarding use, abuse, and addiction to drugs and alcohol and the chemical dependency treatment field.

HSERV 161  
Alcoholism and Drug Addiction:  
Intervention, Treatment and Recovery  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies techniques used in the treatment of chemical dependency and an evaluation of interventions, individual and group counseling, detoxification, twelve step programs, therapeutic communities, aftercare programs, and relapse prevention.

HSERV 162  
Physiology and Pharmacology:  
Alcohol and Other Drugs  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies the action and effects of alcohol and other psychoactive drugs, including opiates, stimulants, depressants, psychotherapeutics, and psychedelics on the body's organs and systems, behavior, cognition, and emotion. Discusses the physiological, social, and psychological implications of tolerance, habituation, and substance abuse of the user and abuser and reviews models and biomedical principles of the disease process and treatment of alcohol and drug abuse, addiction, the relapse dynamic, and the recovery process. Identifies and discusses medical terminology used in the field and develops an awareness of the medical complications associated with chronic drug use.

HSERV 163  
Alcohol and Other Drugs:  
Education and Prevention Strategies  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Provides insight and practice in the development of the educational component of alcohol and other drug treatment programs. Persons working in treatment or educational fields may find this course beneficial to already established programs. Considers topics, materials, and presentation issues as they relate to working with persons in recovery and their families.

HSERV 164  
Ethics: Personal and Professional Growth in the Human Services  
2 - 4 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Explores the basic ethical, personal, and professional issues involved in the treatment of drug and alcohol abuse, mental health, issues related to aging, and issues related to the delivery of human services in general. Addresses professional ethics, current legal sanctions, specific questions regarding employment problems, patients' rights, professional liability, and state and federal counseling regulations, confidentiality, counselor and clients' rights, child and adult abuse issues, countertransference, stress management, and professional development.

HUMANITIES  
Business, English, and Language Arts Division  
James Weckler, Division Dean  
Division Office, Room 501  
Counselor: (831) 479-6385 or (831) 479-6225 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6400 for more information  
www.cabrillo.edu/programs

Humanities Courses

HUMAN 3  
The Nuclear Age  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and MATH 154.  
A handful of nations now possess more than 50,000 nuclear weapons threatening our civilization with the most acute challenge it has ever faced. A series of lecturers from different disciplines and backgrounds will address this complex and disturbing issue. We will look at historical and technical developments which have shaped the nuclear age and at some of the social, political, economic, psychological and cultural consequences of these developments, as well as the prospects for peace.  
Transfer Credit: Transfers to CSU. Transfers to UC.

HUMAN 5  
Cultures and Counter-cultures:  
America in the 1960s  
3 units; 3 hours Lecture  
Prerequisite: ENGL 1A/1AMC.  
This course is an interdisciplinary, multi-cultural survey of the most explosive decade of the 20th century. Through poetry, music, biography, novels, videos, lectures by several instructors in their subject areas, and class discussions, students will examine the politics, arts, music and spirit of the decade in order to see themselves more clearly and form a better understanding of the present.  
Transfer Credit: Transfers to CSU.
HUMAN 10
Humanities Colloquium
1 - 3 units; 1 hour Lecture
Concurrent enrollment in specified humanities course when appropriate.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 2 times. Repeatable with different content.
An interdisciplinary seminar on topics in the humanities. Course will vary depending on original texts selected for discussion.
Transfer Credit: Transfers to CSU.

ITALIAN
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Italian Courses

ITAL 1
Beginning Italian
4 units; 4 hours Lecture
Corequisite: ITAL 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops speaking, listening comprehension, reading, and writing skills, with Italian as the primary language of instruction. Students communicate through class activities and begin study of Italian culture. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ITAL 2.

ITAL 2
Elementary Italian
4 units; 4 hours Lecture
Prerequisite: ITAL 1, or two years of high school Italian with a grade of "C" or better, or the equivalent.
Corequisite: ITAL 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with Italian as the primary language of instruction. Students communicate through class activities and continue study of Italian culture. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN ITAL 4.

ITAL 3
Intermediate Italian
4 units; 4 hours Lecture
Prerequisite: ITAL 2 or equivalent.
Corequisite: ITAL 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Further develops skills acquired in first-year Italian and reviews and expands grammar and vocabulary. Students study Italian culture through reading and discussion of literary and cultural texts and develop writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

ITAL 10
Conversation
3 units; 3 hours Lecture
Prerequisite: ITAL 2 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students discuss culturally relevant topics and situations drawn from written and audio-visual sources.
Transfer Credit: Transfers to CSU. Transfers to UC.

ITAL 50L
Italian Language Laboratory
1 - 4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of ITAL 1-2. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

INTERNATIONAL STUDIES
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6404
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs
Information for International Studies

Majors

The program listed below is a pattern of courses leading to an Associate in Arts Degree only and does not meet the transfer requirement for the International Studies major. Students planning to transfer should consult the catalog of the university to which they intend to transfer.

Modern technology has permanently changed the character of life on this planet. With the speed of modern communication, events that occur half a world away—military, economic, political—impact us almost immediately. Given this global perspective, a major which examines the increasing interdependence of nations from several points of view—political, economic, historical and geographical—will better prepare today's student to live in and contribute to the modern world.

This major is coming to be increasingly in demand. UC Davis, UC Santa Barbara, and UC Los Angeles have programs in international relations. Davis has a major in international relations, while UCSB and UCLA offer an emphasis within the political science major.

In the CSU system, CSU Chico and CSU San Francisco offer B.A. Degrees in international relations, and Fresno and Pomona offer M.A. Degrees. Business majors at many campuses offer an international emphasis within the major. In addition, there are a number of private schools, such as Monterey Institute and University of the Pacific, which have programs in this area, in some cases including post-bachelor's degrees.

MODEL PROGRAM FOR INTERNATIONAL STUDIES

The following model program fulfills requirements for the A.A. Degree in International Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

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<th>Course</th>
<th>Units</th>
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<tbody>
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<td>ECON 1B</td>
<td>3</td>
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<td>GEOG 2</td>
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<td>HIST 4A</td>
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<td>PS 2</td>
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Choose 1 of the following series

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<tr>
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<td>Elementary French</td>
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</tr>
<tr>
<td>FR</td>
<td>Intermediate French</td>
<td>4</td>
</tr>
<tr>
<td>FR</td>
<td>Intermediate French</td>
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<td>OR</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>GRMN</td>
<td>Beginning German</td>
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<td>GRMN</td>
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<tr>
<td>ITAL</td>
<td>Beginning Italian</td>
<td>4</td>
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<tr>
<td>ITAL</td>
<td>Elementary Italian</td>
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OR

<table>
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Recommended

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<td>MATH 12</td>
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Associate of Arts Degree in International Studies

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<td>General Education</td>
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<td>Core Course</td>
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<td>Required Language</td>
<td>12-16</td>
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</table>

Total for A.A. Degree in International Studies 60

JAPANESE

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Japanese Courses

JAPAN 1
Beginning Japanese
4 units; 4 hours Lecture
Corequisite: JAPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops speaking, listening comprehension, reading, and writing skills, with Japanese as the primary language of instruction. Students communicate through class activities and begin study of Japanese culture. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN JAPN2.

JAPAN 2
Elementary Japanese
4 units; 4 hours Lecture
Prerequisite: JAPAN 1, or two years of high school Japanese with a grade of "C" or better, or the equivalent.
Corequisite: JAPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with Japanese as the primary language of instruction. Students communicate through class activities and continue study of Japanese culture. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN JAPN4.
### JAPAN 50L
**Japanese Language Laboratory**
1 - 4 units; 2 hours Laboratory
Repeatable: May be taken 4 times.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of JAPAN 1-2. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU.

### JOURNALISM
**Business, English, and Language Arts Division**
James Weckler, Division Dean
Division Office, Room 501
David Sheftman, Program Chair, (831) 477-3206
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
www.cabrillo.edu/programs

### Information for Journalism Majors
The Journalism transfer is designed to provide the lower division coursework needed for transfer to a 4-year university in Journalism or Mass Media. The major is available at most CSU campuses and some campuses of the University of California.

**MODEL PROGRAM FOR JOURNALISM**
The following model program fulfills requirements for the AA in Journalism at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

#### Core Courses
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOURN 20A</td>
<td>3</td>
</tr>
<tr>
<td>JOURN 21</td>
<td>3</td>
</tr>
<tr>
<td>JOURN 23A</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1B</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td>3</td>
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<tr>
<td>ENGL 18BMC</td>
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#### Approved Electives
<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ART 27</td>
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<tr>
<td>ART 28</td>
<td>3</td>
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<tr>
<td>AP 9A</td>
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<tr>
<td>JOURN 20A</td>
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<tr>
<td>JOURN 35</td>
<td>3</td>
</tr>
<tr>
<td>DM 1</td>
<td>3</td>
</tr>
<tr>
<td>COMM 10</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 12A</td>
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</tr>
<tr>
<td>MATH 12</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td>3</td>
</tr>
<tr>
<td>BUS 9</td>
<td>3</td>
</tr>
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</table>

### Associate in Arts Degree in Journalism
- **General Education**
- **Journalism Core**
- **Approved Electives**
- **Electives**
- **Total for the A.A. Degree in Journalism**

### Journalism Occupational Program
Cabrillo College’s Journalism program is designed to give students hands-on experience in print journalism. It prepares students for jobs in journalism that don’t require a bachelor’s degree. Possible career opportunities include working as a stringer for a newspaper, producing newsletters for companies and organizations, free-lancing as a writer, or working as a photojournalist or in newspaper layout. Cabrillo’s program offers a one-year Certificate of Proficiency and a two-year Associate in Science Degree, as well as a two-year Associate in Arts Degree and/or transfer credit to four-year institutions for higher degrees.

#### Core Courses
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>JOURN 20A</td>
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<tr>
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<td>JOURN 23A</td>
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</tr>
<tr>
<td>JOURN 50</td>
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</tr>
<tr>
<td>JOURN 53</td>
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#### Approved Electives
<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>AP 9A</td>
<td>3</td>
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<tr>
<td>ART 27</td>
<td>3</td>
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<td>ART 28</td>
<td>3</td>
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<tr>
<td>JOURN 2</td>
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</tr>
<tr>
<td>JOURN 20B</td>
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<td>JOURN 35</td>
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<tr>
<td>JOURN 199C</td>
<td>1-4</td>
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<tr>
<td>DM 1</td>
<td>4</td>
</tr>
<tr>
<td>DM 2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Associate in Science Degree in Journalism
- **General Education**
- **Journalism Core Courses**
- **Approved Journalism Electives**
- **Electives (any course numbered 1-199)**
- **Total for A.S. Degree in Journalism**

### Certificate of Proficiency in Journalism
- **Journalism Core Courses**
- **Approved Electives**
- **ENGL 100 or 1A or 1AMC or CABT 157**
- **Total for Certificate of Proficiency**
Journalism Courses

JOURNAL 2
Special Projects in Journalism
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 2 times.

This course concentrates on some dimension or aspect of journalism not covered in regular journalism courses.
Transfer Credit: Transfers to CSU.

JOURNAL 20A
Introduction to Photojournalism
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: AP 9A or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Introduces photojournalism, emphasizing the art of telling stories with photographs. Examines the photographic techniques, journalistic practices, and artistic concerns of the photojournalist, as well as the history and future of photojournalism. Students in this class also provide the photographs for the college newspaper, The Voice. Requires access to a camera with adjustable speeds and “f” stops.
Transfer Credit: Transfers to CSU.

JOURNAL 20B
Press Photo Bureau
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: JOURNAL 20A, AP 9A, or AP 9B.
Repeatability: May be taken 2 times.

An exploration of the role of the working photojournalist, examining the underlying standards and principles--both practical and aesthetic--of photography and visual communication. This course includes a survey of the profession of photojournalism, and an introduction to the emerging digital imaging technologies. Students in this class also provide the photographs for the college newspaper, The Voice. Requires access to a camera with adjustable speeds and “f” stops.
Transfer Credit: Transfers to CSU.

JOURNAL 21
Mass Communications
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An examination of how mass communications help shape us, tell us what to think about, what to buy, how to act, and what to be. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN JOUR4.

JOURNAL 23A
News Writing and Reporting
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC or equivalent experience.

Covers the basics of newsgathering and writing for the print media.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN JOUR2.

JOURNAL 35
Writing for the Broadcast Media
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AMC.

A writing course designed to teach students the basics of writing for the broadcast media, including news, commercials, announcements, documentaries and dramatic writing.
Transfer Credit: Transfers to CSU.

JOURNAL 50
Publications: Writing for the College Paper
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC or equivalent experience.
Recommended Preparation: Eligibility for READ 100.
Repeatability: May be taken 4 times. Any combination of JOURNAL 50 & ENGL 50 may be taken a total of 4 times.

Students will be given story assignments and beats and be trained to write for the college newspaper. Students will compose their stories on computers, so typing skills are necessary. Students are encouraged to take JOURNAL 23A before enrolling in this course.
Transfer Credit: Transfers to CSU.

JOURNAL 53
Newspaper Production and Copy Editing
4 units; 4 hours Lecture, 2 hours Laboratory
Recommended Preparation: DM 2; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Understand mechanics of newspaper production and copy editing by producing the college newspaper. Apply newspaper layout and design techniques. Apply editing skills including rewriting, proofreading and headline writing.
Transfer Credit: Transfers to CSU.

Learning Skills

Joseph Napolitano, Director, Disabled Student Program and Services (DSP&S)
Division Office, Room 810
Deborah Shulman, Program Chair, (831) 479-6566
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
http://www.cabrillo.edu/programs
Learning Skills Courses

**LS 254**
**Diagnostic Assessment**
1 unit; 1 hour Lecture
Repeatability: May be taken 4 times. Additional repetitions may be necessary to meet eligibility requirements for continuation of services as per Title 5, section 56044, "Special Class Course Repeatability."

Individual diagnostic assessment and reassessment to determine eligibility for learning disabilities services. Testing includes academic (reading-writing-math), perceptual and aptitude areas. Test results are evaluated and the LD Specialist recommends appropriate classes, strategies, and services.

**LS 200**
**Math Study Skills**
1½ units; 1½ hours Lecture
Concurrent enrollment in a math class is recommended. Repeatability: May be taken 2 times.

Study skills and strategies designed to help students overcome difficulties in learning math. Especially helpful for those enrolled in Math 254 or Math 154. This course is credit/no credit.

**LS 200L**
**Reduce Test Anxiety Lab**
1 unit; 1½ hours Laboratory
Prerequisite: LS 200 (may be taken concurrently).

Lab designed to improve test performance and reduce test anxiety using HeartMath software that increases student’s awareness of body/mind coherence for best performance. Techniques learned and practiced will improve student’s ability to learn and perform.

**LS 203**
**Science Study Skills**
1 unit; 1 hour Lecture
Repeatability: May be taken 2 times.

This class is designed to teach students the necessary study skills to increase their chances of success in physical and biological science courses. This course may be offered in a Distance-Learning Format.

**LS 255**
**Tutorial Instruction**
½ unit; 1 hour Laboratory
Recommended Preparation: Completion of LS 254 or other recent learning disability evaluation is highly advised. Repeatability: May be repeated. Additional repetitions may be necessary to meet eligibility requirements for continuation of services as per Title 5, section 56044, "Special Class Course Repeatability."

Provides instructional assistance and assistive technology for students with Learning Disabilities and other students in the Disabled Students Program & Services. Students work with instructors and tutors in support of college-level classes and in basic skill areas.

**LS 264**
**Study Skills**
3 units; 3 hours Lecture
Recommended Preparation: Repeatability: May be taken 2 times.

Recommended for students with learning disabilities, but open to all students who need study skills improvement and learning strategies. Topics include traditional study skills with an emphasis upon organization, test-taking, problem solving, stress reduction, goal setting and memory strategies.

**LS 264L**
**Applied Study Skills**
½ unit; 1 hour Laboratory
Corequisite: LS 264.

Additional structured application of study skills learned in LS 264 to specific content of academic classes. Students create an individual study system based on study skills needs survey and actively apply their study system in order to improve overall academic performance. This course may be taught in a Distance-Learning Format in which contact with the instructor will be through four on-campus meetings and by phone or e-mail.

**LS 281**
**Strategies for Students with Learning Disabilities & Attention Deficit Disorder**
3 units; 3 hours Lecture
Repeatability: May be taken 2 times.

Recommended for all students interested in learning disabilities and/or attention deficit disorder. Students will acquire knowledge of learning disabilities and attention deficit disorder. Focus is on the importance of students understanding their individual strengths and weaknesses. Also emphasizes successful compensatory strategies, accommodations, communication with others about learning disabilities and attention deficit disorder, stress, organization, and time management skills. May be offered in a Distance-Learning Format.

Liberal Arts and Sciences | 191

**Information for Liberal Arts and Sciences Majors**

The student needs to complete the general education program and requirements for the major, which must include degree-applicable units in mathematics, and transferable units from the following: humanities, social sciences, and natural sciences. Study of a foreign language is recommended.
Liberal Studies (for Elementary School Teaching) Transfer Information

The Cabrillo College Liberal Studies transfer program is designed for students who are interested in becoming elementary school teachers in California. The Liberal Studies major is the most common "approved major" for teacher preparation and the major that best prepares students to take the CSET. The program below reflects requirements that enable a student to transfer to a CSU campus completing all lower division requirements. Please note that in GE Areas B through D, students are directed to check the major preparation agreement for their transfer university on ASSIST to choose the recommended courses. With careful selection of course work a student may prepare for several universities as well as complete the lower division general education requirements and some of the classroom hours needed to enter a credential program.

Additional course work may be required or recommended by the transfer institution. Please see a counselor for assistance.

LIBERAL STUDIES
See EDUCATION

LIBRARY SCIENCE/INFORMATION SCIENCE
Library Learning Resources Center
Johanna Bowen, Director
Library, Building 1000
Circulation, (831) 479-6437
http://libwww.cabrillo.edu

Library Science/Information Science Information
A master’s degree in Library Science/Information Science leads to a career in a variety of library settings, including school libraries, public libraries, and academic libraries. Admission to a library science or information science master’s degree program requires a bachelor’s degree. A student interested in librarianship usually has an academic major and transfers to a four-year institution to complete a bachelor’s degree.

Library Science Courses

LIBR 10
Information Research
1 unit; ½ hour Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches information literacy and research concepts, skills, and techniques. Covers online catalogs, full text databases, and Internet sites as well as library books and materials. Applies the process of access, evaluation, and utilization to selecting and interpreting quality information sources for the construction of works cited lists. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

LIBR 15A-Z
Special Topics in Library Research
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100.
Intensive examination of some specialized aspects of libraries and other information resources and their use to meet academic or personal learning objectives.
Transfer Credit: Transfers to CSU.

LIBR 18
Advanced Internet Searching
1 unit; 1½ hours Lecture, 1½ hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches advanced Internet search techniques, with focus on using leading-edge strategies and resources. Topics include: finding resources excluded from general-purpose search tools; application of search engine limiters and expanders; how to organize and manage information resources once retrieved; how to transfer data, images, and other materials for personal file management. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

LIBR 203
Tutoring Methods
1 unit; 1 hour Lecture
Repeatability: May be taken 4 times.
Teaches methods for tutoring, with special emphasis on managing groups, bridging cultural gaps, and tutoring students with disabilities. May be offered in a Distance-Learning Format.

LIBR 502
Supervised Tutoring
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Offers drop-in tutorial assistance in both high school equivalence courses and in university transfer courses.

MATHEMATICS
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Nancy Fetterman, Program Chair, (831) 479-6499
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs
Information for Mathematics Majors

The major in mathematics provides a broad foundation of problem solving and logical reasoning skills. The mathematics major learns to use patterns and relationships to analyze mathematical situations and solve a wide variety of problems.

Career opportunities include teacher, researcher, and statistician. Graduates work in private industry, government and many areas of technological research and computer-related fields.

MODEL PROGRAM FOR MATHEMATICS

The following model program fulfills requirements for the A.S./A.A. Degree in Mathematics at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH 5ABC</td>
<td>Analytic Geometry and Calculus I, II, III</td>
</tr>
<tr>
<td>MATH 6</td>
<td>Introduction to Linear Algebra</td>
</tr>
<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
</tr>
</tbody>
</table>

### Electives

<table>
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<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>MATH 23</td>
<td>Discrete Mathematics</td>
</tr>
</tbody>
</table>

Note: No other math class counts toward an associate degree in mathematics.

#### Recommended from Related Disciplines

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
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<td>Natural, Physical, Computer Science and/or Engineering</td>
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<tr>
<td>PHYS 4ABC</td>
<td>Physics for Scientists &amp; Engineers</td>
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### Associate in Arts Degree in Mathematics

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<th>Course</th>
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<td>Mathematics Core Courses</td>
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<tr>
<td>Physics 4ABC</td>
<td>Physics for Scientists and Engineers</td>
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Total for A.A. Degree in Mathematics: 60

### Associate in Science Degree in Mathematics

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<th>Course</th>
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<tbody>
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<td>General Education</td>
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</tr>
<tr>
<td>Mathematics Core Courses</td>
<td>18</td>
</tr>
<tr>
<td>Physics 4ABC</td>
<td>Physics for Scientists and Engineers</td>
</tr>
<tr>
<td>Mathematics, Natural, Physical, Computer Science and/or Engineering Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Total for A.S. Degree in Mathematics: 60

### GENERAL INFORMATION ABOUT MEETING PREREQUISITES

A minimum grade of “C” is required in the prerequisite course. It is strongly recommended that prerequisite course work not be more than two years old. Verification of prerequisites will be required. Prerequisites for courses in this department are computer enforced. Students should be sure their records have been entered into the Cabrillo computer system before attempting to enroll. Course prerequisites may be met in the following ways:

- Successful completion of the prerequisite course as listed in the Catalog or Schedule of Classes
- Successful completion of appropriate coursework at another college or university
- An appropriate placement score
- For certain courses, equivalent professional experience

If you believe you have completed the listed prerequisites or corequisites for a course as listed in the Catalog or Schedule of Classes, make an appointment to see a counselor.

### Mathematics Courses

#### MATH 4

**Pre-Calculus Algebra and Trigonometry**

5 units; 5 hours Lecture

Prerequisite: MATH 152 or equivalent skills.

Recommended Preparation: MATH 153 or high school geometry or equivalent skills; Eligibility for ENGL 100 and READ 100.

- A study of functions and their properties including trigonometric, logarithmic, exponential, polynomial, rational functions and their graphs, inverses and applications. The relationship between the equation form of a function and its graph will be emphasized. May not be taken credit/no credit. May be offered in a Distance-Learning Format.
  - **Transfer Credit:** Transfers to CSU. Transfers to UC. CAN MATH18.

#### MATH 5A

**Analytic Geometry and Calculus I**

4 units; 5 hours Lecture

Prerequisite: MATH 4 or equivalent skills.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Designed for majors in mathematics, engineering and physical sciences. Plane analytic geometry of lines and graphing, differential calculus of algebraic and transcendental functions of one variable with applications. May not be taken credit/no credit.
  - **Transfer Credit:** Transfers to CSU. Transfers to UC: MATH 5A & 18 combined-maximum credit-1 course. CAN MATH18.

#### MATH 5B

**Analytic Geometry and Calculus II**

4 units; 5 hours Lecture

Prerequisite: MATH 5A or equivalent skills.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Designed for majors in mathematics, engineering, and physical sciences. Integral calculus of algebraic and transcendental functions of one variable with applications, techniques of integration, sequences and series. May not be taken credit/no credit.
  - **Transfer Credit:** Transfers to CSU. Transfers to UC. CAN MATH20.

#### MATH 5C

**Analytic Geometry and Calculus III**

4 units; 5 hours Lecture

Prerequisite: MATH 5B or equivalent skills.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

- Designed for majors in mathematics, engineering, and physical sciences. Vectors and vector functions, multivariable calculus of algebraic and transcendental functions, line and surface integrals, vector field theory. May not be taken credit/no credit.
  - **Transfer Credit:** Transfers to CSU. Transfers to UC. CAN MATH22.
MATH 6
Introduction to Linear Algebra
3 units; 3 hours Lecture
Prerequisite: MATH 5C or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces linear algebra, including vectors in n-dimensional R, matrices, row reductions, inverse matrices, determinants, vector spaces, basis, change of basis, linear independence, transformations, eigenvalues, eigenvectors, Gram-Schmidt process. Offered spring only. May not be taken credit/no credit.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN MATH26.

MATH 7
Introduction to Differential Equations
3 units; 3 hours Lecture
Prerequisite: MATH 5C or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
An introductory course in Differential Equations: first order, second order, homogeneous, nonhomogeneous, variation of constants, applications. Simple linear systems with constant coefficients, Laplace transforms, Euler’s method. May not be taken credit/no credit.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN MATH24.

MATH 10
Survey of College Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A survey course in mathematics that uses intermediate algebra skills to examine the concepts and applications of various topics. Core topics are: set theory, logic, mathematical modeling, probability and statistics. Additional topics may include: mathematical systems, the mathematics of finance, ideas from geometry, or an introduction to calculus concepts.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN MATH24.

MATH 12
Elementary Statistics
4 units; 5 hours Lecture, ½ hour Laboratory
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: CABT 106 (may be taken concurrently) or previous Cabrillo computer course or equivalent knowledge of MS DOS and Windows. Eligibility for ENGL 100 and READ 100.
Histograms, measures of central tendency and dispersion, probability, binomial and normal distributions, estimation and hypothesis testing, regression and correlation. Recommended for social science majors, environmental studies majors, and some liberal arts majors. See model programs in the college catalog. This course requires extensive use of a graphing calculator or desktop computer to complete several required lab assignments. See your instructor for details. May be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN MATH12 combined with BUS 9-maximum credit-1 course. CAN STAT2.

MATH 13
Finite Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 152, or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Set theory, linear programming, matrices, mathematics of finance, probability, with applications to business and the social sciences.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN MATH12.

MATH 15
Number Systems
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 152 and MATH 153, OR equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an understanding of the nature of arithmetic and the structure of mathematical systems as used by liberal arts students and prospective elementary teachers. Topics covered may include a study of sets, relations, systems of numeration, and the real number system. Offered spring only-even years.
Transfer Credit: Transfers to CSU. Transfers to UC. Does not meet the UC Math Admission requirement. CAN MATH4.

MATH 18
Business Calculus
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an intuitive introduction to differential and integral calculus for functions of one variable and an introduction to functions of several variables including partial differentiation and maxima/minima problems.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: MATH 5A & 18 combined-maximum credit-1 course. CAN MATH34.

MATH 23
Discrete Mathematics
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 5A or equivalent.
Recommended Preparation: CS 19 or CS 20J or equivalent; Eligibility for ENGL 100 and READ 100.
Presents discrete mathematical systems including methods of proof that shape the foundations of computer science. Includes set and number theory, Boolean Algebra, deductive and inductive proof, logic, equivalence, order, and recurrence relations, combinatorics, graph and network models, circuits and circuit minimization techniques, automata, and grammars. Computer science majors should enroll in CS 23 (identical to MATH 23). Offered spring only.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN CSCI26.
MATH 152
Intermediate Algebra
4 units; 5 hours Lecture
Prerequisite: MATH 154 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Further development of algebra skills acquired in elementary algebra, which include the system of real numbers, polynomials, algebraic equations (linear, systems of linear, quadratic, and applications). The characteristics and properties of linear and quadratic functions are studied in detail, with an introduction to negative exponents, systems of linear equations in three variables, complex rational expressions, complex numbers, inverse, exponential and logarithmic functions, conic sections, and non-linear systems. Problem-solving skills are developed to encourage students to use their basic knowledge of algebra to explore problems. May not be taken credit/no credit. May be offered in a Distance-Learning Format.

MATH 153
Plane Geometry
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the vocabulary and principles of Euclidean geometry, developing critical thinking skills using inductive and deductive reasoning while exploring the concepts of congruence and similarity, the properties of angles, lines, polygons, circles, and solids. May be offered in a Distance-Learning Format.

MATH 154
Elementary Algebra
4 units; 5 hours Lecture
Prerequisite: MATH 254 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents a systematic development of numbers, polynomials and polynomial fractions. Applications to the solution of linear equations, graphing of and solutions for systems of linear equations, quadratic equations and an introduction to exponents and radicals. Contains topics typical of first-year high school algebra, but taught at a college level. May not be taken credit/no credit. May be offered in a Distance-Learning Format.

MATH 154A
Elementary Algebra-First Half
2 units; 5 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 254 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Designed for a wide variety of students, including those who have been unsuccessful in MATH 154, are math anxious, have learning disabilities in mathematics, or desire a slower paced, year-long version of MATH 154. Course is supplemented with individual tutoring within the class structure to provide extra individual assistance and has an excellent track record of student success. This course is the first half of Elementary Algebra and, when followed by MATH 154B, satisfies Cabrillo’s math graduation requirement for the Associate of Science Degree. The content covered contains a systematic development of numbers, solving first degree equations and inequalities, graphing two variable linear equations, and two variable systems of equations. Offered fall only. May not be taken credit/no credit.

MATH 154B
Elementary Algebra-Second Half
2 units; 5 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 154A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

The second half of Elementary Algebra and intended only for students who have successfully completed MATH 154A. Provides a systematic development of polynomial fractions, applications to the solution of quadratic equations, and an introduction to exponents and radicals. Offered spring only. May not be taken credit/no credit.

MATH 158BF
Algebra Review-Basic Factoring
½ unit; ½ hour Lecture
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

This independent instruction module covers prerequisite skills for factoring followed by extensive drill on the five factoring techniques typically included in an elementary algebra course. This course may be taken credit/no credit only.

MATH 158GC
Introduction to the Graphing Calculator
½ unit; ½ hour Lecture
Recommended Preparation: Completion of or concurrent enrollment in MATH 152 or equivalent skills; Eligibility for ENGL 100 and READ 100.

An introduction to the use of handheld graphing calculators in mathematics courses. Emphasis will be placed on the Texas Instruments TI-83 (and TI-83 Plus), TI-85, TI-86, and TI-89. Strongly recommended for students enrolled in a mathematics course where the use of a graphing calculator is required. May be taken for credit/no credit only.

MATH 158PF
Algebra Review-Polynomial Fractions
½ unit; ½ hour Laboratory
Corequisite: MATH 154 (or higher level math course).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

This independent instruction module covers addition and subtraction of polynomial fractions at the level of elementary algebra. A brief review of the least common multiple of two or more polynomials is included, and the ability to express an answer in lowest terms is emphasized. May be taken for credit/no credit only.

MATH 158SI
Using the Metric System
½ unit; ½ hour Laboratory
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

This independent instruction module introduces the units and uses of the metric system and its applications. May be taken for credit/no credit only.
MATH 158T
Preparation for Tutoring Mathematics
1 unit; 3 hours Laboratory
Recommended Preparation: MATH 4 or equivalent skills. Grade of "B" in recently completed MATH classes. Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Provides tutoring techniques and hands-on training for math tutors and those interested in tutoring mathematics. Strategies for maximizing active learning are emphasized. Specifically designed for students enrolled in or recently completing MATH 12, 13, 15, 5A, 5B, or 5C.

MATH 195A-Z
Survey Topics in the Scientific Method
2 units; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Introduces to the prospective math or science major some of the tools and skills that assist scientists in their work. Covers the general framework and philosophy of the scientific method, which forms the basis for the adoption and rejection of any theory in science.

MATH 195M
Introduction to the Scientific Method
2 units; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the prospective math or science major to some of the tools and skills that assist scientists in their work. Covers the general framework and philosophy of the scientific method, which forms the basis for the adoption or rejection of any theory in science.

MATH 254
Essential Mathematics
3 units; 6 hours Laboratory
Presents topics using computer software, assisted by the instructor, and covers arithmetic procedures involving whole numbers, fractions, decimals, percent, integrated with signed numbers, equations, statistics, proportions, graphing, and geometry. May be taught in a Distance-Learning Format.

MATH 254A
Essential Mathematics–First Half
2 units; 3 hours Lecture, 2 hours Laboratory
Covers arithmetic procedures involving whole numbers, fractions, and decimals integrated with equations and proportions.

MATH 254B
Essential Mathematics–Second Half
2 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: MATH 254A.
Continuation of arithmetic studies of MATH 254A with decimals and percent integrated with signed numbers, equations, proportion, statistics and graphing. This course is the second half of MATH 254.

MATH 502
Supervised Tutoring
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Supervised individual and group drop-in tutoring assistance in basic skills, high school equivalent, and transfer mathematics courses, including mathematics applications found in science courses. Repeatable with each enrollment in a Cabrillo mathematics course.

MEDICAL ASSISTANT
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Chair
Division Office, Room 1102
Charlotte Jensen, Program Chair, (831) 479-6438
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6248 for more information
http://www.cabrillo.edu/programs

Medical Assistant Occupational Program
The Cabrillo College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727-210-2350

The Medical Assistant represents an extension of the medical profession; thus the job demands the same high caliber of ethics, attitude, confidentiality and performance that the public has come to expect of the medical profession. Opportunities are many and varied, depending upon such factors as personal ability, experience and education. Medical Assistants may become managers of clinics or group practices as well as assist in the physician's office, clinic or hospital.

Background Checks
Background checks may be required according to clinic and hospital policy for Medical Assistant Department students doing Cooperative Work Experience (CWE).

Students who keyboard 30+ wpm accurately are exempt from CABT 110AB and may substitute a course from the approved electives list.

Students who keyboard 40+ wpm accurately are exempt from CABT 110ABC and may substitute a course from the approved electives list.
## MEDICAL ASSISTANT OPTION

### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>CABT 110C</td>
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<tr>
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</tr>
<tr>
<td>MA 130A, 130AL, 130B</td>
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<tr>
<td>MA 185 B</td>
<td>1</td>
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<tr>
<td>MA 160</td>
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<tr>
<td>MA 165</td>
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<td>MA 170A</td>
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<td>MA 176</td>
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<td>MA 176L</td>
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### Approved Electives

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### Associate in Science Degree in Medical Assistant

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<tr>
<td>General Education</td>
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<tr>
<td>Medical Assistant Option Core Courses</td>
<td>31½-34½</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>4½-7½</td>
</tr>
</tbody>
</table>

**Total for A.S. Degree in Medical Assistant**  60

## MEDICAL ADMINISTRATIVE ASSISTANT OPTION

The Medical Administrative Assistant works in a healthcare facility doing front office and administrative tasks. Positions require excellent communication and detail skills. Medical Administrative Assistants find employment opportunities with physicians, clinics, and hospitals.

### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>CABT 110A/B*</td>
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<td>MA 184</td>
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### Approved Electives

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<td>MA 186</td>
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### Certificate of Proficiency:

**Medical Administrative Assistant Option**

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<tr>
<td>Core Courses</td>
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<tr>
<td>ENGL 100/1A/1AMC or CABT 157</td>
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</table>

**Total for Certificate of Proficiency**  31-33
MEDICAL INSURANCE SPECIALIST OPTION

The Medical Insurance Specialist does billing and/or procedural and diagnostic coding. Medical billing and coding employment opportunities are increasing. Training, experience and continuing education increase advancement in medical billing and coding. Medical Insurance Specialists can work for physicians, clinics, hospitals, and for benefit departments in industry.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tr>
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Approved Electives

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<td>CABT 157</td>
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<td>MA 178</td>
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Associate in Science Degree in Medical Insurance Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>General Education</td>
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<tr>
<td>Medical Insurance Specialist Core Courses</td>
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Certificate of Proficiency: Medical Insurance Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>Medical Insurance Specialist Core Courses</td>
<td>24½</td>
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<tr>
<td>ENGL 100/1A/1AMC or CABT 157</td>
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</tr>
<tr>
<td>Approved Electives</td>
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<td>Total for Certificate of Proficiency: Medical Insurance Specialist</td>
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</table>

*Students who keyboard 40+ wpm accurately are exempt from CABT 110ABC and may substitute a course from the approved electives list. Students who keyboard 30+ wpm accurately are exempt from CABT 110AB and may substitute a course from the approved electives list.

SKILLS CERTIFICATE: MEDICAL RECEPTIONIST

The skill certificate prepares students for employment in positions in healthcare and industry that involve performing as a medical receptionist.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>*CABT 110A</td>
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<tr>
<td>*CABT 110C</td>
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<td>CABT 103A</td>
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<tr>
<td>MA 170A</td>
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<td>MA 170B</td>
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<tr>
<td>MA 173A</td>
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<td>MA 172</td>
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<td>MA 181</td>
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<tr>
<td>MA 182</td>
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</tr>
<tr>
<td>MA 184</td>
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<td>MA 199C</td>
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<tr>
<td>Total for Skills Certificate</td>
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</table>

*Students who keyboard 40+ wpm accurately are exempt from CABT 110ABC and may substitute from the approved electives list. Students who keyboard 30+ wpm accurately are exempt from CABT 110AB and may substitute from the approved electives list.

SKILLS CERTIFICATE: EKG TECHNICIAN

The skills certificate prepares students for employment in positions in healthcare and industry that involve performing electrocardiograms in inpatient and outpatient settings.

Core Courses

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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
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<td>MA 183A</td>
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<td>MA 183B</td>
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<tr>
<td>Total for Skills Certificate</td>
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</table>

SKILLS CERTIFICATE: PHLEBOTOMY TECHNICIAN

The skill certificate prepares students for employment in positions in healthcare and industry that involve drawing blood in inpatient and outpatient settings.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tr>
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<td>MA 173A</td>
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<td>MA 176</td>
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<td>MA 199C</td>
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<tr>
<td>Total for Skills Certificate</td>
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</table>
Medical Assistant Courses

MA 130A
Phlebotomy
1½ units; 1½ hours Lecture
Prerequisite: MA 170A and MA 176 and MA 176L.
Corequisite: MA 130AL or current California phlebotomy certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers proper collection of blood specimens, choice of proper equipment, venipuncture techniques, patient care, safety, tests, and quality assurance. This course is designed for all beginning students and for phlebotomists, except for those phlebotomists with more than 1,040 hours of phlebotomy. New students who wish to become California state certified phlebotomists must complete MA130A, MA130B and MA130AL, and a 120-hour externship. Phlebotomists with less than 1,040 hours must take MA130A and B to become certified. Phlebotomists with more than 1,040 hours must take MA130B. All students must pass the California state examination to become certified. May be taught as a distance learning course.

MA 130AL
Phlebotomy Lab
1 unit; 4 hours Laboratory
MA 130A or current California phlebotomy certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Designed for beginning phlebotomy students working towards state certification. This is the skills portion of the MA 130 series. Students will perform approximately 35 venipunctures and 2 skin punctures, learning clinical and hospital procedures. A two-unit externship (MA 199C) is also required for those planning to become state certified phlebotomists. Students will pay a lab kit fee, liability policy fee, and show proof of start of hepatitis series. Student skills must demonstrate compliance to safety instructions or students may be dropped from course. New students who wish to become California state certified phlebotomists must complete MA130A, MA130B and MA130AL, and a 120-hour externship. Phlebotomists with less than 1,040 hours must take MA130A and B to become certified. Phlebotomists with more than 1,040 hours must take MA130B. All students must pass the California state examination to become certified.

MA 130B
Phlebotomy-Advanced
1½ units; 1½ hours Lecture
Prerequisite: MA 130A and MA 130AL or current California phlebotomy certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Covers phlebotomy equipment, techniques, patient care, safety, tests, advanced infection control and biohazards, quality assurance and communications. Advanced lecture required for state certification. Course designed for all students including phlebotomists with more than 1,040 hours of phlebotomy experience. New students who wish to become California state certified phlebotomists must complete MA130A, MA130B and MA130AL, and a 120-hour externship. Phlebotomists with less than 1,040 hours must take MA130A and B to become certified. Phlebotomists with more than 1,040 hours must take MA130B. All students must pass the California state examination to become certified. May be taught as a distance learning course.

MA 140
Eye Disease/Pharmacology
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100.
A study of major diseases, symptoms, treatments of the eye and related structures and common ophthalmic drugs, uses, effects, dangers, and precautions.

MA 141
Introduction to Clinical Eye Skills
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100; Eligibility for MATH 154.
Basic ophthalmic test principles and techniques including the ocular screening exam, visual acuity measurement, slit lamp examination, tear function and color vision tests. Tonometry, refractometry, and retinoscopy will be reviewed and demonstrated.

MA 150
Pharmacology for Medical Assistants
1 unit; 1 hour Lecture
Prerequisite: MA 170A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 2 times.
This course is designed for Medical Assistant and Allied Health program students who require an understanding of pharmacology. It provides the basic rationale for current drug therapy including the mechanisms of action, main therapeutic effects, clinical indications, adverse reactions, and drug interventions.
MA 160
Basic ICD-9-CM and CPT Coding
1 unit; 1 hour Lecture
Prerequisite: MA 170A or MA 170B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches basic principles and conventions of the ICD-9-CM and CPT coding classification systems to allied health students. Emphasis is on the format and use of coding in the healthcare field, and how to access and assign ICD-9-CM and CPT codes. (Those students who are studying for an Insurance Specialist Certificate or Degree, or who plan a career in coding and billing should enroll in MA 179A, MA 186, and MA 179B).

MA 165
Injection Short Course
1 unit; ½ hour Lecture, 1 hour Laboratory
Prerequisite: MA 170A, MA 176.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches allied health students and current healthcare employees the correct procedures for administering intramuscular, intradermal and subcutaneous injections. Liability insurance, hepatitis series and kit fee required.

MA 170A
Medical Terminology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 3 times.
Fundamentals of medical word building. Emphasis on prefixes, word roots, suffixes, combining forms, abbreviations, and lay terms. The course provides a background for any paramedical course. May be taught as a distance learning course.

MA 170B
Medical Terminology—Structure & Function of the Body
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Terms of anatomy, physiology, diagnostic, operative, and x-ray procedures. Course helpful to all paramedical students.

MA 171A
Medical Transcription A
3 units; 1 hour Lecture, 6 hours Laboratory
Prerequisite: CABT 110A or equivalent skill; MA 170A or concurrent enrollment.
Recommended Preparation: CABT 131AB. Those without typing skills are encouraged to take CABT 110A. Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Instruction and practice in typing medical case histories, medical articles, and medical correspondence.

MA 172
Medical Office Procedures
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Deals with activities within a medical office or clinic including interpersonal relationships, principles of medical reception duties, appointment scheduling, telephone techniques, written communications, completion of medical forms and filing, and medical office bookkeeping.

MA 173A
Medical Law & Ethics
1½ units; 1½ hours Lecture
Corequisite: MA 182.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Teaches medical ethical and medical legal problems including discussion of real court cases, medical assistant state regulations and legal standards of practice for health care workers.

MA 173B
Medical Office Management
1½ units; 1½ hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Study and practice of medical office management including financial management, accounts receivable ratios, credit and collections, general office administration, and human resource management.

MA 175
CMA Certification Review
½ unit ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Review of examination materials for national examination and completion of practice exams.

MA 176
Introduction to Medical Assisting Procedures
3 units; 3 hours Lecture
Recommended Preparation: MA 170A; Eligibility for ENGL 100 and READ 100.
Course prepares students to perform basic clinical skills utilized in outpatient medical settings. Included are vital signs, EKGs, administration of medications (oral and injectable), and infection control. Theory, including relevant anatomy and physiology, microbiology, and pharmacology, constitutes a major portion of the course work.

MA 176L
Medical Assisting Lab
1 unit; 3 hours Laboratory
Corequisite: MA 176.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Practice in clinical procedures including vital signs, handwashing techniques, injections, aseptic procedures, and sterilization procedures.
MA 178
Beginning Medical Spanish
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
Course in conversational Spanish with emphasis on medical terminology.

MA 178A
Medical Spanish
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Course in conversational Spanish with emphasis on medical terminology.

MA 178B
Medical Spanish
2 units; 2 hours Lecture
Prerequisite: MA 178A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Continued course in conversational Spanish with emphasis on medical terminology.

MA 179
Diagnostic & Procedural Coding for Medical Facilities
3 units; 3 hours Lecture
Prerequisite: MA 170A.
Recommended Preparation: Eligibility for ENGL 100.
A course for students to obtain a working knowledge of the principles, terms, and conventions of ICD-9-CM and CPT coding assignments as applicable to medical facilities.

MA 179A
Diagnostic & Procedural Coding for Medical Facilities
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: MA 170A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
A course for students to obtain a working knowledge of the principles, terms, and conventions of ICD-9-CM coding assignments as applicable to medical facilities.

MA 179B
Intermediate ICD-9-CM/CPT Coding
3 units; 1 hour Lecture, 6 hours Laboratory
Prerequisite: MA 179A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
A course for students who want to obtain a working knowledge of the principles, terms, and conventions of ICD-9-CM & CPT coding assignments as applicable to medical facilities using computer software.

MA 181
Medical Insurance
3 units; 3 hours Lecture
Prerequisite: MA 160; or MA 179A and MA 186.
Recommended Preparation: Eligibility for ENGL 1A/1AMC.
Repeatability: May be taken 2 times.
Teaches theory and application of medical insurance billing and procedures as used in medical facilities. The text uses a correlated workbook with forms and simulated cases for practice in filling out and understanding insurance claim forms.

MA 182
INTRODUCTION TO HEALTH CAREERS
½ unit; ½ hour Lecture
MA 173A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces students to health care careers and requirements for health care professionals. Provides information on career opportunities, health care professionalism, confidentiality and work place skills.

MA 183A
EKG (Electrocardiography) Skills
½ unit; ½ hour Lecture, 3 hours Laboratory
Prerequisite: MA 170A and MA 176.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Proper application of EKG equipment and determination of proper testing procedures. Equipment, techniques, patient care, safety, tests, quality assurance are covered. Designed for students in Medical Assistant, RN, RT or PCT Programs.

MA 183B
Advanced EKG (Electrocardiography) Skills
1 unit; 1 hour Lecture
Prerequisite: MA 183A.
Repeatability: May be taken 2 times.
Advanced EKG course to help students recognize artifacts and cardiac irregularities and assist with Holter monitoring.

MA 184
Health Care Communication & Etiquette
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Skills of professional conduct and interaction for healthcare settings and for job-related social settings. Designed for students in the Medical Assistant and other healthcare programs.
MA 185B
Phlebotomy
1 unit; ½ hour Lecture, 1½ hours Laboratory
Prerequisite: MA 170A and MA 176. Students must have the first of three Hepatitis B vaccinations prior to beginning venipuncture. Recommended Preparation: Eligibility for ENGL 100. Repeatability: May be taken 2 times.
A short course in phlebotomy for allied health students. Students will complete 10 successful venipunctures.

MA 186
CPT (Current Procedural Terminology) Coding
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 2 times.
Covers procedural coding for office and out-patient procedures.

MA 187
Health Records Management
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 2 times.
An overview of health information management as applicable to hospitals, clinics, skilled nursing facilities, and home health agencies. Course includes development, content, storage, retrieval and maintenance of patient care records, registries and computerized patient records.

MA 190D
Allied Health - Medical Spanish
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 2 times.
Course in conversational Spanish with emphasis on medical terminology.

MA 190E
Medical Office Bookkeeping
½ unit; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 2 times.
Short bookkeeping course for limited number of students completing the Medical Assistant Program who finished MA 172 prior to its revision to 3 units (effective fall 2002) and who have not completed ACCT 151M prior to its deactivation (spring 2002). Contact Charlotte Jensen 479-6438 for further clarification.

METEOROLOGY
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Dave Balogh, for Additional Information, (831) 479-6346
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Meteorology Majors
Meteorology is that branch of natural science which deals with the atmosphere and its interactions with the rest of the planet Earth. It is both an applied and theoretical science. Students who wish to major in the field should have a good understanding of mathematics, chemistry and physics.
Career opportunities include researcher, teacher, government service, forecasting, and television and radio weathercaster. Some career positions do not require the B.S. or graduate degrees.
Cabriollo does not offer an A.A. or A.S. Degree in Meteorology. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>MATH 5ABC</td>
<td>12</td>
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<tr>
<td>CHEM 1A</td>
<td>5</td>
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<tr>
<td>PHYS 4AB</td>
<td>10</td>
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Recommended

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>*MATH 7</td>
<td>3</td>
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*Meteorology requires a course in differential equations.
The transfer student may take a course in ordinary differential equations at the community college and request content credit upon transfer.
Meteorology electives not required for transfer

METEO 1    Elementary Meteorology     3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Explores the composition, structure and motion of the atmosphere including: weather systems, clouds and precipitation, radiation, upper atmospheric phenomena, microclimates, meteorological instruments, and observations.
Transfer Credit: Transfers to CSU. Transfers to UC.
optional specialized training courses.

The music curriculum provides a program for the student who wishes to (1) pursue an advanced degree in music, (2) become a professional musician, (3) prepare for a career in public school teaching, (4) broaden a general knowledge of music, or (5) develop performance skills. Students will be given the theory, keyboard, and sight-reading skills necessary to transfer to a four-year college music curriculum, where they will be expected to pass proficiency exams in each of these areas. Participation in at least one principal performance group is highly recommended for each semester. Some transfer schools may require a foreign language (usually French, Italian, or German). See a counselor for transfer information for a B.A. Degree.

Information for Music Majors

The music curriculum provides a program for the student who wishes to (1) pursue an advanced degree in music, (2) become a professional musician, (3) prepare for a career in public school teaching, (4) broaden a general knowledge of music, or (5) develop performance skills. Students will be given the theory, keyboard, and sight-reading skills necessary to transfer to a four-year college music curriculum, where they will be expected to pass proficiency exams in each of these areas. Participation in at least one principal performance group is highly recommended for each semester. Some transfer schools may require a foreign language (usually French, Italian, or German). See a counselor for transfer information for a B.A. Degree.

Opportunities for other careers in commercial music are found in music publishing, composition, nightclub entertainment, dance bands, backup singing groups, lead singing, recording studios, music sales, music retailing, librarian work, and management. The requisite background for these careers is found in the basic music major curricula plus optional specialized training courses.
Applied Electives

**Guitar**
- MUS 26A Beginning Jazz/Rock Guitar Techniques...
- MUS 26B Advanced Jazz/Rock Guitar Techniques...
- MUS 27 Beginning Popular Guitar Techniques...
- MUS 33A Beginning Classical Guitar...
- MUS 33B Intermediate Classical Guitar...

**Voice**
- MUS 15A Beginning Jazz & Popular Solo Voice...
- MUS 17A Beginning Voice...
- MUS 17B Intermediate Voice...
- MUS 17C Advanced Voice...
- MUS 85A Renaissance Performance Practice...
- MUS 85B Vocal Literature and Interpretation...
- MUS 85S Sight Singing and Ear Training...

**Piano**
- MUS 22A Intermediate Piano...
- MUS 23 Advanced Piano...
- MUS 51B Beginning Piano II...
- MUS 51J Jazz Piano Techniques...
- MUS 85P Introduction to Piano Accompanying...

**Strings**
- MUS 19 Beginning Strings...

**Winds/Brass**
- MUS 18A Beginning Wind (Band) Instruments...

**Percussion**
- MUS 85C West African Drumming and Rhythms...
- MUS 85D Afro-Caribbean Drumming and Rhythms...
- MUS 85E Drums and Percussion...
- MUS 85G Javanese Gamelan...

**Applied Music**
- MUS 16 Applied Music: Woodwinds, Strings, Brass, Piano, Voice, Percussion...

**Music Education**
- MUS 85M Introduction to Music in Schools...
- MUS 18A Beginning Wind (Band) Instruments...
- MUS 19 Beginning Strings...
- MUS 33A Beginning Classical Guitar...
- MUS 51A Beginning Piano I...

**Songwriting**
- MUS 28 Popular Songwriting...

**Technology Electives**
- MUS 7 Music Synthesis, Sampling and Electronic Music...
- MUS 31A Introduction to Recording Studio...
- MUS 31B Intermediate Recording Techniques: The Project Studio...
- MUS 57 Music and Computers...

**Appreciation and History Electives**
- MUS 10 Music Appreciation...
- MUS 11A Jazz Appreciation...
- MUS 11LA Latin American Music Appreciation...
- MUS 12 World Music...
- MUS 13A Survey of American Popular Music...
- MUS 77 Correlation of the Arts...
- MUS 82 Historical Survey of Music...

**Associate in Arts Degree in Music**

| General Education | 30 |
| Performance Electives | 10 |
| Applied Electives | 3 |
| Technology or Appreciation Electives | 3 |
| Electives (in Music or other areas) | 10 |
| **Total for A.A. Degree in Music** | 60 |

**Music Courses**

**MUS 1**

**Comprehensive Music Theory I**
3 units; 3 hours Lecture, 1 hour Laboratory
Corequisite: MUS 1M.
Recommended Preparation: MUS 6, MUS 5 or equivalent skills; eligibility for ENGL 100 and READ 100.
Introduces and develops the study of common practice harmony and melody through figured bass and analysis as represented by the works of J.S. Bach, Mozart, and Beethoven. Knowledge of scales, key signatures, intervals and chords, equivalent to MUS 5 or MUS 6, is necessary to succeed in this course.
Transfer Credit: Transfers to CSU. Transfers to UC.

**MUS 1M**

**Musicianship I**
3 units; 3 hours Lecture, 1 hour Laboratory
Corequisite: MUS 1.
Recommended Preparation: MUS 6 or MUS 5 or equivalent skills; eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. If repeated, this course need not be taken concurrently with MUS 1.
Teaches and develops ear training, dictation and sight singing, including solfeggio. This is the musicianship component for theory for music majors and minors.
Transfer Credit: Transfers to CSU. Transfers to UC.

**MUS 2**

**Comprehensive Music Theory II**
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 1 or equivalent skills.
Corequisite: MUS 2M.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues development of written skills and analysis from MUS 1, including formal analysis and modulation.
Transfer Credit: Transfers to CSU. Transfers to UC.
MUS 2M
Musicianship II
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 1M or equivalent skills.
Corequisite: MUS 2.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues development of sightsinging and aural recognition skills from MUS 1M.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 3
Comprehensive Music Theory III
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2 or equivalent skills.
Corequisite: MUS 3M.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues development of harmonic and melodic understanding of music literature from MUS 2, including chromaticism. Need not be taken in sequence with Music 4 and 4M.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 3M
Musicianship III
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisites: MUS 2 and MUS 2M or equivalent skills.
Corequisite: MUS 3.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Advances aural skills from MUS 2M including sevenths, modulation, and non-scale tones.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 4
Comprehensive Music Theory IV
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2 or equivalent skills.
Corequisite: MUS 4M.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Continues the required music major series with advanced studies in harmonic and formal analysis, late 19th century and 20th century techniques, and composition; need not be taken sequentially from MUS 2.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 4M
Musicianship IV
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2M or equivalent skills.
Corequisite: MUS 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops advanced skills in sight singing and melodic, harmonic and rhythmic dictation continued from either MUS 2M or MUS 3M.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 5
Beginning Jazz/Pop Music Theory
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Theoretical fundamentals of jazz and related modern music, from rhythmic notation, clefs, and intervals through 13th chords with alterations.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 6
Fundamentals of Music
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces common practice musical notation through musical reading of key signatures, intervals, triads and progression. May be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: No credit if taken after 1 or 1M.

MUS 7
Music Synthesis, Sampling, and Electronic Music
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces the use of synthesizers and digital sampling in the composition of electronic music. Topics include: analogue synthesis, digital synthesis, digital sampling, sample editing, digital processing, MIDI and electronic music composition, including "hands-on" experience for individual projects. Basic knowledge of music fundamentals (equivalent to Mus 6 or Mus 5A) is recommended for this course.
Transfer Credit: Transfers to CSU.

MUS 9A
Advanced Jazz Theory/Beginning Jazz Arranging
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: MUS 6 or MUS 5 or equivalent skills.
Eligibility for ENGL 100 and READ 100.
Continues study of jazz theory and introduces jazz arranging. Includes chord spelling, chord progression, rhythm, melody, chord notation, instrument ranges. Form and music arranging for nine pieces. Knowledge equivalent to beginning jazz theory or music fundamentals is recommended for this course.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 10
Music Appreciation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies music of western civilization during the Baroque, Classical, Romantic and 20th century periods. Understanding and enjoyment of music is developed by the study of the elements of music and other concepts essential to the communication of ideas and emotion. Course may be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.
MUS 11A
Jazz Appreciation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Designed for the student to become an active listener of jazz, to be aware of what is happening, and how and who is making it happen. Aesthetic criteria for examining and evaluating jazz performances. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 11LA
Latin American Music Appreciation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the folk and popular musical traditions of Latin American cultures, with an emphasis on cultural roots and the evolution of contemporary regional styles. Weekly reading assignments, participation in online discussions and research, and listening to recorded music through recordings and attendance at live performances. This course may be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 12
World Music
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the traditional music cultures of Asia, Africa, Europe, Native America and Latin America. Emphasis is on the evolution and performance practices of musical styles and the relationship between a culture's music and its religious, political, and social structure. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 13A
Survey of American Popular Music
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys American popular music as represented by pop, rock, jazz, classical, country western, theatre music, regional and traditional folk music and their cross cultural and world music influences. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 15A
Beginning Jazz and Popular Solo Voice
1 unit; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
The study and performance of songs in the popular and jazz idioms: phrasing, expression, stage presence and microphone techniques. Students should have some ability to read music and sing a melody. Transfer Credit: Transfers to CSU.

MUS 15B
Advanced Jazz and Popular Solo Voice
1 unit; 2 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 15A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.) Advanced study and performance of songs in the popular and jazz idioms. Advanced coverage of 15A areas. Analysis of historical and motivational aspects of performances. Transfer Credit: Transfers to CSU.

MUS 16
Applied Music: Woodwinds, Strings, Brass, Piano, Voice, Per
1 unit; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.) Applied instruction for music majors/minors in the student’s specific performing medium, with emphasis on technique and performance. Scholarship students are required to be concurrently enrolled in a music theory class and a performance class. Audition is required to scholarship consideration. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 17A
Beginning Voice
1 unit; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Fundamentals of singing techniques, including breath support and tone production. Studies traditional vocal repertoire of music by composers from the baroque to the twentieth century. Students should have some ability to read music. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 17B
Intermediate Voice
1 unit; 2 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 17A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Continues the study of fundamentals of singing techniques, including breath support, tone production and performance practice. Studies traditional vocal repertoire of music by composers from the Baroque to the 20th Century. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 17C
Advanced Voice
1 unit; 2 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 17B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.) Continues the study of singing techniques, emphasizing resonance and legato tone. Traditional vocal repertoire of music by composers from the Baroque to the twentieth century. Transfer Credit: Transfers to CSU. Transfers to UC.
MUS 18A
Beginning Wind (Band) Instruments
1 unit; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)

Group instruction on flute, oboe, bassoon, clarinet, saxophone, trumpet, French horn, trombone, baritone, tuba and percussion. No experience necessary. Students should provide their own instruments. Some instruments are available for checkout from the music department. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 18B
Intermediate Concert Band
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: MUS 18A or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Study and performance of band literature for intermediate wind players: flute, clarinet, saxophone, oboe, bassoon, trumpet, trombone, French horn, bass and percussion. Emphasis on sight-reading and rehearsal techniques. Must have ability to read intermediate music at sight and play an instrument with intermediate proficiency. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 18J
Intermediate Jazz Band
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: MUS 18A or equivalent experience; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.

Presents the study and performance of jazz ensemble literature for intermediate wind, brass and rhythmic section (keyboard, guitar, bass, percussion.) Emphasizes sight-reading and rehearsal techniques. Must have ability to read intermediate music at sight and play an instrument with intermediate proficiency. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 19
Beginning Strings
1 unit; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Provides beginning level group instruction in how to play the violin, viola, cello and string bass. Use of both rote and note approaches. No experience necessary. Students should provide their own instruments. Some are available for class use only. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 20
Intermediate Orchestra Instruments
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: MUS 18A or MUS 19; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)

Provides intermediate instruction for string and orchestra wind players: violin, viola, cello, string bass, flute, oboe, bassoon, recorder, trombone, trumpet, clarinet, F horn, piano, and percussion. The class emphasizes sight reading and rehearsal techniques of many pieces. Basic knowledge of instrumental music equivalent to MUS 18A or MUS 19 is needed for this course. Must have ability to read intermediate music at sight and play an instrument with proficiency. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 22A
Intermediate Piano
1 unit; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 51B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)

Continues technical studies, improvisation, performance, and practicing of piano literature. Students should have an understanding of basic (equivalent to Music 51B) technique, theory and music reading. Students should be able to play simple pieces with independent hands for classical and popular styles. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 23
Advanced Piano
1 unit; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 22A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)

Continues technical keyboard studies with an emphasis on musical analysis, interpretation, performance, literature and style. Class and private instruction. Students should have an understanding of technique, theory and music reading equivalent to MUS 22A or at the intermediate piano level. Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 24A
Beginning Jazz Improvisation
1 unit; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces element and stylistic practices of jazz improvisation for classroom and public performance. Accuracy of technique, validity of style, shadings of interpretation, disciplines of rehearsal and performance. Students should have the ability to play an instrument with proficiency and read music at sight. Transfer Credit: Transfers to CSU. Transfers to UC.
MUS 24B
Intermediate Jazz Improvisation
1 unit; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 24A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Continuation of the basics and scale foundations for jazz improvisation
initiated in MUS 24A.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 24C
Advanced Jazz Improvisation
1 unit; 2 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 24B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)
Designed to give students the ability to perform improvised solos to
“standards” and other jazz compositions. Improvisation both by memory
and by reading chord symbols. Knowledge of jazz improvisation equiva-
lent to MUS 24A and 24B is recommended for this course.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 26A
Beginning Jazz/Rock Guitar Techniques
1 unit; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces guitar techniques commonly used in jazz and rock music.
Extended chords, chord substitutions, modes, scale patterns, comping,
chord melody playing. Students should have experience equivalent to a
beginning popular music guitar course.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 26B
Advanced Jazz/Rock Guitar Techniques
1 unit; 2 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 26A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)
Continues study of guitar techniques with in-depth fretboard tech-
nique, extended harmony chord substitution, improvisation techniques
and chord solo playing. Students should have experience equivalent to a
jazz/rock guitar course.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 27
Beginning Popular Guitar Techniques
1 unit; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies basic guitar techniques for popular and jazz music; student
should have own instrument and knowledge of at least eight chords on
the guitar.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 28
Popular Songwriting
2 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Techniques and ideas for the songwriter and the serious student of
popular music. Popular songs, and student compositions discussed in
terms of form, rhythm, melody, harmony and the lyrics/music relation-
ship. Basics of copyrights and publishing will also be covered.
Transfer Credit: Transfers to CSU.

MUS 31A
Introduction to Recording Studio
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces basic recording and music production skills, utilizing com-
puter-based technologies. Topics include microphones, multi-track
recording, digital audio, mixing, MIDI, the behavior of sound, live sound,
and commercial music production. Students will have individual lab time
for “hands on” experience. Basic knowledge of music fundamentals
(equivalent to MUS 6 or 5A) is recommended for this course.
Transfer Credit: Transfers to CSU.

MUS 31B
Intermediate Recording Techniques:
The Project Studio
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: MUS 31A, MUS 57 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Continues studies of recording techniques in preparation and produc-
tion of music, utilizing computer-based technology. For studio musi-
cians, and home or professional recording engineers, this course maxi-
mizes the production capabilities of combining computer technology
with traditional recording techniques.
Transfer Credit: Transfers to CSU.

MUS 33A
Beginning Classical Guitar
1 unit; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: MUS 5, 6 or equivalent skills; Eligibility for
ENGL 100 and READ 100.
Introduces basic classical guitar technique and repertoire for the stu-
dent with little or no experience, including music reading and right and
left hand techniques. Students will learn simple pieces in the classical
style. Students should provide their own guitars.
Transfer Credit: Transfers to CSU. Transfers to UC.
MUS 33B
Intermediate Classical Guitar
1 unit; 2 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 33A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times. (With satisfactory progress.)
Continues the study of classical guitar techniques from MUS 33A.
Emphasis on technique, sight reading, development of repertoire, performance, and transcription and transposition. Students should have experience equivalent to beginning guitar.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 34
Cabrillo Cantata Chorus
1 unit; 3 hours Lecture, 2 hours Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Rehearsal and performance of choral music techniques and stylistic performance practice, emphasizing cantatas from the Baroque to the present day. A level of proficiency demonstrated by audition is required for this course. Audition includes sight-reading, foreign languages and demonstration of musicianship skills.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 35
College Choir
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Studies traditional to contemporary choral music for students with no previous choral background, with an emphasis on tone production, rhythm and sight singing skills. Should be taken in a two semester sequence.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 36
Chorale
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Rehearsal and performance of choral music from various cultures and choral periods. Students should demonstrate basic music reading skills and match pitch.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 37W
Watsonville Center Community Chorus
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Explores choral music of the world, including Latin, folk, gospel, African and traditional styles. For inexperienced and experienced singers. Students should have the ability to match pitch.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 38
Jazz Singers
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)
Study and performance of vocal jazz ensemble literature, including choral and solo work. Topics will include: jazz styles, rhythm, musicianship, solo improvisation and ensemble sound concepts. Musical skills demonstrated by audition.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 39
Westside Community Folk Song/Gospel Choir
1 unit; 3 hours Lecture, 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)
For experienced and inexperienced singers, this group studies and performs the literatures of folk, gospel, African, South American, and Asian music. Students should have the ability to match pitch.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 40
Chamber Music Ensemble
1 unit; 4 hours Lecture, 1 hour Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)
Study and performance of chamber music for strings, winds, percussion and piano. Students with intermediate to advanced playing experience will be placed in an ensemble such as a trio, quartet or quintet. Students must have the ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 44
Repertory Jazz Ensemble
1 unit; 3 hours Lecture, 2 hours Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)
Study and preparation of professional level materials published from the swing era to present day literature suitable for the large jazz ensemble. Must be able to read music at sight and play an instrument; enrollment by audition only.
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 46
Jazz Ensemble
1 unit; 3 hours Lecture, 2 hours Activity
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)
Study, rehearsal, recording and performance of contemporary big band jazz for advanced brass, wind, and rhythm section players. Enrollment by audition only. Must be able to read music at sight and play an instrument.
Transfer Credit: Transfers to CSU. Transfers to UC.
MUS 47  
Guitar Ensemble  
1 unit; 3 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Study and performance of Baroque through Contemporary wind literature. Students must have the ability to read music at sight and play a wind or percussion instrument at college level. Proficiency demonstrated by audition.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 48  
Concert Band  
1 unit; 3 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Study and performance of twentieth century band repertoire. Correct playing techniques applicable to the stylistic demands of twentieth century literature. Student must have the ability to read music at sight, play a wind or percussion instrument at college level proficiency which is demonstrated by audition.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 49  
College Symphonic Winds  
1 unit; 3 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Study and performance of twentieth century band repertoire. Correct playing techniques applicable to the stylistic demands of twentieth century literature. Student must have the ability to read music at sight, play a wind or percussion instrument at college level proficiency which is demonstrated by audition.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 50  
Jazz Repertory Workshop  
1 unit; 4 hours Lecture, 1 hour Activity  
Recommended Preparation: MUS 24C or equivalent skills; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Rehearsal and performance of compositions written in the jazz idiom for small groups of brass, wood and rhythm section players. Emphasis on chord progression analysis, solo devices, and improvisation. Audition required.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 51A  
Beginning Piano I  
1 unit; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times.  
Introduces technical and musical piano studies for students with little or no experience. Basic hand technique, theory and music reading will be taught as the student learns to play simple pieces with independent hands in classical and popular styles.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 51B  
Beginning Piano II  
1 unit; 3 hours Lecture, 1 hour Laboratory  
Prerequisite: MUS 51A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times. (With satisfactory progress.)  
Continues development of piano techniques, with more advanced work on repertory, theory and reading music at the keyboard. Student must be able to play simple pieces with independent hands in classical and popular styles, equivalent to MUS 51A, with an understanding of basic technique, theory and music reading.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 52  
Class Percussion  
1 unit; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Introduces performance techniques of the major percussion instruments used in contemporary classical and popular music. The study of drums and rudiments, keyboard percussion, non-pitched hand percussion, and ethnic percussion in an ensemble setting.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 53  
Baroque Chamber Ensemble  
1 unit; 4 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Study and performance of chamber music from the Baroque and other eras for strings, winds, percussion and piano. Discussion and lecture of baroque style, interpretation and performance. Must have the ability to read music at sight and play an instrument with proficiency.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 54  
Repertory Chamber Ensemble  
1 unit; 4 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Study and performance of chamber music for winds, strings, piano and percussion in large chamber groupings. Augmented chamber, quintets and larger works will be studied. Ability to read music at sight and play an instrument with proficiency.  
Transfer Credit: Transfers to CSU. Transfers to UC.
MUS 55  
Cabrillo Orchestra  
1 unit; 3 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Rehearsal and performance of standard orchestral literature. Must have ability to read music at sight and play an instrument with proficiency.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 56  
Latin American Music Ensemble  
1 unit; 3 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Study and performance of music from selected Latin American cultures. Open to all musicians, including brass, winds, strings, guitars, keyboards, percussion and vocalists. Must be proficient on an instrument or voice, as demonstrated by audition or prior consent of instructor.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 57  
Music and Computers  
3 units; 3 hours Lecture, 2 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Introduces the use of MIDI sequencing, music notation and Digital Audio production software to augment the study of music. Topics include: sequencing, notation, and education software, and the arranging and buying of equipment. Students will have ‘hands-on’ experience through individual projects. Basic knowledge of music fundamentals (equivalent to MUS 6 or 5A) is recommended for this course.  
Transfer Credit: Transfers to CSU.

MUS 58  
Cabrillo Symphonic Orchestra  
1 unit; 3 hours Lecture, 1 hour Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Study and performance of traditional to contemporary orchestral works, with an emphasis on sight reading and stylistic interpretation. Must have the ability to read music at sight and play an instrument with proficiency.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 61  
Cabrillo Symphonic Chorus  
1 unit; 3 hours Lecture, 2 hours Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
An in-depth study of choral music techniques and performance of 18th century through present day masterworks for the large choral ensemble. A level of proficiency demonstrated by audition is required for this course. Audition includes sight-reading, foreign languages, and demonstration of musicianship skills.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 61SU  
Cabrillo Summer Chorus  
1 unit; 3 hours Lecture, 2 hours Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Ability to match pitch.  
Repeatability: May be taken 4 times.  
Prepares for and performs music in a choral ensemble. Presents choral repertoire and choral singing techniques for study, rehearsal and performance to inexperienced and experienced singers.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 62  
Cabrillo Touring Chorus  
1 unit; 3 hours Lecture, 2 hours Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
An in-depth study of choral music techniques and performance from the Renaissance through present-day, with an emphasis on concerts combined with study-travel. Students must demonstrate a level of proficiency by audition.  
Transfer Credit: Transfers to CSU. Transfers to UC pending review.

MUS 63  
Chamber Choir  
1 unit; 3 hours Lecture, 2 hours Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Rehearsal and performance of traditional through avant-garde vocal chamber literature. Emphasis on the development of appropriate choral skills. Students must demonstrate an ability to read music and audition.  
Transfer Credit: Transfers to CSU. Transfers to UC.

MUS 64  
Cantiamo Cabrillo  
1 unit; 3 hours Lecture, 2 hours Activity  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
A premiere vocal chamber ensemble performing literature from the Renaissance to the modern era including opera scenes. Students must audition. Audition includes sight reading, ear-training, demonstration of language skills.  
Transfer Credit: Transfers to CSU. Transfers to UC.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Lecture/Activity</th>
<th>Prerequisite</th>
<th>Repeatability</th>
<th>Recommended Preparation</th>
<th>Transfer Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 65</td>
<td>Cabrillo Women’s Choir</td>
<td>1</td>
<td>3 Lecture, 1 Activity</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times. (With satisfactory progress.)</td>
<td>A no-audition chorus of women’s voices, performing classical and popular music. Builds vocal and musicianship skills in a small ensemble designed to provide individual attention through the study of choral music for women.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
</tr>
<tr>
<td>MUS 66</td>
<td>Opera Workshop</td>
<td>1</td>
<td>3 Lecture, 2 Activity</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times. (With satisfactory progress.)</td>
<td>Studies musical and dramatic elements of opera theatre, including performance of selected scenes and complete works from standard repertoire chosen to meet unique student needs. Students must demonstrate the ability to read music and audition.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
</tr>
<tr>
<td>MUS 67</td>
<td>Opera Theatre Production</td>
<td>1</td>
<td>4 Lecture, 1 Activity</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times. (With satisfactory progress.)</td>
<td>Studies musical and dramatic elements of opera theatre and production culminating in a publically performed opera. Student must demonstrate an ability to read music and audition.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
</tr>
<tr>
<td>MUS 68</td>
<td>Piano Ensemble</td>
<td>1</td>
<td>3 Lecture, 1 Activity</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times. (With satisfactory progress.)</td>
<td>Studies technique, interpretation, style, and performance of ensemble piano literature, including music for one piano four-hands, music for two and three pianos four to six hands.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
</tr>
<tr>
<td>MUS 74</td>
<td>Introduction to Musical Theatre</td>
<td>3</td>
<td>3 Lecture, 1 Activity</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 2 times.</td>
<td>Introduces basic techniques of musical theatre on stage; stage presence; training in overcoming the particular problems of musical comedy: singing, acting and movement.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
</tr>
<tr>
<td>MUS 75</td>
<td>Summer Musical</td>
<td>1 - 3</td>
<td>9 Laboratory</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times.</td>
<td>Rehearsal and performance of musical and musical comedy literature with concentration on all aspects of the production related to professional performance. Audition required for enrollment, enrollment subject to spring audition by summer musical staff.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
</tr>
<tr>
<td>MUS 77</td>
<td>Correlation of the Arts</td>
<td>3</td>
<td>3 Lecture, 1 Activity</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times.</td>
<td>Studies similarities and differences in the visual arts, music, and theatre arts are studied from an interdisciplinary perspective. Presents topics in creativity, aesthetics, style, and historical context are presented from a variety of viewpoints. Develops an awareness, understanding, and respect for diverse cultures through lecture, performance, and demonstration.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
</tr>
<tr>
<td>MUS 82</td>
<td>Historical Survey of Music</td>
<td>3</td>
<td>3 Lecture, 1 Activity</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times.</td>
<td>Introduces music history and literature of western culture from Renaissance through the present day, including important composers, masterworks and stylistic trends. Score reading, listening, and introduction to research tools. This course may be taught in a Distance-Learning Format.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC.</td>
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<tr>
<td>MUS 85A-Z</td>
<td>Studies in Music</td>
<td>1 - 3</td>
<td>1½ Lecture, ½ Laboratory</td>
<td>Eligibility for ENGL 100 and READ 100.</td>
<td>May be taken 4 times.</td>
<td>Specialized study of particular topics in Music. The specific course content will be described in the Schedule of Classes.</td>
<td>Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.</td>
</tr>
</tbody>
</table>
MUS 200
**Freeing the Natural Voice**
1 unit; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken 2 times.
Beginning voice production for singing and speaking. Aims to develop free, flexible tone quality, to perfect interpretive and performance skills, to overcome nervousness and self-consciousness. Prepares students for participation in more advanced course work in the Performing Arts curriculum.

MUS 250
**Music Laboratory**
½ unit; 1 hour Laboratory
Repeatability: May be taken 4 times.
A supervised audio/video/computer lab class relating to other Music course curriculum. Designed to increase student skills and concepts. Each 1/2 unit lab section requires 16 hours of study. Credit/no credit only. Enrollment is permitted through the twelfth week of instruction.

MUS 534
**Cabrillo Cantata Chorus For Seniors**
0 units; 3 hours Lecture, 2 hours Activity.
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of choral music, emphasizing cantatas and seasonal music. Designed for senior citizens.

MUS 539
**Westside Community Choir for Seniors**
0 units; 3 hours Lecture, 1 hour Activity.
Repeatability: May be repeated.
Explores the literatures of folk, gospel, African, South American and Spirituals. For experienced and inexperienced singers; designed for senior citizens.

MUS 546
**Jazz Ensemble for Seniors**
0 units; 3 hours Lecture, 2 hours Activity.
Recommended Preparation: Ability to play an instrument from the traditional jazz genre.
Repeatability: May be repeated.
A program for participating in the rehearsal and performance of literature arranged for jazz ensemble, designed for senior citizens.

MUS 548
**Concert Band For Seniors**
0 units; 3 hours Lecture, 1 hour Activity.
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of Renaissance, baroque, romantic, and classical music and the stylistic demands of these periods. Students must have the ability to read music at sight, play a brass, wind or percussion instrument at college level proficiency. Designed for senior citizens.

MUS 549
**College Symphonic Winds For Seniors**
0 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of wind literature. Students must have the ability to read music at sight, play a brass, wind or percussion instrument at college level proficiency. Designed for senior citizens.

MUS 555
**Cabrillo Orchestra For Seniors**
0 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of standard orchestral literature; designed for senior citizens.

MUS 558
**Cabrillo Symphonic Orchestra For Seniors**
0 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of orchestral literature from the Baroque through Contemporary periods. Designed for senior citizens.

MUS 561
**Cabrillo Symphonic Chorus For Seniors**
0 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of choral literature. Designed for senior citizens. May be repeated.

MUS 563
**Cantiamo Cabrillo for Seniors**
0 units; 3 hours Lecture, 2 hours Activity.
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of vocal chamber ensemble performing literature from the Renaissance to the modern era including opera scenes. Designed for senior citizens. Students must audition. Audition includes sight reading, ear-training, demonstration of language skills.

MUS 564
**Cabrillo Women's Choir for Seniors**
0 units; 3 hours Lecture, 1 hour Activity.
Repeatability: May be repeated.
A program for participation in the rehearsal and performance of choral music arranged for women’s voices. Designed for senior citizens.
NURSING

Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Tom McKay, Director of Allied Health
Dorothy Nunn, Program Chair, (831) 479-6130
Nursing Education Department Office, Room 1550,
(831) 479-6280
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
For more information: http://www.cabrillo.edu

Nursing Occupational Program:

Associate Degree Nursing Program

Students are admitted to the Associate Degree Nursing (ADN) Program in August or February of each year. Theory courses, practice skills labs and clinical experiences are coordinated to enhance the student’s learning. Students are eligible to write the National Council Licensure Examination for Registered Nurses (NCLEX-RN) at the completion of all required courses. Due to the intense nature of the Associate Degree Nursing Program, it is advisable to complete as many of the general education requirements as possible before entering.

How To Apply

Admission to the nursing program requires a separate and additional process to the general college admission. Nursing program information and application forms are available in the Nursing Education Department Office (Room 1550) and on the website (www.cabrillo.edu/academics/nursing). General college application materials are available in the Admissions and Records Office, Enrollment Services Center, Building 100, (831) 479-6201; online (www.cabrillo.edu) or by mailing a written request for the application to Cabrillo College Admissions and Records, 6500 Soquel Drive, Aptos, CA 95003.

Read all material in the application packet and the appropriate sections of the Cabrillo College Catalog about the associate degree of nursing program, academic regulations, attendance, and graduation requirements. Return the completed nursing application forms to the Nursing Education Department by certified mail. You must include two sets of official transcripts from all colleges attended (including Cabrillo College transcripts).

Applications will not be considered complete if prerequisites are in progress and/or the student’s files are incomplete. Students are responsible for submitting a complete application to the Nursing Department Education office, which must be sent by certified mail. It is the responsibility of the student to inform the Nursing Education Department of any change in address or telephone number.

Process of Application

Students will be selected according to the certified mail postmark date when a completed application is filed in the Nursing Education Department office.

A complete application includes:

- Nursing application form,
- Two sets of official, sealed college transcripts from all colleges attended (including Cabrillo College) showing completion of all prerequisites,
- A high school transcript is only required if a high school course will be used to meet a nursing prerequisite.

All prerequisites and nursing courses must be completed with a grade of “C” (2.0 GPA) or better, except BIO 5 and BIO 6. These courses must be completed with a combined GPA of 2.5 or better.

ASSOCIATE IN SCIENCE DEGREE IN NURSING

Prerequisites

<table>
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<tr>
<th>Units</th>
<th>Core Courses</th>
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<td>N 15-N 45</td>
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<td>N 16-N 26</td>
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<td>1</td>
<td>N 17-N 27</td>
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<td>N 48</td>
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** Additional Graduation Requirements

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<th>Units</th>
<th>Core Courses</th>
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<td>COMM 2</td>
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<td>PSYCH 1</td>
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<td>SOC 2</td>
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<td>OR</td>
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<td>3</td>
<td>ANTHR 2</td>
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</tbody>
</table>

**Please note that the above courses may also be used to satisfy appropriate general education areas.

General Education

Nursing students are exempt from the 31 unit Area E requirement (Lifelong Understanding & Self-Development) on the 21 unit A.S. general education pattern. As such, this A.S. Degree requires completion of an 18-unit general education pattern (see Cabrillo College Catalog under Associate in Science Degree or the A.S. Degree worksheets available in the Counseling Division or on the Transfer and Articulation website at www.cabrillo.edu.) Completing a U.S. History or U.S. Political Science course and a Humanities course, in addition to the above Prerequisites and Graduation Requirements, will complete the A.S. Degree general education pattern for nursing students.
A Bachelor of Science/Bachelor of Arts Degree from a regionally accredited college or university will satisfy all general education and competency requirements for Cabrillo’s non-transfer A.A. and A.S. Degrees, with the exception of the multicultural requirement and program specific graduation requirements.

Math Competency Requirement
The A.S. Degree Mathematics Requirement may be met by successful completion of elementary algebra or equivalent or a higher-level mathematics course with a grade of ‘C’ or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

Multicultural Requirement
An approved multicultural course is required for graduation. This course may be double counted with general education or other program graduation requirements. Courses taken at other regionally accredited colleges can be used when approved by a Cabrillo counselor.

Security Screening
To comply with state and local regulations for health care providers, students enrolled in the Cabrillo College Nursing program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Center before entering the program. Students are also required to complete criminal background checks, and may be required to undergo fingerprinting.

Associate in Science Degree in Nursing
General Education + Prerequisites .......................... 30
Core Courses .................................................. 40
Nursing Electives: not required for Nursing Degree
ALH 101 Review of Anatomy and Physiology ............. 2
N 105 Role Transition ....................................... 1
N 109 Nursing Skills Practice Lab ......................... 1/4-8
N 199C Cooperative Work Experience .................... 1-4
N 103 Pharmacology in the Clinical Setting ............ 2
Total for A.S. Degree in Nursing ........................ 70

RN Transfer/LVN Students
RN transfer students and LVNs who desire admission to and/or advanced placement in the Cabrillo College Associate Degree Nursing program must meet the program prerequisites. Students are accepted on a space available basis. LVNs can enter the second year of the RN program. Contact the Nursing Education Department Office for details.

Thirty-Unit Option
Any student with a current LVN license may apply for the 30-unit option program. The 30-unit option plan provides the necessary course work required to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Completion of the program does not constitute graduation from the Cabrillo College Nursing Program nor does it make students eligible for the Associate Degree in Nursing. Licensure is limited to California when taking the 30-unit option. Contact the Nursing Education Department Office for details.

Pre-Nursing Transfer Information
Transfer students have three sets of requirements to consider for successful transfer to UC, CSU and most private institutions. They are:
1. admission requirements to the specific university,
2. general education requirements at the specific university, and
3. lower division preparation in the major (courses needed to be admissible to the major.)
To ensure that you understand and include all of the above in your educational plan, it is essential to meet with a counselor early in your attendance at Cabrillo College. Information on equivalencies for general education and major requirements at UC and CSU are available at www.assisst.org.

Course Units
BIO 4 Human Anatomy .................................. 4
BIO 5 Human Physiology ................................ 4
BIO 6 Microbiology ....................................... 4
CAHM 20 Nutrition ....................................... 3
CHEM 30AB Chemistry for Health Occupations .... 8
OR
CHEM 32* Chemistry for the Allied Health Major ... 5
COMM 1 Public Speaking .................................. 3
ENGL 1A College Composition ........................ 3
ENGL 2 Composition and Critical Thinking .......... 3
MATH 12 Elementary Statistics ......................... 4
PSYCH 1 General Psychology ............................ 3
Consult appropriate catalog for specific requirements.
*CHEM 32 is a one-semester alternative that satisfies the CHEM 30A/30B two-semester sequence required for students transferring to some 4-year Nursing Programs. Please see a counselor or check www.assisst.org for more information. CHEM 32 also satisfies the prerequisite requirement for BIO 5 and BIO 6.

Nursing Courses

N 14 Foundations of Nursing Practice: Theory I
5 units; 5 hours Lecture
Prerequisite: Admission to Associate Degree Nursing Program.
Completion of ENGL 1A or ENGL 1 AMC, and BIO 4. Completion of BIO 5 and BIO 6 with a combined GPA of 2.1 or better.
Corequisite: N15, N16, N17.
Recommended Preparation: All sciences completed within last five years.
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisites. If one course is dropped, or the student fails or receives a no credit grade, all co-requisites must be repeated.
Develops knowledge base needed to provide beginning nursing care to clients in perinatal and medical/surgical settings, introducing the nursing process and the Neuman Systems Model. Includes prevention, treatment and restoration of health for clients with common health problems.
Transfer Credit: Transfers to CSU.
N 25
Clinical Skills and Nursing Practicum II
4 units; 12 hours Laboratory
Prerequisite: N14, N15, N16, N17.
Corequisite: N24, N26, N27
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisites. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. Only one semester in the nursing program may be repeated.
Utilizes the nursing process and the Neuman Systems Model; student provides intermediate nursing care to clients with common acute and chronic health concerns in the pediatric and medical/surgical setting, with an emphasis on prevention, treatment and restoration of health.
Transfer Credit: Transfers to CSU.

N 26
Advanced Nursing Skills and Medications Laboratory II
½ unit; ½ hour Laboratory
Prerequisite: N14, N15, N16, N17.
Corequisite: N24, N25, N27. Exception: LVNs requesting admission with advanced standing to ADN program may take this course without corequisites
Recommended Preparation: All sciences completed within last five years.
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisites. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. Only one semester in the nursing program may be repeated.
Provides laboratory application of classroom theory for selected advanced nursing skills.
Transfer Credit: Transfers to CSU.

N 27
Pharmacology B
½ unit; ½ hour Lecture
Prerequisite: N14, N15, N16, N17.
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisites. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated.
Develops theoretical knowledge of drug therapy to client care.
Transfer Credit: Transfers to CSU.

N 34
Nursing in Wellness and Illness: Theory III
5 units; 5 hours Lecture
Prerequisite: N24, N25, N26, N27.
Corequisite: N35
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisites. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. Only one semester in the nursing program may be repeated.
Expands the knowledge base needed to provide nursing care to clients with moderately complex health problems in medical-surgical, geriatric and community settings, utilizing the nursing process and the Neuman Systems Model.
Transfer Credit: Transfers to CSU.
N 35
Clinical Practicum and Nursing Care
Management III
5 units; 15 hours Laboratory
Prerequisite: N24, N25, N26, N27.
Corequisite: N34.
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisites. If one course is dropped or the student fails or receives a no-credit grade, all co-requisites must be repeated. Only one semester of the nursing program may be repeated.
Applies the nursing process and the Neuman Systems Model; student provides safe, appropriate nursing care to clients with moderately complex acute and chronic health problems in geriatric, medical-surgical, and community settings.
Transfer Credit: Transfers to CSU.

N 44
Nursing in Wellness and Illness: Theory IV
3 units; 3 hours Lecture
Prerequisite: N34, N35.
Corequisite: N45.
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisite. If one course is dropped, or the student fails or receives a no credit grade, all co-requisites must be repeated. Only one semester in the nursing program may be repeated.
Expands the knowledge base needed to provide nursing care to clients and client systems with complex psychosocial and physiological health problems in a variety of psychiatric and medical-surgical settings, utilizing the nursing process and the Neuman Systems Model. Develops leadership and management principles.
Transfer Credit: Transfers to CSU.

N 45
Clinical Practicum and Nursing Care
Management IV
3½ units; 10½ hours Laboratory
Prerequisite: N34, N35.
Corequisite: N44.
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisite. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated. Only one semester in the nursing program may be repeated.
Applies the nursing process and the Neuman Systems Model by providing comprehensive nursing care to clients with complex acute and chronic health problems in medical-surgical and psychiatric settings; emphasis is on the use of leadership skills in managing groups of clients in the medical surgical setting.
Transfer Credit: Transfers to CSU.

N 48
Clinical Nursing Preceptorship
2½ units; 7½ hours Laboratory
Prerequisite: N44, N45.
Repeatability: May be taken 2 times. May not be repeated if a previous semester in the nursing program has been repeated.
Applies the nursing process and the Neuman Systems model utilizing leadership skills and providing comprehensive care and management for a group of clients in a medical-surgical or specialty setting, under the direct supervision of a preceptor, an experienced staff nurse.
Transfer Credit: Transfers to CSU.

N 94
Critical Thinking for Nurses Seminar IV
1 unit; 1 hour Lecture
Prerequisite: Completion of N63, N83, N93 with a grade of "C" or better.
Corequisite: Concurrent enrollment in N64 and N84.
Repeatability: May be taken 2 times. Course must be taken concurrently with co-requisites. If one course is dropped or the student fails or receives a no credit grade, all co-requisites must be repeated.
Application of critical thinking skills in relating theoretical principles to clinical practice using a scenario approach. Emphasis is on the application of leadership principles in the management and provision of nursing care. For patients and families with psychiatric diagnoses, the emphasis is on the application of the nursing process for acute and chronic problems.
Transfer Credit: Transfers to CSU.

N 103
Pharmacology in the Clinical Setting
2 units; 2 hours Lecture
Prerequisite: N27 or equivalent or RN or LVN license.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies pharmacokinetic and pharmacodynamic principles to selected patient care situations. Designed for the advanced AD nursing student, or licensed RN or LVN, with beginning knowledge of pharmacology.

N 105
Role Transition
1 unit; 1 hour Lecture, 1 hour Laboratory
Prerequisite: LVN. All nursing prerequisites must be completed.
Repeatability: May be taken 2 times.
This course is designed to facilitate role transition for the Licensed Vocational Nurse seeking to upgrade to Registered Nurse licensure. Emphasis is placed on professional practice through use of the nursing process. The course covers standards of nursing care, critical thinking skills, and application of the nursing process using the Roy adaptation model to assist the student in transition from dependent to independent practice.
**N 109**

**Nursing Skills Practice Lab**

½ - 2 units; 1½ hours Directed study.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 4 times.

Designed for nursing students to provide resources for independent study in nursing skills lab.

**OCEANOGRAPHY**

**Natural and Applied Sciences Division**

Wanda Garner, Division Dean
Division Office, Room 701
David Schwartz, Program Chair, (831) 479-6495
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

**Oceanography Courses**

**OCEAN 10**

**Introduction to Oceanography**

4 units; 3 hours Lecture, 3 hours Laboratory

Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

A lecture-demonstration course presenting some of the more important phenomena in oceanography; geological, chemical, physical and biological relationships. This course may be taught in a Distance-Learning Format.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**OCEAN 180S**

**Applied Marine Science and Technology**

1 unit; 1 hour Other Independent Study

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Applied Marine Science and Technology is a hands on course where students will gain ’at sea experience’ as well as explore careers and educational needs required to enter the broad field of marine technology. Research and study will be conducted in the classroom, at the library and using the World Wide Web. In addition, students will go out to sea onboard the Team O’Neill Catamaran and study shipboard operations, seawater chemistry, marine navigation using Global Positioning Systems (GPS) and hand-held compasses, and marine ecology and plankton. Students will create a research report describing changes and quality of seawater chemistry and plankton taxonomy of the northern part of Monterey Bay.

**PHILOSOPHY**

**Human Arts and Social Sciences Division**

Nancy A. Brown, Division Dean
Division Office, Room 420

Claudia Close, Program Chair, (831) 479-6141
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

**Information for Philosophy Majors**

Philosophy is concerned with our most fundamental assumptions about human experience. The study of philosophy involves such questions as: What can we know and how do we know it? What criteria should we use to decide whether an action is right or wrong? What makes human life worthwhile? Philosophy is also concerned with the way in which we answer these questions, i.e. with the construction and evaluation of arguments.

Career opportunities: A student with an interest in philosophy would ordinarily transfer to a four-year college or university in order to obtain a Bachelor’s Degree. Such an education would prepare him or her for graduate work in the subject or for certain business and professional schools where a liberal education is required. One of the most noteworthy of these is law, since the philosopher’s training in general argument analysis facilitates consideration of the special kinds of legal argumentation. A person who is interested in teaching philosophy must obtain a Master’s Degree to be employed by a community college, or a Ph.D. in order to teach at the university level.

**MODEL PROGRAM FOR PHILOSOPHY**

The following model program fulfills requirements for the A.A. Degree in Philosophy at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHILO 4</td>
<td>Introduction to Philosophy (*instead of 6 &amp; 7)</td>
<td>3</td>
</tr>
<tr>
<td>PHILO 10</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHILO 12</td>
<td>Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHILO 6*</td>
<td>History of Philosophy: Ancient and Medieval</td>
<td>3</td>
</tr>
<tr>
<td>PHILO 7*</td>
<td>History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>PHILO 10</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHILO 12</td>
<td>Introduction to Logic</td>
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Approved Philosophy Electives for the A.A. Degree:

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<th>Course</th>
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<th>Units</th>
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<tr>
<td>PHILO 4</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 6</td>
<td>History of Philosophy: Ancient and Medieval</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 7</td>
<td>History of Philosophy: Modern</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 8</td>
<td>Philosophy of Religion</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 9</td>
<td>Philosophy of Mind</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 14</td>
<td>Non-Western Philosophical Traditions</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 15</td>
<td>Patterns in Comparative Religions</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 16</td>
<td>Contemporary Moral Issues</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 39A-Z</td>
<td>Philosophical Studies</td>
<td>1-3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHILO 49</td>
<td>Introduction to Critical Thinking</td>
<td>3</td>
<td>Lecture</td>
</tr>
</tbody>
</table>

Associate in Arts Degree in Philosophy:

- General Education: 30 units
- Philosophy Core Courses: 9-12 units
- Approved Electives: 9-12 units
- Other Electives: 9 units

Total for A.A. Degree in Philosophy: 60 units

Philosophy Courses

**PHILO 4**
Introduction to Philosophy
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduction to major philosophical problems including questions regarding the nature of reality, the possibility of knowledge, and the nature of self, with emphasis on politics and ethics.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN PHIL2.

**PHILO 6**
History of Philosophy: Ancient and Medieval
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A survey of ancient and medieval European philosophical thought from the pre-Socratics through such medieval philosophers as Anselm, Abelard, and St. Thomas.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN PHIL8.

**PHILO 7**
History of Philosophy: Modern
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

A survey of philosophical thought, including the Renaissance and modern periods.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN PHIL10.

**PHILO 8**
Philosophy of Religion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Reflective examination and analysis of the meanings and beliefs involved in religion and religious experience.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**PHILO 9**
Philosophy of Mind
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Philosophically analyzes mind/body and personal identity issues, including treatments of artificial intelligence, intentionality, and free will vs. determinism.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**PHILO 10**
Ethics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Problems of good and evil, various systems of ethics. Human conduct in social, economic and political activities examined. May be offered in a Distance-Learning Format.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN PHIL4.

**PHILO 12**
Introduction to Logic
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

An introductory course in symbolic logic including the formalization of ordinary language arguments and tests of deductive validity.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN PHIL6.

**PHILO 14**
Non-Western Philosophical Traditions
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introductory survey of non-western philosophies—especially India, China, Japan—and their relevance to contemporary western experience.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**PHILO 15**
Patterns in Comparative Religions
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Philosophical review and comparison of contemporary religions including both eastern traditions such as Buddhism, Hinduism and Taoism and western traditions such as Judaism, Islam and Christianity. Optional field trips may be offered.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**PHILO 16**
Contemporary Moral Issues
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Philosophical analysis of issues in the areas of social, environmental, technological, biomedical and business ethics. May include topics such as cloning and genetic manipulation, intellectual property rights, famine and affluence, deep ecology, war and violence, gender roles and animal rights.

*Transfer Credit:* Transfers to CSU. Transfers to UC.
PHILO 39A-Z
Philosophy Studies
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times, with different topics and letters.
An intensive study of a particular philosophical concept, issue, movement, or philosopher. Course content will vary with each offering. Critical, analytical written work is the primary means of evaluating student performance in this course.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions:
Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

PHILO 49
Introduction to Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AMC.
Presents techniques for analyzing arguments used in political rhetoric, advertisements, editorials, scientific claims and social commentary. Develops the ability to create and refine written arguments. Topics include inductive and deductive arguments, the validity and consistency of arguments, the relationship between evidence and conclusions, persuasive writing strategies, the concerns of style and audience, and impediments to good reasoning. Satisfies the IGETC Critical Thinking requirement.
Transfer Credit: Transfers to CSU. Transfers to UC.

PHYSICAL EDUCATION

Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Onnie Killefer, Program Chair, (831) 479-6581
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Information for Physical Education Majors
Physical Education is the academic discipline concerned with the art and science of human movement. Physical Education may also be listed as Kinesiology or Human Performance at some campuses. Bachelors and graduate degrees with emphasis in adaptives, athletic training, dance, movement sciences, sports management, teaching and coaching offer numerous career opportunities in public and private sectors.

MODEL PROGRAM FOR PHYSICAL EDUCATION
The following model program fulfills requirements for the A.A. Degree in Physical Education at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assisst.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
<td>4</td>
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<tr>
<td>BIO 5</td>
<td>Human Physiology</td>
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<tr>
<td>PE 9</td>
<td>Introduction to Physical Education</td>
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<td>PE Activity Classes</td>
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Approved Electives

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<th>Units</th>
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<tbody>
<tr>
<td>PE 3</td>
<td>Introduction to College and Intercollegiate Athletics</td>
<td>3</td>
</tr>
<tr>
<td>PE 7</td>
<td>Human Performance and Sports Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>PE 8</td>
<td>Weight Management</td>
<td>2</td>
</tr>
<tr>
<td>PE 10</td>
<td>Introduction to Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>PE 11</td>
<td>Introduction to Disabilities and Adaptive Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PE 12A</td>
<td>First Aid: Responding To Emergencies</td>
<td>3</td>
</tr>
<tr>
<td>PE 12B</td>
<td>Community Cardio Pulmonary Resuscitation</td>
<td>5</td>
</tr>
<tr>
<td>PE 14</td>
<td>Advanced First Aid: Emergency Response</td>
<td>4</td>
</tr>
<tr>
<td>PE 46</td>
<td>Core Performance-Be Your Own Trainer</td>
<td>3½</td>
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<tr>
<td>PE 55G</td>
<td>Yoga-Gyrokinesis®</td>
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Recommended from Related Disciplines

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<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupation</td>
<td>4</td>
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<tr>
<td>MATH Any Area CSU B4 or IGETC Area 2 course</td>
<td>3-4</td>
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<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 20</td>
<td>Nutrition</td>
<td>3</td>
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Associate in Arts Degree in Physical Education

General Education: 30 units
Physical Education Core: 15 units
Approved Electives: 6 units
Related Disciplines: 9 units
Total for A.A. Degree in Physical Education: 60 units

Physical Education Courses

PE 3
Introduction to College and Intercollegiate Athletics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces college requirements, college services, community college eligibility requirements, and NCAA/NAIA transfer regulations for intercollegiate student athletes. Study skills instruction and academic planning included.
Transfer Credit: Transfers to CSU.
PE 7
**Human Performance and Sports Nutrition**
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Explores the science of sports nutrition and how to apply nutrition principles to benefit athletic performance. Diet, hydration, and supplementation needs before, during, and after exercise are evaluated for their effect on optimal performance. This course is designed for both the recreational and competitive athlete.
*Transfer Credit:* Transfers to CSU. Transfers to UC.

PE 8
**Weight Management**
2 units; 1 hour Lecture, 2 hours Activity.
Recommended Preparation: Eligibility for ENGL 100 AND READ 100.
Provides education, instruction, and support in weight management that uses an integrated approach among the disciplines of exercise science, nutrition, and behavioral modification.
*Transfer Credit:* Transfers to CSU. Transfers to UC pending review.

PE 9
**Introduction to Physical Education**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents an overview of physical education as a discipline for students interested in careers in PE or related fields. Topics include career options, professional responsibilities, transfer, current issues, aims, and objectives of physical education.
*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN KINE/PE2.

PE 10
**Introduction to Athletic Training**
3 units; 3 hours Lecture
Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100.
Introduces the profession of athletic training including recognition, initial care, rehabilitation, and taping techniques of common athletic injuries.
*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN KINE/PE4.

PE 11
**Introduction to Disabilities and Adaptive Physical Education**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides practical experience and formal training for students who are interested in pursuing a career in physical education, adaptive physical education, therapeutic recreation, or other areas that involve working with the physically limited. Includes teaching techniques, factors limiting motor performance and information regarding various disabilities.
*Transfer Credit:* Transfers to CSU.

PE 11L
**Introduction to Disabilities & Adaptive PE: Field Work**
1 - 2 units; 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Apply skills and knowledge after completion of or concurrent enrollment in PE 11 to continue practice as therapeutic aide.
*Transfer Credit:* Transfers to CSU.

PE 12A
**First Aid: Responding to Emergencies**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Provides certification in American Red Cross “Responding to Emergencies and Community CPR” for students who want training in accident prevention and treatment of the injured.
*Transfer Credit:* Transfers to CSU. Transfers to UC with limits: PE 12A & B combined—maximum credit, 1 course. CAN KINE/PE8.

PE 12B
**Community Cardio Pulmonary Resuscitation**
½ units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Provides certification in American Red Cross Community CPR. Provides training care for the adult, child, and infant victim.
*Transfer Credit:* Transfers to CSU. Transfers to UC with limits: PE 12A & B—maximum credit—1 course.

PE 14
**Advanced First Aid: Emergency Response**
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Provides American Red Cross certification in Emergency Response and CPR for the Professional Rescuer. Provides the knowledge and skills in emergency care needed by peace officers, firefighters, emergency medical technicians, and other special interest groups. Meets the CPR prerequisite for admission to the EMT program through Emergency Medical Services. Includes mandated airway management skills module.
*Transfer Credit:* Transfers to CSU.

PE 20
**Swimming**
½ - 3 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Emphasizes development of aquatic skills and conditioning appropriate for the non-swimmer, beginning swimmer, or intermediate swimmer. Instruction will include water adaptation, basic strokes, watermanship skills, deep water skills, competitive strokes and techniques, and conditioning activities.
*Transfer Credit:* Transfers to CSU. Transfers to UC: Any or all PE activity courses combined: maximum credit—4 units.
PE 21
Swim Fitness
½ - 3 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Improves physical fitness using competitive swim strokes. Stroke technique, competitive methods, aerobic and anaerobic swim sets are included. Workouts vary to accommodate different ability levels. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 21AR
Water Aerobics
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides cardiovascular conditioning, muscle strengthening, and flexibility through non-swimming water exercise emphasizing low impact on joints. Can be used for rehabilitation and as a cross-training activity for athletes. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 23
Water Polo
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction on the individual offensive and defensive skills and team strategies of water polo. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 24
Lifeguard Training
2 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Ability to swim 500 yards continuously, demonstrating stroke proficiency with crawl and breaststroke. Ability to surface dive to a depth of 7’ and recover a 10-pound brick; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Thereafter, may be audited.
Provides American Red Cross certification in Lifeguarding, First Aid, and CPR. Provides information and training for lifeguards in pool safety and pool management. Transfer Credit: Transfers to CSU. Transfers to UC.

PE 31
Golf
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction in the development of basic golf swing techniques including chipping, bunker shots, uneven lie positions, swing correction techniques, putting, elements of golf course management, rules, and golf etiquette. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 32B
Golf Course Play
½ - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Develops advanced golf skills through instruction at the range and practice on local golf courses. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 33
Gymnastics
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction in men’s and women’s artistic gymnastics including exercises on the balance beam, parallel bars, vault, floor, rings, horizontal bar, and pommel horse. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 36
Tennis
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction in the development of stroke production, footwork, strategy, rules, and etiquette for singles and doubles play. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 37
Hiking
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Introduces concepts of safe hiking using the Santa Cruz county parks, trails, and surrounding areas and includes local history, flora and fauna, emergency procedures, safety rules, health issues, and environmental considerations. Hikes will be fun and challenging, averaging 5-8 miles on moderate to steep terrain and require a 20-minute per mile pace. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 39
Beginning Self-Defense for Women
2 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Provides basic self defense skills and psychological techniques for confronting threatening situations. Includes information about the nature and incidence of assaults. Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Activity</th>
<th>Recommended Preparation</th>
<th>Repeatability</th>
<th>Description</th>
<th>Transfer Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 40</td>
<td>Baseball</td>
<td>½ - 2</td>
<td>1 hour</td>
<td>Eligibility for ENGL 100 and READ 100. May be taken 4 times. Thereafter, may be audited. Provides instruction in individual offensive and defensive skills and team strategies of baseball.</td>
<td>May be taken 4 times. Thereafter, may be audited. Provides instruction in offensive and defensive skills and team strategies of baseball.</td>
<td>Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.</td>
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</tr>
<tr>
<td>PE 41</td>
<td>Basketball</td>
<td>½ - 2</td>
<td>1 hour</td>
<td>Eligibility for ENGL 100 and READ 100. May be taken 4 times. Thereafter, may be audited. Provides instruction in offensive and defensive skills and team strategies of basketball.</td>
<td>May be taken 4 times. Thereafter, may be audited. Provides instruction on the individual and team skills and strategies of volleyball.</td>
<td>Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.</td>
<td></td>
</tr>
<tr>
<td>PE 42</td>
<td>Football</td>
<td>½ - 2</td>
<td>1 hour</td>
<td>Eligibility for ENGL 100 and READ 100. May be taken 4 times. Thereafter, may be audited. Provides instruction in individual and team soccer skills and strategies.</td>
<td>May be taken 4 times. Thereafter, may be audited. Provides education and instruction in an approach to fitness using functional and core training.</td>
<td>Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.</td>
<td></td>
</tr>
<tr>
<td>PE 43</td>
<td>Soccer</td>
<td>½ - 2</td>
<td>1 hour</td>
<td>Eligibility for ENGL 100 and READ 100. May be taken 4 times. Thereafter, may be audited. Provides instruction in individual and team soccer skills and strategies.</td>
<td>May be taken 4 times. Thereafter, may be audited. Provides a setting to improve cardiovascular fitness, muscular strength, flexibility, and specific sport movement patterns to minimize injury potential during competitive seasons for male and female intercollegiate athletes.</td>
<td>Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.</td>
<td></td>
</tr>
<tr>
<td>PE 43F</td>
<td>Indoor Soccer–Futsal</td>
<td>½ - 2</td>
<td>1 hour</td>
<td>Eligibility for ENGL 100 and READ 100. May be taken 4 times. Thereafter, may be audited. Provides instruction in individual and team indoor soccer/futsal skills and strategies.</td>
<td>May be taken 4 times. Thereafter, may be audited. Provides cardiovascular conditioning, strength training, flexibility exercises, and instruction in concepts relative to physical fitness.</td>
<td>Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.</td>
<td></td>
</tr>
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</table>
PE 49
Ultimate Frisbee
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction in throwing, catching, and passing skills of ultimate frisbee and their application to team play. Class covers offensive and defensive patterns and team strategies.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 51A
Aerobic Fitness—Jogging/Walking
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction and opportunities for cardiovascular conditioning, flexibility, and muscular endurance to improve fitness level.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 51C
Aerobic Fitness—Low Impact
½ - 3 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides cardiovascular conditioning, flexibility, strength, and endurance training performed to music. Special attention given to proper motion, placement of feet, lower back positions. Low impact with step option available, but not required for participation.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 53
Weight Training
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction on the biomechanics of strength training, muscle trainability, and training principles using both machines and free weights.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 54
Power Training
½ - 3 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; PE 53 or equivalent experience.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction on the biomechanics of power training and neuromuscular adaptation.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 55
Hatha Yoga
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Provides instruction on asanas (postures) with attention to breath awareness and detail of postural alignment of the body to develop strength, endurance, flexibility, balance, and to reduce stress. Develops awareness and consciousness in the physical body to establish the mind/body connection.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 55G
Yoga–Gyrokinesis®
½ - 2 units; 1 hour Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Thereafter, may be audited.
Re-educates and invigorates the body to move with fluidity, relaxation, and power by rhythmic exercise.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: Any or all PE activity courses combined: maximum credit–4 units.

PE 79A-Z
Special Topics in Physical Education
½ - 3 units; ½ hour Lecture, 1½ hours Activity.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides instruction in selected physical education topics and areas of special interest including but not limited to such topics as Women’s Self Defense-Weapons, Yoga, Sports Officiating, and current trends in fitness.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

PHYSICS
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Joseph McCullough, Program Chair, (831) 479-6521
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs
Information for Physics Majors

Physics is the study of our natural surroundings, from the tiniest elementary particle to the entire universe. Physics provides a broad range of knowledge and powerful skills which are useful in practically every discipline. The program at Cabrillo emphasizes topics that affect our everyday lives: forces, motion, gravity, waves, sound, electricity, magnetism, light, and heat. The excitement of atoms, nuclei, relativity, and the cosmos is also included.

A physics major degree generally transfers to a four-year institution to complete a bachelor’s degree. Physics graduates at the bachelor’s level are qualified for a variety of technical positions with government or industry, and they are also well prepared to enter a graduate program in any other science or in engineering. Physics majors are welcomed into professional programs such as law, business, or medicine. Teaching at the high school or two-year college level is an option if a master’s degree is obtained. A physicist generally obtains the Ph.D. Degree, which may lead to experimental or theoretical research and/or teaching at the university level or basic research in government or industry.

Nearly every four-year college and university offers a physics major. Requirements vary from campus to campus. See a counselor and consult catalogs for specific information.

High School Preparation: Physics, chemistry, four years of college preparatory mathematics. Cabrillo offers courses that are equivalent to this preparation. The major will require more than two years at the community college level if high school preparation is not complete.

MODEL PROGRAM FOR PHYSICS

The following model program fulfills requirements for the A.S./A.A. Degree in physics at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
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<tr>
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<tbody>
<tr>
<td>MATH 5ABC</td>
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<td>MATH 6</td>
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<tr>
<td>MATH 7</td>
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<tr>
<td>PHYS 4ABCD</td>
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Approved Electives

<table>
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<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTRO 11</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1AB</td>
<td>10</td>
</tr>
<tr>
<td>CS 11</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td>4</td>
</tr>
<tr>
<td>CS 19</td>
<td>4</td>
</tr>
</tbody>
</table>

Associate in Science Degree in Physics

| General Education | 21 |
| Core Courses      | 36 |
| Approved Electives| 3  |
| Total for A.S. Degree in Physics | 60 |

Associate in Arts Degree in Physics

| General Education | 30 |
| Core Courses      | 30 |
| Total for A.A. Degree in Physics | 60 |

Physics Courses

Note: UC will not grant credit for PHYS 10 and 11 if taken after PHYS 2A or 4A; if PHYS 10 and 11 are combined, only one course will transfer to UC. PHYS 2AB combined with 4ABC maximum credit, one series.

PHYS 2A
General Physics

4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 4 or equivalent knowledge.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers mechanics, heat and sound primarily for life science students. Fall semester only.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN PHYS2.

PHYS 2B
General Physics

4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: PHYS 2A.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers electromagnetism, optics, relativity, and the atom primarily for life science students. Spring semester only.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN PHYS4.

PHYS 4A
Physics for Scientists and Engineers

5 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: MATH 5A; MATH 5B or concurrent enrollment; PHYS 11 or high school physics with minimum grade “B”.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers mechanics, fluids, and waves for scientists and engineers.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN PHYS8.

PHYS 4B
Physics for Scientists and Engineers

5 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: PHYS 4A; MATH 5C or concurrent enrollment.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers electricity and magnetism for scientists and engineers. Fall semester only.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN PHYS12.

PHYS 4C
Physics for Scientists and Engineers

5 units; 4 hours Lecture, 5 hours Laboratory
Prerequisite: PHYS 4A; MATH 5C or concurrent enrollment.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers thermodynamics, optics, and introduction to quantum physics for scientists and engineers. Spring semester only.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN PHYS14.
PHYS 4D  
**Modern Physics**  
3 units; 3 hours Lecture  
Prerequisite: PHYS 4C.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
COVERS RELATIVITY, QUANTUM MECHANICS AND NUCLEAR PHYSICS FOR SCIENTISTS AND ENGINEERS.  
**Transfer Credit:** Transfers to CSU. Transfers to UC.

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PHYS 10  
**Introduction to Physics**  
3 units; 3 hours Lecture  
Prerequisite: MATH 154.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
COVERS CONCEPTUAL TOPICS IN PHYSICS FOR THE NON-SCIENCE MAJOR (PHYS 10L lab optional).  
**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

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PHYS 10L  
**Introduction to Physics Lab**  
1 unit; 3 hours Laboratory  
Prerequisite: PHYS 10 or concurrent enrollment.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
PRESENTS A HANDS-ON EXPLORATION OF TOPICS IN PHYSICS FOR THE NON-SCIENCE MAJOR.  
**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

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PHYS 11  
**Elementary Physics**  
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: MATH 4 or equivalent knowledge or Trigonometry.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
PRESENTS AN INTRODUCTION TO MOTION, FORCE, HEAT, ELECTROMAGNETISM, LIGHT, SOUND, ATOMS AND NUCLEI DESIGNED PRIMARILY TO PREPARE STUDENTS FOR THE PHYS 4 SEQUENCE.  
**Transfer Credit:** Transfers to CSU. Transfers to UC with limits: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

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PHYS 12  
**Introduction to Modern Physics**  
3 units; 3 hours Lecture  
Prerequisite: MATH 154.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
COVERS CONCEPTUAL TOPICS IN MODERN PHYSICS FOR THE NON-SCIENCE MAJOR.  
EXPLORES THE NATURE AND MEANING OF SPECIAL AND GENERAL RELATIVITY, QUANTUM PHYSICS, THE ATOM AND NUCLEI, AND ELEMENTARY PARTICLES.  
**Transfer Credit:** Transfers to CSU. Transfers to UC: PHYS 10, 10L, 11 & 12 combined: maximum credit–4 units No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

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**POLITICAL SCIENCE**

Human Arts and Social Sciences Division  
Nancy A. Brown, Division Dean  
Division Office, Room 420  
Michael Mangin, Program Chair, (831) 479-6227  
Counselor: (831) 479-6225 or (831) 479-6385 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6297 or (831) 479-6348 for more information  
http://www.cabrillo.edu/programs

Information for Political Science Majors

Political Science is the systematic study of politics, political institutions and governmental processes by the application of scientific methods of analysis and critical examination. Political science is concerned with the objectives and ends of politics and the way in which political society should be organized in order to realize those objectives and ends. Courses in political science enable students to study and understand how political and governmental institutions make and implement decisions and the effects those decisions have on individual, group, and societal behavior.

A political science major generally transfers to a four-year institution to complete a B.A. Degree. Political science graduates with B.A. Degrees are qualified for a variety of positions in government and non-governmental institutions; graduates are prepared to enter graduate studies in various disciplines, including political science, law, journalism and business. Teaching at the community college level is an option providing that an M.A. and/or a Ph.D. Degree is obtained. Possession of the Ph.D. could lead to research and teaching at the university level.

MODEL PROGRAM FOR POLITICAL SCIENCE

The following model program fulfills requirements for an A.A. Degree in Political Science at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institutions.

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<tbody>
<tr>
<td>PS 1</td>
<td>Introduction to Government</td>
<td>3</td>
</tr>
<tr>
<td>PS 2</td>
<td>Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>PS 3</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>PS 4</td>
<td>Political Freedom</td>
<td>3</td>
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<tr>
<td>PS 5</td>
<td>American Political Thought</td>
<td>3</td>
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<tbody>
<tr>
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<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2A</td>
<td>World History to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2B</td>
<td>World History: 1500 to Present</td>
<td>3</td>
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<td>HIST 4A</td>
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<td>HIST 4B</td>
<td>Survey of Western Civilization-1648 to Late 20th Century</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16C</td>
<td>History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19A</td>
<td>History of Asia: South and Southeast Asian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19B</td>
<td>Introduction to Chinese History</td>
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<tr>
<td>HIST 19C</td>
<td>Introduction to Japanese History</td>
<td>3</td>
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</tbody>
</table>
Associate in Arts Degree in Political Science

General Education .................................................. 30
Political Science Core Courses .................................... 15
Approved Electives .................................................. 6-9
Other Electives ....................................................... 6-9
Total for A.A. Degree in Political Science ...................... 60

Political Science Courses

PS 1
Introduction to Government
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Surveys the origins and development of the U.S. political system. Topics include basic concepts from political philosophy, constitutional law, institutions of the federal government (Congress, Presidency, Courts) political parties and elections, federalism, public opinion, the media, interest groups, civil liberties and rights, and California politics. Contemporary issues will be presented from a variety of viewpoints. (Satisfies the state requirement for American institutions and California government.) Critical analytical written work is the primary means of evaluating student performance in this course. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN GOVT2.

PS 2
Comparative Government
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines and compares a diverse selection of the world's political and economic systems. The specific selection of country case studies varies, and is selected from Great Britain, Japan, Germany, Russia, China, India, Iraq, Iran, South Africa, and Mexico. Each country case study will focus on the common themes of political history, key institutions, political cultures, political participation, major contemporary political, economic, and social issues, and the impacts of global forces on these political and economic systems. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

PS 3
International Relations
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the political and economic structures and the main actors (states, intergovernmental, and nongovernmental) of the contemporary international system. Topics include major contending perspectives for understanding international relations and an exploration of selected issues and cases in international relations. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

PS 4
Political Freedom
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides an intensive analysis of political freedom from various philosophical, historical, and cultural perspectives. Covers a breadth of political thinking from the Western tradition.
Transfer Credit: Transfers to CSU. Transfers to UC.

PS 5
American Political Thought
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Investigates the influences of political theory on the development of the political system of the United States. Emphasis is placed on concepts such as: democracy, republicanism, liberty and political autonomy as well as how the constitution gives authority to the government while limiting its powers. Readings range from the ancient Greeks to early modern and contemporary writings. Topics include basic concepts from political philosophy; the forms and functions of the institutions of the federal government, and California state politics. (Satisfies the state requirements for American institutions and California government.)
Transfer Credit: Transfers to CSU. Transfers to UC.

PS 39A-Z
Special Topics in Political Science
1-3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Studies particular political issues, movements, and concepts. Course content will vary with each offering.
Transfer Credit: Transfers to CSU. Transfers to UC: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit to this course is contingent upon a review of the course outline and other materials by the UC transfer campus.
### Psychology Courses

#### General Psychology

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
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<td>3 units; 3 hours Lecture; Prerequisite: Eligibility for ENGL 1A /1AMC.</td>
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</table>

#### Research Methods in Psychology

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<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PSYCH 2</td>
<td>Research Methods in Psychology</td>
<td>4</td>
<td>4 units; 3 hours Lecture; Prerequisite: MATH 12 or equivalent; PSYCH 1.</td>
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</table>

#### Introduction to Biological Psychology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 4</td>
<td>Introduction to Biological Psychology</td>
<td>3</td>
<td>3 units; 3 hours Lecture; Prerequisite: PSYCH 1.</td>
</tr>
</tbody>
</table>

### Human Arts and Social Sciences Division

**Nancy A. Brown, Division Dean**

Division Office, Room 420

David Douglass, Program Chair, (831) 479-6374

Counselor: (831) 479-6225 or (831) 479-6348 for appointment

Watsonville Counselor: (831) 477-5134

Call (831) 479-6297 or (831) 479-6348 for more information

http://www.cabrillo.edu/programs

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### Information for Psychology Majors

Psychology is the study of our thinking, feeling and behaving. It is the study of human beings, by far the most complex phenomenon on the planet. Cabrillo College offers a diverse program with several goals: 1) to expose students to the variety of subfields in psychology; 2) to engender knowledge of and appreciation for the spirit and nature of scientific inquiry; 3) to facilitate insight into oneself and increase knowledge of and sensitivity to others; and 4) to introduce students to the basic body of knowledge, thus preparing them for further study in psychology.

Because the field of psychology is broad and diverse, psychologists can and do work in a variety of settings. Most psychologists have a Master’s degree or a Ph.D. This usually requires two to six years of study after a Bachelor’s Degree.

Psychologists may teach, conduct research, perform psychological testing, or do consultation in a variety of settings including hospitals, social service agencies, businesses, industries, colleges, and universities. Applied psychology integrates theory, research, and practice to help people with close relationships, with decision-making, with death and dying, and with other issues. Applied psychology can also produce superior job performance in the human services, education, and many other fields.

**MODEL PROGRAM FOR PSYCHOLOGY**

The following model program fulfills requirements for an A.A. Degree in Psychology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assisst.org. Please see a counselor for advisement for transfer to any four-year institution.

#### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
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#### Choose three of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PSYCH 2</td>
<td>Research Methods in Psychology</td>
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<tr>
<td>PSYCH 4</td>
<td>Introduction to Biological Psychology</td>
<td>3</td>
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<tr>
<td>PSYCH 6</td>
<td>Introduction to Social Psychology</td>
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<tr>
<td>PSYCH 8</td>
<td>Introduction to Developmental Psychology</td>
<td>3</td>
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<tr>
<td>PSYCH 12</td>
<td>Introduction to Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 26</td>
<td>Introduction to Personality Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 31</td>
<td>Introduction to Abnormal Psychology</td>
<td>3</td>
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<td>MATH 12</td>
<td>Elementary Statistics</td>
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#### Approved Electives

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<tr>
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<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 35ABC</td>
<td>Death and Dying</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 37ABC</td>
<td>Values and Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 39ABC</td>
<td>Relationships: Marriage and the Family</td>
<td>3</td>
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</table>

Prospective Psychology majors are encouraged to consult a Psychology instructor regarding recommended elective courses.

**Associate in Arts Degree in Psychology**

<table>
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<th>Division</th>
<th>Requirements</th>
<th>Units</th>
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<tr>
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<tr>
<td>Psychology Core Courses</td>
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<td>12-14</td>
</tr>
<tr>
<td>Approved Electives</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Other Electives</td>
<td></td>
<td>4-6</td>
</tr>
</tbody>
</table>

Total for A.A. Degree in Psychology 60

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### Psychology

**PSYCH 1**

**General Psychology**

<table>
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<tr>
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<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
<td>3 units; 3 hours Lecture; Prerequisite: Eligibility for ENGL 1A /1AMC.</td>
</tr>
</tbody>
</table>

**Recommended Preparation:**

Scientific study of behavior and mental processes, which leads to better understanding of ourselves and other people. Covers basic processes such as perceiving, learning, and remembering. Also introduces theories of personality, abnormal behavior, and child development. Many examples of how psychology can be applied in everyday life.

**Transfer Credit:** Transfers to CSU. Transfers to UC. CAN PSY2.

**PSYCH 2**

**Research Methods in Psychology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 2</td>
<td>Research Methods in Psychology</td>
<td>4</td>
<td>4 units; 3 hours Lecture; Prerequisite: MATH 12 or equivalent; PSYCH 1.</td>
</tr>
</tbody>
</table>

**Recommended Preparation:** ENGL 1A /1AMC.

Scientific methods of investigating behavior and mental processes. Includes topics such as developing a research idea, designing experiments and surveys, doing literature searches, interpreting results, communicating findings to others, and learning the scientific approach to knowledge.

**Transfer Credit:** Transfers to CSU. Transfers to UC. CAN PSY8.

**PSYCH 4**

**Introduction to Biological Psychology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 4</td>
<td>Introduction to Biological Psychology</td>
<td>3</td>
<td>3 units; 3 hours Lecture; Prerequisite: PSYCH 1.</td>
</tr>
</tbody>
</table>

**Recommended Preparation:** ENGL 1A /1AMC.

An advanced consideration of the biological basis of behavior. Emphasis is placed on understanding the structure and function of neurons and the nervous system. Topics include how the brain enables sensation, perception, motivation, emotion, learning, and memory; as well as the effects of various drugs. Also examines the bases of brain malfunction and mental disorders, such as schizophrenia and depression.

**Transfer Credit:** Transfers to CSU. Transfers to UC. CAN PSY10.
PSYCH 6
Introduction to Social Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A /1AMC.
Science of how individuals are influenced by other people, and how that knowledge can help us to deal with social problems. Includes topics such as conformity, prejudice, liking, attitude change, aggression, helping, and group behavior.
Transfer Credit: Transfers to CSU. Transfers to UC.

PSYCH 8
Introduction to Developmental Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A /1AMC.
Science of human development with emphasis on infancy, childhood, and adolescence. Topics include prenatal development, cognitive and emotional development, attachment, aggression, self-concept and gender development, multicultural issues, and theories of how we change.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: PSYCH 8 combined with ECE 31, 32 & 33-maximum credit- 1 course.

PSYCH 12
Introduction to Cognitive Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A /1AMC.
Scientific study of processing information about ourselves and the world around us. Includes topics such as perceiving, remembering, reasoning, problem solving, and decision-making. Examples of how cognitive psychology can be applied to practical problems.
Transfer Credit: Transfers to CSU. Transfers to UC.

PSYCH 20A-Z
Current Topics in Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 4 times.
Study of topics of current importance in one of the major fields of psychology. The particular areas of emphasis will be listed in the Schedule of Classes.
Transfer Credit: Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

PSYCH 26
Introduction to Personality Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A /1AMC.
Description and explanation of individual differences. Provides an overview of major personality theories from Freud to the modern day, and an introduction to contemporary personality research and assessment.
Transfer Credit: Transfers to CSU. Transfers to UC.

PSYCH 31
Introduction to Abnormal Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A /1AMC.
Scientific study of abnormal behavior. Includes explanations of anxiety disorders, depression, schizophrenias and other disorders; and some treatment issues.
Transfer Credit: Transfers to CSU. Transfers to UC.

PSYCH 33
Personal and Social Adjustment
3 units; 3 hours Lecture
Prerequisite: PSYCH 1.
Recommended Preparation: ENGL 1A /1AMC.
Designed to facilitate insight into the self and to explore techniques for personal growth and healthy relationships. Through lectures, growth exercises, and small group interactions, the course makes use of various theories of personality and well-being in an effort to help participants to better understand themselves, improve communication with others, and maintain healthy patterns of behavior.
Transfer Credit: Transfers to CSU. Transfers to UC.

PSYCH 35AB
Death and Dying
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Comprehensive study of dying, death, and bereavement through contemporary, historical, cross-cultural, psychological, and interdisciplinary perspectives. Explores the way in which individual experience and culture influence grief, care of the dying, funeral rites, ethical decision-making in medicine, and the psychosocial understanding of death.
Transfer Credit: Transfers to CSU: Students must take 35ABC (3 units) to receive GE credit. Transfers to UC with conditions: If taken for 3 units(ABC).
**PSYCH 35ABC**  
*Death and Dying*  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Comprehensive study of dying, death, and bereavement through contemporary, historical, cross-cultural, psychological, and interdisciplinary perspectives. Explores the way in which individual experience and culture influence grief, care of the dying, funeral rites, ethical decision-making in medicine, and the psychosocial understanding of death.  
Transfer Credit: Transfers to CSU with conditions: Students must take 35ABC (3 units) to receive GE credit. Transfers to UC with conditions: If taken for 3 units(ABC).

**PSYCH 35C**  
*Death and Dying*  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
In-depth exploration of attitudes toward death, dying, and bereavement including psychosocial development, life-threatening illness, and survivor issues.  
Transfer Credit: Transfers to CSU: Students must take 35ABC (3 units) to receive GE credit. Transfers to UC with conditions: If taken for 3 units(ABC).

**PSYCH 37AB**  
*Values and Decision Making*  
2 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Examines the theory and process of valuing, decision making, and the psychology of critical thinking as applied in both personal and professional contexts, at home and in the workplace. Focuses on how values influence decision making and on ways to identify various alternatives and evaluate the potential consequences of each choice.  
Transfer Credit: Transfers to CSU: Students must take 37ABC (3 units) to receive GE credit at CSU.

**PSYCH 37ABC**  
*Values and Decision Making*  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Examines the theory and process of valuing, decision making, and the psychology of critical thinking as applied in both personal and professional contexts, at home and in the workplace. Focuses on how values influence decision making and on ways to identify various alternatives and evaluate the potential consequences of each choice.  
Transfer Credit: Transfers to CSU: Students must take 37ABC (3 units) to receive GE credit at CSU.

**PSYCH 37C**  
*Values and Decision Making*  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
In-depth study of how unconscious process affects decision making. Discover blocks to acting on goals along with information about prioritizing alternatives consistent with values.  
Transfer Credit: Transfers to CSU: Students must take 37ABC (3 units) to receive GE credit at CSU.

**PSYCH 39AB**  
*Relationships: Marriage and Family*  
2 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Study the function and meaning of relationships from both an academic and practical perspective with emphasis on the psychology of intimate relations. Historical, cultural, and economic perspectives are applied to an exploration of the myths and realities of relationships involving communication, power, roles, gender, sexuality, parenting, and the satisfaction of psychological and social needs.  
Transfer Credit: Transfers to CSU: Students must take 39ABC (3 units) to receive GE credit. Transfers to UC with conditions: If taken for 3 units(ABC). PSYCH 39ABC=CAN FCS12.

**PSYCH 39ABC**  
*Relationships: Marriage and the Family*  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Study the function and meaning of relationships from both an academic and practical perspective with emphasis on the psychology of intimate relations. Historical, cultural, and economic perspectives are applied to an exploration of the myths and realities of relationships involving communication, power, roles, gender, sexuality, parenting, and the satisfaction of psychological and social needs.  
Transfer Credit: Transfers to CSU: Students must take 39ABC (3 units) to receive GE credit. Transfers to UC with conditions: If taken for 3 units(ABC). CAN FCS 12.

**PSYCH 39C**  
*Relationships: Marriage and Family*  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Focuses on relationship communication and conflict resolution patterns by examining how successful communications work and how speakers accomplish their goals in interactions. Highlights distinctions based on gender and culture.  
Transfer Credit: Transfers to CSU: Students must take 39ABC (3 units) to receive GE credit. Transfers to UC with conditions: If taken for 3 units(ABC). PSYCH 39ABC=CAN FCS12.
PSYCH 40  
Field Experience in Psychology  
3 units; 3 hours Field Experience.  
Prerequisite: PSYCH 1.  
Recommended Preparation: ENGL 1A /1AMC.  
Provides an opportunity to work with children, the elderly, or people  
with disabilities and to evaluate the current work practices in a field  
setting. Can help students gain insight into themselves and to clarify their  
vocational interests.  
Transfer Credit: Transfers to CSU. Transfers to UC.  

PUBLIC SAFETY  
Human Arts and Social Sciences Division  
Nancy A. Brown, Division Dean  
Division Office, Room 420  
Harry Bidleman, Director, (831) 479-5042  
Counselor: (831) 479-6225 or (831) 479-6385 for  
appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6468 for more information  
http://www.cabrillo.edu/programs  

Information for Criminal Justice Majors  
The Criminal Justice Program is designed to provide students with the  
basic theoretical knowledge, that will prepare them to transfer to four-  
year institutions in pre-law, law enforcement, or corrections. The pro-  
gram develops a high level of academic, personal, and professional com-  
petence demanded in a wide range of agencies.  

MODEL PROGRAM FOR CRIMINAL JUSTICE  
LAW ENFORCEMENT OPTION  
The following model program fulfills requirements for an A.A. Degree in  
Criminal Justice/Law Enforcement at Cabrillo College. Specific lower  
division major preparation at four-year public institutions in California  
can be found at www.assisst.org. Please see a counselor for advisement  
for transfer to any four-year institution.  

Core Courses  

<table>
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<th>Course</th>
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<td>MATH 12</td>
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<td>BUS 9</td>
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Approved Electives  

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<td>*BUS 9</td>
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</table>

*These courses are not transferable to four-year universities.  
*If not used for a core course.  

Associate in Arts Degree in Criminal Justice/Law Enforcement  
General Education ............................................. 30  
Law Enforcement Core ..................................... 19-20  
Approved Electives ....................................... 3-8  
Electives ..................................................... 2-8  
Total for the A.A. Degree in Criminal Justice/Law Enforcement .......................... 60  

CORRECTIONS OPTION  
Core Courses  

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>OR</td>
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Approved Electives  

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<td>OR</td>
<td></td>
</tr>
<tr>
<td>*BUS 9</td>
<td>3</td>
</tr>
</tbody>
</table>

*If not used as a core course  
+These courses are not transferable to four-year universities.  

Associate in Arts Degree in Criminal Justice/Corrections  
General Education ............................................. 30  
Corrections Core ............................................ 21-22  
Approved Electives ....................................... 3-8  
Electives (any course 1-99) ................................ 0-6  
Total for A.A. Degree in Criminal Justice/Corrections ........................................ 60
Public Safety Occupational Programs

Associate in Science Degree in Criminal Justice

The Criminal Justice Program is designed to provide students with basic knowledge and skills for employment in the criminal justice field. The program also offers certificated programs designed to meet the State of California training requirements for law enforcement reserve officers. In addition, the program provides continuing education for persons already employed in the justice system as peace officers, counselors, attorneys, and private security officers.

Law Enforcement Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>CJ 2</td>
<td>Criminal Law 3</td>
</tr>
<tr>
<td>CJ 3</td>
<td>Criminal Evidence 3</td>
</tr>
<tr>
<td>CJ 4</td>
<td>Criminal Courts and Procedures 3</td>
</tr>
<tr>
<td>CJ 5</td>
<td>The Police Role in the Community 3</td>
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<tr>
<td>CJ 6</td>
<td>Criminal Investigation 4</td>
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Approved Electives

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<tr>
<td>CJ 7</td>
<td>Criminal Justice Written Communications 3</td>
</tr>
<tr>
<td>CJ 9</td>
<td>Juvenile Procedures 3</td>
</tr>
<tr>
<td>CJ 12</td>
<td>Contemporary Issues in the Justice System 3</td>
</tr>
<tr>
<td>CJ 20</td>
<td>Criminal Behavior 3</td>
</tr>
<tr>
<td>CJ 41</td>
<td>Narcotics Identification and Enforcement 3</td>
</tr>
<tr>
<td><strong>CJ 110</strong></td>
<td>Forensic Investigation 3</td>
</tr>
<tr>
<td><strong>CJ 111</strong></td>
<td>Self Defense for Law Enforcement 3</td>
</tr>
<tr>
<td><strong>CJ 155D</strong></td>
<td>Law Enforcement Skills and Knowledge Modules 4</td>
</tr>
</tbody>
</table>

**These courses are not transferable to four-year universities.

Associate in Science Degree in Law Enforcement

General Education ......................................................... 21
Law Enforcement Core Courses ....................................... 19
Approved Electives ...................................................... 11
Electives (Any course 1-199) ........................................... 9
Total for A.S. Degree in Law Enforcement .......................... 60

Corrections Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1</td>
<td>Introduction to Criminal Justice 3</td>
</tr>
<tr>
<td>CJ 2</td>
<td>Criminal Law 3</td>
</tr>
<tr>
<td>CJ 3</td>
<td>Criminal Evidence 3</td>
</tr>
<tr>
<td>CJ 4</td>
<td>Criminal Courts and Procedures 3</td>
</tr>
<tr>
<td>CJ 5</td>
<td>The Police Role in the Community 3</td>
</tr>
<tr>
<td>CJ 19</td>
<td>Introduction to Corrections 3</td>
</tr>
<tr>
<td>CJ 20</td>
<td>Criminal Behavior 3</td>
</tr>
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</table>

Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 6</td>
<td>Criminal Investigation 4</td>
</tr>
<tr>
<td>CJ 9</td>
<td>Juvenile Procedures 3</td>
</tr>
<tr>
<td>CJ 12</td>
<td>Contemporary Issues in the Justice System 3</td>
</tr>
<tr>
<td>CJ 41</td>
<td>Narcotics Identification and Enforcement 3</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>CJ 111</strong></td>
<td>Self Defense for Law Enforcement 3</td>
</tr>
<tr>
<td><strong>CJ 155D</strong></td>
<td>Law Enforcement Skills and Knowledge Modules 4</td>
</tr>
</tbody>
</table>

**These courses are not transferable to four-year universities.

Associate in Science Degree in Corrections

General Education ......................................................... 21
Corrections Core Courses ............................................... 21
Approved Electives ...................................................... 10-13
Electives (Any course 1-199) ........................................... 5-8
Total for A.S. Degree in Corrections ................................. 60

Community Service Officer Skills Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1</td>
<td>Introduction to Criminal Justice 3</td>
</tr>
<tr>
<td>CJ 3</td>
<td>Criminal Evidence 3</td>
</tr>
<tr>
<td>CJ 5</td>
<td>The Police role in the Community 3</td>
</tr>
<tr>
<td>CJ 110</td>
<td>Forensic Investigation 3</td>
</tr>
<tr>
<td>CJ 170A</td>
<td>Law Enforcement Training–PC 832 2½</td>
</tr>
<tr>
<td>ENGL 1A/1AMC</td>
<td>College Composition (with grade B or better) 3</td>
</tr>
</tbody>
</table>

Total for Community Service Officer .................................. 17½

Information for Fire Technology Majors

Today, fire service personnel are faced with a diverse and complex environment. Firefighters must be well trained to deal effectively with the fire protection problems, emergency medical care response, and hazardous materials emergencies. The Fire Technology Program at Cabrillo College emphasizes basic educational skills in mathematics, chemistry, and communications, as well as fire protection curriculum designed to prepare students for careers in the fire protection field.

Careers in fire protection include public fire service, fire protection engineering, and education. Positions are available in state and federal agencies and private industry. Thousands of openings for both men and women occur each year in fire service and related fields; competition is keen, however. Most fire departments require degrees or certificates of proficiency as a prerequisite for promotion.

High School preparation: Completion of algebra, chemistry, and physics is highly recommended.

The following model program fulfills requirements for an A.A. Degree in Fire Technology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 1</td>
<td>Fire Protection Organization 3</td>
</tr>
<tr>
<td>FT 2</td>
<td>Fire Prevention Technology 3</td>
</tr>
<tr>
<td>FT 3</td>
<td>Fire Protection Equipment and Systems 3</td>
</tr>
<tr>
<td>FT 4</td>
<td>Building Construction for Fire Protection 3</td>
</tr>
<tr>
<td>FT 5</td>
<td>Fire Behavior and Combustion 3</td>
</tr>
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</table>

Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 7</td>
<td>Introduction to Hazardous Materials 3</td>
</tr>
<tr>
<td>FT 8</td>
<td>Wildlands Fire Control 3</td>
</tr>
<tr>
<td>FT 9</td>
<td>Fire Investigation 3</td>
</tr>
<tr>
<td><strong>FT 155D</strong></td>
<td>Fire Technology Skills and Knowledge Modules 4</td>
</tr>
</tbody>
</table>

**This course does not transfer to a four-year university.

Associate in Arts Degree in Fire Technology

General Education ......................................................... 30
Core Courses ............................................................ 15
Approved Electives ...................................................... 6-13
Electives (any course 1-99) .......................................... 2-9
Total for A.A. Degree in Fire Technology ........................... 60
### A.S. Degree in Fire Technology

#### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 1</td>
<td>Fire Protection Organization</td>
<td>3</td>
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<tr>
<td>FT 2</td>
<td>Fire Prevention Technology</td>
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<tr>
<td>FT 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FT 4</td>
<td>Building Construction for Fire Protection</td>
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</tr>
<tr>
<td>FT 5</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
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</table>

#### Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 7</td>
<td>Introduction to Hazardous Materials</td>
<td>3</td>
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<tr>
<td>FT 8</td>
<td>Wildlands Fire Control</td>
<td>3</td>
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<tr>
<td>FT 9</td>
<td>Fire Investigation</td>
<td>3</td>
</tr>
<tr>
<td>FT 155D</td>
<td>Fire Technology Skills and Knowledge Modules</td>
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<tr>
<td>FT 175</td>
<td>Hazardous Materials-First Responder Operations</td>
<td>½</td>
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<tr>
<td>FT 176</td>
<td>Confined Space I</td>
<td>¼</td>
</tr>
<tr>
<td>FT 183</td>
<td>Emergency Medical Technician-1</td>
<td>7</td>
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<tr>
<td>FT 183L</td>
<td>Emergency Medical Technician Lab</td>
<td>1-3</td>
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<tr>
<td>FT 187</td>
<td>CPR for Health Providers</td>
<td>¼</td>
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<tr>
<td>FT 188</td>
<td>Advanced EMS: Preparing for Paramedic Training</td>
<td>3</td>
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</table>

#### Associate in Science Degree in Fire Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education</td>
<td>21</td>
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<tr>
<td></td>
<td>Fire Technology Core Courses</td>
<td>15</td>
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<td></td>
<td>Approved Electives</td>
<td>6-24</td>
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<tr>
<td>Electives (any course 1-199)</td>
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<td>0-18</td>
</tr>
<tr>
<td></td>
<td>Total for A.S. Degree in Fire Technology</td>
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</tr>
</tbody>
</table>

#### FIRE SERVICE MANAGEMENT OPTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 160</td>
<td>Fire Management I</td>
<td>2</td>
</tr>
<tr>
<td>FT 161</td>
<td>Fire Command 1A</td>
<td>2</td>
</tr>
<tr>
<td>FT 162</td>
<td>Fire Command 1B</td>
<td>2</td>
</tr>
<tr>
<td>FT 163</td>
<td>Fire Prevention 1A</td>
<td>2</td>
</tr>
<tr>
<td>FT 164</td>
<td>Fire Prevention 1B</td>
<td>2</td>
</tr>
<tr>
<td>FT 165</td>
<td>Fire Investigation 1A</td>
<td>2</td>
</tr>
<tr>
<td>FT 166</td>
<td>Fire Investigation 1B</td>
<td>2</td>
</tr>
<tr>
<td>FT 167</td>
<td>Fire Instructor 1A</td>
<td>2</td>
</tr>
<tr>
<td>FT 168</td>
<td>Fire Instructor 1B</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Introduction to Non-Profit Government Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 158</td>
<td>Business Grammar</td>
<td>3</td>
</tr>
<tr>
<td>BUS 164</td>
<td>Human Relations &amp; Supervision</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>COMM 4</td>
<td>Persuasion and Argument</td>
<td>3</td>
</tr>
<tr>
<td>CJ 2</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CJ 170A</td>
<td>Law Enforcement Reserve Training</td>
<td></td>
</tr>
<tr>
<td>FT 155D</td>
<td>Fire Technology Skills and Knowledge Modules</td>
<td></td>
</tr>
<tr>
<td>HS 12</td>
<td>Stress Management</td>
<td>3</td>
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<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 99SL</td>
<td>Service Learning in Fire Technology</td>
<td>1-3</td>
</tr>
<tr>
<td>FT 183</td>
<td>Emergency Medical Technician-B</td>
<td>3</td>
</tr>
<tr>
<td>FT 183L</td>
<td>Emergency Medical Technician Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>FT 188</td>
<td>Advanced EMS: Preparing for Paramedic Training</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Total for Emergency Medical Technician Skills Certificate 8-12

### Public Safety Courses

#### CJ 1

**Introduction to Criminal Justice**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

History and philosophy of the administration of justice in America; identification and interrelationship of the various subsystems; theories of crime, punishment, and rehabilitation. May be offered in a distance learning format.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN AJ2.

#### CJ 2

**Criminal Law**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Historical development and evolution of law; origin and foundation of law in U.S.; definition and importance of case law; principles of California criminal law; components of criminal offenses and criminal negligence; legal defense; inchoate crimes; study of specific California crimes and their elements; criminal law terminology. May be offered in a Distance-Learning Format.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN AJ4.

#### CJ 3

**Criminal Evidence**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing responsibility; judicial decisions interpreting individual rights and case studies. The course may be offered in a distance learning format.

*Transfer Credit:* Transfers to CSU. CAN AJ6.
CJ 4
Criminal Courts and Procedures
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Review of court systems on the state and federal levels. Procedures from incident to final disposition. May be offered in a distance learning format.
Transfer Credit: Transfers to CSU.

CJ 5
The Police Role in the Community
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A study of the role of the police in the community with an emphasis on ethics, discretionary decision making and community policing. May be offered in a distance learning format.
Transfer Credit: Transfers to CSU.

CJ 6
Criminal Investigation
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Fundamental investigative techniques of crime scene and follow-up investigation; the definition, categories and handling of physical evidence as well as the investigative value of various types of evidence, identification and lifting of fingerprints; interviewing, interrogation and sources of information; investigating specific crimes. May be offered in a distance learning format.
Transfer Credit: Transfers to CSU. CAN AJ8.

CJ 7
Criminal Justice Written Communications
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Methods to develop students' abilities in note taking, interviewing, information gathering, report writing mechanics and organization, and critical evaluation. Attention will be given to a note-taking system and recording facts in a logical manner. Students will write and analyze police reports to meet the standards of the Criminal Justice System. May be offered in a distance learning format.
Transfer Credit: Transfers to CSU.

CJ 9
Juvenile Procedures
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Techniques of handling juvenile offenders and victims; prevention and repression of delinquency; diagnosis and referral; organization of community resources; juvenile law; and court procedures. May be taught in a distance learning format.
Transfer Credit: Transfers to CSU.

CJ 12
Contemporary Issues in the Justice System
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Designed to analyze issues of immediate concern to the justice system including domestic violence, gangs, drug and narcotic abuse, police review, controversial prosecutions and voter initiatives directed at the criminal justice system. May be offered in a distance learning format.
Transfer Credit: Transfers to CSU.

CJ 19
Introduction to Corrections
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Designed to provide the student with an overview of the history and trends of adult and juvenile corrections, including probation and parole. It will focus on the legal issues, specific laws, and general operation of correctional institutions. The relationship between corrections and other components of the judicial system will also be examined. May be taught in a distance learning format.
Transfer Credit: Transfers to CSU.

CJ 20
Criminal Behavior
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies how and why people become criminals and examines many types of criminal behavior, such as serial killers, street gangs, child molesters and abusers, sex offenders, and organized crime members. Examines factors often found in the background of the offender. Includes field trips to correctional institutions and guest speakers.
Transfer Credit: Transfers to CSU.

CJ 41
Narcotics Identification and Enforcement
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Basic identification of narcotics and intermediate types of narcotic investigations; includes licensed personnel, common forgeries of prescriptions, sales, search warrants, and surveillance. Reports and preparation for court. Participation in a mock trial. May be offered in a distance learning format.
Transfer Credit: Transfers to CSU.

CJ 110
Forensic Investigation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Teaches the skills necessary to identify, preserve, and lawfully collect evidence at a crime scene.
CJ 111
Self Defense for Law Enforcement
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
- Develops defensive skills including control holds, takedown, ground
defense, weapons retention, legal and ethical use of force principles, and
basic self defense concepts.

CJ 155D
Law Enforcement Skills and Knowledge Modules
¼-10 units; ¾ hour Laboratory
Prerequisite: Successful completion of a California P.O.S.T. Cert. Basic
Acad.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be repeated.
- Aspects of law enforcement education and training. Each module
course is 8.5 hours and may be combined for variable units. Course is
certified POST Plan IV. May be taken credit/no credit only. 3 units earned
count toward the associate degree for Criminal Justice. Open entry/open
exit.

CJ 170A
Law Enforcement Training–PC 832 Laws of Arrest
2½ units; 2½ hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
- Introduces basic law enforcement techniques to the prospective stu-
dent, covers the powers of arrest for certification by the state under P.C.
832. This is Part 1 of Module III Training, P.C. 832 Laws of Arrest.

CJ 170B
Law Enforcement Training - P.C. 832 Firearms
1½ units; 1½ hours Lecture
Prerequisites: Satisfactory completion of CJ 170A or equivalent;
Department of Justice written certification, stating that a student has no
criminal history that would disqualify him/her from using a firearm, is
required prior to the start of class. (CA P.C. 13511.5)
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
- Trains students in the use of firearms to meet the State of California
P.O.S.T. requirements for Part 1 of Level III Module, PC 832 Firearms.

CJ 170C
Law Enforcement Reserve Training-Level III
4 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: CJ 170B or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
- A continuation of basic law enforcement techniques for the prospec-
tive reserve officer and peace officers. Level III Module. Part two.

CJ 170D
POST Format Modular II Training
7 units; 3 hours Lecture, 12 hours Laboratory
Prerequisite: CJ 170C.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
- The Modular II training is a continuation of basic law enforcement
training for the prospective Reserve Officer and Peace Officer. At the con-
clusion of this module the student may apply for employment as a Level
II Reserve Officer or after successfully passing a state proctored test,
may continue to Modular I training to complete the Basic Academy
requirements.

CJ 190A-Z
Special Topics in Criminal Justice
½ - 12 units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
- Selected topics in Criminal Justice not covered by regular catalog
offerings. Each special topic course will be announced, described, and
given its own title and letter designation in the Schedule of Classes. The
structure and format of the classes will vary depending on the subject
matter. Any particular special topics course may be taken a total of four
times.

FT 1
Fire Protection Organization
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
- Examines fundamentals of fire department organization, management,
and resources, emphasizing the use of those resources to control vari-
ous emergencies. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

FT 2
Fire Prevention Technology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
- Examines portable fire extinguishing equipment; fire detection and
alarm systems, sprinkler systems; and protection systems for special
hazards. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

FT 3
Fire Protection Equipment and Systems
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
- Examines portable fire extinguishing equipment; fire detection and
alarm systems, sprinkler systems; and protection systems for special
hazards. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
FT 4
**Building Construction for Fire Protection**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines the fundamentals of building construction as they relate to fire protection including occupancy, building equipment, facilities, fire resistive materials, and high-rise considerations. May be offered in a Distance-Learning Format.
*Transfer Credit: Transfers to CSU.*

FT 5
**Fire Behavior and Combustion**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Examines theory and fundamentals of how and why fires start, spread, and are controlled including an in-depth study of fire chemistry, physics, characteristics of materials, extinguishing agents, and control techniques. May be offered in a Distance-Learning Format.
*Transfer Credit: Transfers to CSU.*

FT 7
**Introduction to Hazardous Materials**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Presents emergency handling of toxic and radioactive materials, fuels, oxidizers, explosives, as well as flammability and hazard control for storage and transit. May be offered in a Distance-Learning Format.
*Transfer Credit: Transfers to CSU.*

FT 8
**Wildlands Fire Control**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides the firefighter or fire protection technology major with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques. May be offered in a Distance-Learning Format.
*Transfer Credit: Transfers to CSU.*

FT 9
**Fire Investigation**
3 units; 3 hours Lecture
Recommended Preparation: FT 1; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Explores causes and types of fire, related laws, recognition and preservation of evidence, and introduces witness and suspect interviews as well as arrest, detention, and court procedures.
*Transfer Credit: Transfers to CSU.*
**FT 161**
**Fire Command 1A**
2½ units; 2½ hours Lecture
Prerequisites: FT 1, FT 3, FT 4, FT 5, FT 181, or completion of Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California Fire Service Training and Education Systems requirements for Fire Command 1A by emphasizing company officers fire structure attack methods.

**FT 162**
**Fire Command 1B**
2½ units; 2½ hours Lecture
Prerequisite: FT 161.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements for Fire Command 1B by examining emergency scene management; fire behavior tactics and strategies; initial fireground resources; and fireground simulation scenarios.

**FT 163**
**Fire Prevention 1A**
2½ units; 2½ hours Lecture
Prerequisites: FT 2, FT 3, or completion of Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets the requirements of a California State Officer course by providing a broad, technical overview of fire prevention activities required for company officers to discharge their duties regarding fire prevention.

**FT 164**
**Fire Prevention 1B**
2½ units; 2½ hours Lecture
Prerequisites: FT 2, FT 3, or completion of Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements by examining regulations pertaining to fire prevention practices including building construction and occupancy; evacuation procedures; inspection reports; and processing plans.

**FT 165**
**Fire Investigation 1A**
2½ units; 2½ hours Lecture
Prerequisites: FT 161 or completion of Firefighter 1 (Basic Fire Academy) or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements for Fire Investigation 1A, including determining fire cause; recognizing and preserving evidence; types of fires; related laws; and arson.

**FT 166**
**Fire Investigation 1B**
2½ units; 2½ hours Lecture
Prerequisite: FT 165.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall requirements for Fire Investigation 1B Certification by exploring advanced fire investigation topics including juvenile fire setting, report writing, evidence collection, and preservation procedures.

**FT 167**
**Fire Instructor 1A**
2½ units; 2½ hours Lecture
Prerequisite: FT 161.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall Instructor Training 1A requirements including methods, procedures, and technology to select, develop, and organize in-service training programs.

**FT 168**
**Fire Instructor 1B**
2½ units; 2½ hours Lecture
Prerequisite: FT 167.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets California State Fire Marshall course requirements for Instructor Training 1B by presenting methods, procedures, and techniques to help fire service personnel select, develop, and organize materials for in-service training programs.

**FT 169**
**Wildland Fire Management**
2½ units; 2½ hours Lecture
Prerequisite: FT 189, or Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Meets NWCG certified course requirements for current and prospective officers emphasizing command and tactics of initial wildland or urban interface fires, including safety and fire behavior, resources, and extended operations.

**FT 175**
**Hazardous Materials—First Responder Operations**
½ unit; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Prepares student to carry out the initial response to a hazardous materials emergency.

**FT 176**
**Confined Space I**
¼ unit; ¼ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Provides an overview of OSHA regulations as well as ANSI standards relative to confined space rescue.
FT 178
CPR for Health Providers
½ unit; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Teaches CPR skills for victims of all ages to health care providers, focusing on ventilation with a barrier device, a bag-mask device, use of an automated external defibrillator (AED).

FT 180
Basic Incident Command System 200
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces organization, basic terminology, and common responsibility information about Incident Command System (ICS) for personnel working in a support role at an incident or event.

FT 181
Intermediate Incident Command System 300
1½ units; 1½ hours Lecture
Prerequisite: FT 180 (State Fire Marshall Course # ISC. 200.)
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Reviews and further explores information designed to meet the needs of command officers managing complex emergency incidents.

FT 182
Advanced Incident Command System 400
1½ units; 1½ hours Lecture
Prerequisite: FT 181 (State Fire Marshall Course # ICS 200.)
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces large-scale organizational development; rules and relationships of primary staff; and the planning, operational, and fiscal considerations related to complex incident and event management. Intended for chief officers and designed to meet the needs of command officers managing complex emergency incidents.

FT 183
Emergency Medical Technician-B
7 units; 7 hours Lecture
Prerequisite: FT 178; State Requirement: Current CPR card for Health Care Provider (infant/child/adult.)
Corequisite: FT 183L
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. A grade of "C" or better is required for certification as an EMT-B. Repetition allowed for students whose EMT certification has lapsed.
Meets the State of California requirements for an Emergency Medical Technician-B (EMT-B) to render pre-hospital basic life support services, with emphasis on practices and techniques, vital to the interaction of EMT-B personnel with all levels of emergency medical personnel. State Requirement: Current CPR card for Health Care Provider (infant/child/adult).

FT 183L
Emergency Medical Technician Lab
1 - 3 units; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Prepares for application of emergency medical technician skills (and skills portion of the Santa Cruz County EMT certifying exam) through practice on issues from vital signs assessment to emergency childbirth.

FT 184
Emergency Medical Technician-B Refresher
1½ units; 1½ hours Lecture
Prerequisite: Possession of a valid EMT-B certificate or a certificate that has been expired for less than one year.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be repeated.
Meets California State requirements for renewal of Emergency Medical Technician-B certification for persons who hold a valid EMT-B certificate or one that has been expired for less than one year.

FT 185
Firefighter-I Academy
10 units; 20 hours Lecture
Prerequisite: 1. Ability to meet the Academy medical standards as certified by a medical doctor.
2. Ability to pass a pre-academy physical agility examination.
3. Submission of a completed application and payment of all fees.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be repeated.
Meets standards for certification by the State Board of Fire Services and the California State Fire Marshall for Firefighter 1 basic course, focusing on competent and comprehensive training in the field of Fire Technology as it relates to firefighters.

FT 186
Preparing for your Fire Service Career
½ unit; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Focuses on preparation of application and techniques for success in written, physical agility, and oral interview portions of the recruitment process.

FT 188
Advanced EMS:
Preparing for Paramedic Training
3 units; 3 hours Lecture
Prerequisite: FT 183 or equivalent; EMT and CPR certification required.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Prepares Emergency Medical Technicians for testing into paramedic school introducing aspects of advanced life support patient care. Upon course completion students will receive 24 C.E.U.s toward EMT recertification.
FT 189
CDF Wildland Firefighter 1 Academy
2¼ units; 6¾ hours Laboratory
Prerequisite: 1. Meet the academy medical standards as certified by a medical doctor. 2. Pass a pre-academy physical agility examination. 3. Submit completed application. Public safety program application. Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be repeated 4 times.

Teaches basic wildland firefighting skills, laws, and regulations including safe use of hoses, tools, equipment, and ladders.

FT 190A-Z
Special Topics in Fire Technology
½ - 12 units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be repeated 4 times. Any particular special topics course may be taken a total of 4 times.

Introduces selected topics in Fire Technology not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.

RADIOLOGIC TECHNOLOGY

Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Ann Smeltzer, Program Chair, (831) 479-5056
Counselor: (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6461 for more information
http://www.cabrillo.edu/programs

Radiologic Technology Occupational Program
This is a two-year Associate in Science Degree program providing professional training for radiologic technologists. Radiologic Technologists work in a professional environment at a hospital, clinic or private office. Skill categories include patient care, positioning, operating X-ray equipment, film quality, assessment, technical factors, and interacting with the general public, ancillary workers and physicians.

The RT Program is accredited by the Joint Review Committee on Education in Radiologic Technology and the state of California Department of Health. This program has earned the highest level of accreditation awarded by the JRCERT. A new class begins each year at the start of fall semester. Students who successfully complete the program are eligible for State Certification in Diagnostic Radiography and to take the State Permit exam in Fluoroscopy. Program graduation also provides eligibility to sit for the American Registry of Radiologic Technology (ARRT) national board examination. Program applications are accepted on a first come, first served basis.

Requirements for application include: Successful completion of the program prerequisites listed below, and the completion of the application process. Selection is based on completion of all required prerequisites with the appropriate GPA, clinical space available, and date of application. The program has a separate selection process and requires separate application in addition to the general College admission. For students not currently enrolled at Cabrillo College, general college application materials are available in the Admissions Office and on the Cabrillo College web site. Radiologic Technology program applications are available in the counseling and RT offices and on the RT web site. Two official transcripts must be sent with the program application. After reading the appropriate sections of the Cabrillo College Catalog and the Radiologic Technology program brochure, please contact the RT office at (831) 479-6461 for specific directions on application. Due to the course load, it is advisable to complete as much of the general education requirements as possible before entering the program. Meeting minimum requirements does not guarantee entry into the program as enrollment is limited due to hospital clinical space. Currently there is a shortage of radiologic technologists. Job opportunities are abundant in all modalities and well compensated.

Prerequisites

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(Writing laboratory 1 unit corequisite to ENGL 100)

* A course such as CHEM 30A or CHEM 32 is a prerequisite; Elementary Algebra (MATH 154) or placement into Intermediate Algebra (MATH 152) by assessment is a prerequisite to CHEM 30A or CHEM 32. * A course such as CHEM 30A or CHEM 32 is the prerequisite for BIO 3; Elementary Algebra (MATH 154) or placement into Intermediate Algebra (MATH 152) by assessment is a prerequisite to CHEM 30A or CHEM 32. Please see a counselor or check www.assist.org for more information if you are interested in transfer to a 4-year university in Radiologic Technology. All prerequisites and published curriculum courses must be completed with a grade of “C” or better with the exception of MA 170A, which requires a minimum of a “B” grade. These prerequisites may also be used to satisfy appropriate general education areas.

Elective Not Required for Radiologic Technology Degree

ALH 101 A Review of Anatomy and Physiology . . . . 2

Core Courses

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RT 61 Radiographic Positioning ........................................ 2
RT 61L Radiographic Positioning Lab II .................................. 1
RT 62 Principles of Radiation Protection .......................... 2
RT 63 Advanced Positioning Lab/Clinic IV ......................... 8
RT 64 Advanced Positioning Lab/Clinic V ........................ 1½
RT 65 Advanced Positioning Lab/Clinic VI ......................... 8
RT 70 Principles of Fluoroscopy ........................................ 1
RT 70L Applied Principles of Radiographic Imaging II ................. ½
RT 71 Radiographic Positioning III ....................................... 2
RT 71L Positioning Laboratory III ........................................ 2
RT 72 Advanced Diagnostic Imaging Research ...................... 2
RT 82 Advanced Diagnostic Imaging ................................... 1
RT 83 Preparation for State and National Boards ........................ 2
RT 175 Advanced Patient Care: Venipuncture for Radiographers ........................................ ½

Electives-Magnetic Resonance Imaging
RT 189A Sectional Anatomy ........................................... 1
RT 190 MRI Physics .................................................. 2
RT 191 MRI Imaging and Procedures ................................. 3
RT 192 MRI Lab/Clinic ................................................ 8

Electives-Mammography
RT 185 Principles of Mammography .................................. 2
RT 185L Principles of Mammography Lab ............................ 1

Skills Certificate: Venipuncture
RT 175 Advanced Patient Care: Venipuncture ....................... ½

General Education
This A.S. Degree requires completion of a 21-unit general education pattern (see Cabrillo College Catalog under Associate in Science Degree or the A.S. Degree worksheets available in Counseling Division or on the Transfer and Articulation website.)

A Bachelor of Science/Bachelor of Arts Degree from a regionally accredited college or university will satisfy all general education and competency requirements for Cabrillo’s non-transfer A.A. and A.S. Degrees, with the exception of the multicultural requirement and program-specific graduation requirements.

Mathematics Competency Requirement
The A.S. Mathematics Requirement may be met by successful completion of elementary algebra or equivalent or a higher-level mathematics course with a grade of "C" or better. Successful completion must be verified by an official college transcript or by an appropriate score on the Cabrillo mathematics assessment.

Multicultural Requirement
An approved multicultural course is required for graduation. This course may be double counted with general education or other program graduation requirements. Courses taken at other regionally accredited colleges can be used when approved by a Cabrillo counselor.

Security Screening
To comply with state and local regulations for health care providers, students accepted to the Cabrillo College Radiologic Technology program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Services Center before enrolling in the program. Students are also required to complete criminal background checks and may be required to undergo fingerprinting.

Associate in Science Degree

General Education Courses ........................................... 21
Core Courses .......................................................... 61½
Total for A.S. Degree in Radiologic Technology 82½

Radiologic Technology Courses

RT 50
Introduction to Radiologic Technology/Patient Care
2 units; 2 hours Lecture
Prerequisite: Selection to the Radiologic Technology Program. BIO 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces fundamentals of radiologic technology with emphasis on basic patient care. Includes topics related to appropriate care of patients for general radiographic procedures. Review of standard precautions, HIPAA, health management systems, medical ethics, and professional standards.
Transfer Credit: Transfers to CSU.

RT 50L
R.T. Patient Care Laboratory
¼ unit; ¾ hour Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Corequisite: RT 50.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Introduces the fundamentals of patient care in radiologic technology with laboratory instruction and demonstration of safe practices in medical imaging. Includes practical applications of radiation protection, body mechanics, contrast media preparation, vital signs, asepsis, HIPAA regulations, and standard precautions.
Transfer Credit: Transfers to CSU.

RT 51
Radiographic Positioning I
2 units; 2 hours Lecture
Prerequisite: Selection to Radiologic Technology Program.
Corequisite: RT 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Radiographic positioning and related anatomy of the chest, abdomen, upper and lower limbs. Includes basic radiographic terminology. Review of related pathologies and their radiographic appearances. Includes routine and non-routine radiographic procedures.
Transfer Credit: Transfers to CSU.
RT 51L
Positioning Laboratory I
1 unit; 3 hours Laboratory
Prerequisite: Selection to Radiologic Technology Program.
Corequisite: RT 51.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Apply radiographic anatomy and positioning of the chest, abdomen, upper and lower extremities. Structured, individualized instruction accompanied by laboratory demonstration. Principles of anatomy and physiology are applied to discussions and practice in positioning.
Transfer Credit: Transfers to CSU.

RT 52
Radiation Physics
2 units; 2 hours Lecture
Prerequisite: Selection to the Radiologic Technology Program. PHYS 10.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Provides a basic understanding of the physical principles underlying the production of X-rays and interaction with matter, a study of the fundamentals of: atomic structure, X-ray tubes, circuits, types, measurement and properties, types of X-ray machines, principles of magnetism, elements of electricity, electrical power, current, resistance, transformers, rectifiers and quality assessment.
Transfer Credit: Transfers to CSU.

RT 53A
Basic Radiologic Technology Laboratory/ Clinic I
5½ units; 16½ hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Applies classroom theory (RT 51) and laboratory practice (RT 51L) in clinical education facilities by assignment. The student radiographer, under direct supervision, participates in radiographic procedures, radiology management systems, computerized patient systems, radiation safety and basic patient care.
Transfer Credit: Transfers to CSU.

RT 53B
Radiologic Technology Lab/Clinic II
1½ units; 5 hours Laboratory
Prerequisite: RT 53A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Applies classroom theory (RT51) and laboratory practice (RT51L) in clinical education facilities by assignment. The student radiographer, under direct supervision, participates in radiographic procedures, radiology management systems, computerized patient systems, radiation safety and basic patient care.
Transfer Credit: Transfers to CSU.

RT 53C
Radiologic Technology Laboratory/ Clinic III
5½ units; 16 hours Laboratory
Prerequisite: RT 53A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Clinical application of classroom theory (RT 51 and 61) and laboratory practice (RT 51L and 61L) in clinical education facilities by assignment. The student radiographer, under direct supervision, participates in and/or performs radiographic procedures.
Transfer Credit: Transfers to CSU.

RT 53D
Radiologic Technology Laboratory/ Clinic IV
8 units; 24 hours Laboratory
Prerequisite: RT 53C.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Based on clinical education availability.

Applies classroom theory (RT 51 and 61) and laboratory practice (RT 51L and 61L) in clinical education facilities by assignment. The student radiographer, under direct supervision, participates in radiographic/fluoroscopic procedures, radiology management systems, computerized patient systems, radiation safety, and patient care.
Transfer Credit: Transfers to CSU.

RT 60
Principles of Radiographic Imaging
2 units; 2 hours Lecture
Prerequisite: RT 52.
Corequisite: RT 60L.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.

Reviews the techniques employed in the use and control of x-ray equipment in radiographic procedures. Introduces darkroom chemistry, film processing, film/cassettes types and construction and the impact of contrast and density, and technique formulation. Studies the fundamentals of the photographic process; digital and computerized radiographic principles and general radiographic QA/QC.
Transfer Credit: Transfers to CSU.

RT 60L
Applied Principles of Radiographic Imaging Lab
½ unit; 1½ hours Laboratory
Prerequisite: RT 52.
Corequisite: RT 60.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Applies theory of RT 60 to the lab setting. Studies the effects of techniques and technique selection, radiographic film cassettes, intensifying screens, collimation, grid and Bucky use, darkroom procedures and processing. Reviews computerized radiography and digital radiography principles and application.
Transfer Credit: Transfers to CSU.
RT 61
Radiographic Positioning II
2 units; 2 hours Lecture
Prerequisite: RT 51.
Corequisite: RT61L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches positioning principles, management of contrast media, related radiation protection, technical factors and nursing skills related to genitourinary, gastrointestinal tract, spine, ribs, sacrum and coccyx. Both routine and non-routine projections are presented.
Transfer Credit: Transfers to CSU.

RT 61L
Radiographic Positioning Lab II
1 unit; 3 hours Laboratory
Prerequisite: RT 51L.
Corequisite: RT 61.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Apply laboratory assignments as related to concurrent instruction in RT 61. Students apply positioning principles and criteria in a mock situation. Both routine and optional positions are presented.
Transfer Credit: Transfers to CSU.

RT 62
Principles of Radiation Protection
2 units; 2 hours Lecture
Prerequisite: RT 52.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Studies state and federal laws which govern and control the use of ionizing radiation and the manufacture and use of radiation equipment. An introduction to radiation protection with methods of protection from radiation for the patient and the technologist and radiobiology with emphasis on absorption of radiation and its effects upon biological tissue.
Transfer Credit: Transfers to CSU.

RT 63
Advanced Positioning Lab/Clinic IV
8 units; 24 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Subject to availability of clinical education sites.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities by assignment. The student under indirect/direct supervision where appropriate, participates in radiographic procedures, radiology management systems, computerized patient system, radiation safety, and patient care appropriate to the program level.
Transfer Credit: Transfers to CSU.

RT 64
Advanced Positioning Lab/Clinic VI
1½ units; 5 hours Laboratory
Prerequisite: RT 63.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. Subject to availability of clinical education sites.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities by assignment. The student under indirect/direct supervision where appropriate, participates in radiographic procedures, radiology management systems, computerized patient system, radiation safety, and patient care appropriate to the program level.
Transfer Credit: Transfers to CSU.

RT 65
Advanced Positioning Lab/Clinic VII
8 units; 24 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 READ 100.
Repeatability: May be taken 2 times. Subject to availability of clinical education sites.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities by assignment. The student under indirect/direct supervision where appropriate, participates in radiographic procedures, radiology management systems, computerized patient system, radiation safety, and patient care appropriate to the program level.
Transfer Credit: Transfers to CSU.

RT 70
Principles of Fluoroscopy
1 unit; 1 hour Lecture
Prerequisite: ARRT/CRT License.
Corequisite: RT 70L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Provides an overview of the State of California Fluoroscopy regulations, radiation safety, equipment image intensifiers, closed circuit T.V., image recording devices, mobile image intensified units, anatomy and physiology of the eye and relative 3-D anatomy.
Transfer Credit: Transfers to CSU.

RT 70L
Applied Principles of Fluoroscopy
½ unit; 1½ hours Laboratory
Prerequisite: ARRT/CRT License or 2nd year Radiologic Technology Student.
Corequisite: RT 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Studies scattered radiation effects, the appropriate use of collimation, fluoroscopic equipment selection and use, control of automatic brightness control (ABC), quality assurance practices, and quality control of radiographic and fluoroscopic equipment in Fluoroscopy laboratory.
Transfer Credit: Transfers to CSU.
RT 71
Radiographic Positioning III
2 units; 2 hours Lecture
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Apply Part III of the radiographic positioning course sequence including the cranium, facial bones, and paranasal sinuses.
Transfer Credit: Transfers to CSU.

RT 71L
Positioning Laboratory III
1 unit; 3 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Apply Part III of the radiographic positioning laboratory course sequence, including the cranium, facial bones, and paranasal sinuses.
Transfer Credit: Transfers to CSU.

RT 72
Advanced Diagnostic Imaging Research
2 units; 2 hours Lecture
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches the analysis of technically advanced imaging modalities including CT, MRI, PET and other imaging modalities.
Transfer Credit: Transfers to CSU.

RT 73
Medical Imaging Pathology
1 unit; 1 hour Lecture
Prerequisite: RT 61.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

A survey of pathologies and their manifestations in medical imaging. Physiology of the human body as it relates to medical imaging and how pathology commonly impacts body functions are reviewed in case studies. May be offered in distance-learning format.
Transfer Credit: Transfers to CSU.

RT 82
Advanced Diagnostic Imaging
1 unit; 1 hour Lecture
Prerequisite: RT 72.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents advanced radiographic procedures to include advanced modalities of computerized tomography, computed radiography, and angiography.
Transfer Credit: Transfers to CSU.

RT 83
Preparation for State and National Boards
2 units; 2 hours Lecture
Prerequisite: Graduation from accredited RT program or 2nd year Radiation Technology Student.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Analyzes, evaluates and critiques the theory and practice of the following: care and management of the patient; radiologic analysis and positioning, radiation protection for radiography and fluoroscopy; darkroom chemistry; radiation physics, radiographic and fluoroscopic equipment, fluoroscopy principles and principles of radiographic techniques. Included is a comprehensive review of the State of California’s Health, Title XVII regarding fluoroscopic radiation laws.
Transfer Credit: Transfers to CSU.

RT 150LXT
XT Patient Care Laboratory
½ unit; 1½ hours Laboratory
Prerequisite: Selection to XT Program.
Corequisite: RT 150XT, RT 151XT, RT 151LXT.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces fundamentals of patient care in x-ray with laboratory instruction and demonstration of safe practices in medical imaging. Includes practical applications of radiation protection, body mechanics, vital signs, asepsis, and standard precautions.

RT 150XT
Introduction to X-Ray Technician Patient Care
1 unit; 1 hour Lecture
Prerequisite: Selection to the XT Program.
Corequisite: RT 150LXT; RT 151XT; RT 151LXT.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the fundamentals of x-ray with emphasis on basic patient care. Includes topics related to safe and proper care of patients for general x-ray procedures as well as professional standards. Offers certification of the National Safety Council in Bloodborne Pathogens.

RT 151LXT
X-Ray Positioning Laboratory I
½ unit; 1½ hours Laboratory
Prerequisite: Selection to XT Program.
Corequisite: RT 151XT.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches radiographic anatomy and positioning using structured, individualized instruction accompanied by laboratory demonstration. Principles of anatomy and physiology are applied to discussion and practice in problems in positioning.
RT 151XT
X-Ray Positioning I
1½ units; 1½ hours Lecture
Prerequisite: Selection to XT Program; MA 170A.
Corequisite: RT 151LXT.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches radiographic positioning and related anatomy of the chest, upper and lower extremities. Includes basic radiographic terminology and a review of pathologies and their radiographic appearances. Includes routine and non-routine radiographic procedures.

RT 152XT
Radiation Physics
1 unit; 1 hour Lecture
Prerequisite: Selection to XT Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides a basic understanding of the physical principles underlying the production of x-rays and their interaction with matter.

RT 153BXT
Basic X-Ray Laboratory/Clinic II
5 units; 16 hours Laboratory
Prerequisite: Selection to XT Program, RT 153AXT.
Corequisite: RT 161XT; RT 161LXT
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Provides clinical application of classroom theory from RT161XT and laboratory practice from RT161LXT in clinical education facilities by assignment. Participates in and/or performs radiographic procedures under direct supervision.

RT 160LXT
Applied Principles of Radiographic Imaging I Lab
½ unit; ½ hours Laboratory
Prerequisite: Selection to XT Program.
Corequisite: RT 160XT.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies theory from RT160XT to include the study of QA/QC, the effects of techniques and technique selection, radiographic film cassettes, intensifying screens, collimation, grid and Bucky use, darkroom procedures and processing.

RT 161LXT
X-Ray Positioning Laboratory II
½ unit; ½ hours Laboratory
Prerequisite: Selection to XT Program.
Corequisite: RT 161XT
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Applies theory from RT 161XT to include radiographic positioning, related anatomy of the torso-skeleton, radiographic terminology and review of related pathologies and their radiographic appearance. Includes routine and non-routine radiographic procedures.

RT 162XT
Principles of Radiation Protection
2 units; 2 hours Lecture
Prerequisite: Selection to the XT Program, RT 152XT.
Corequisite: RT 183XT.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches a comprehensive introduction to radiobiology with emphasis on absorption of radiation and its effects upon tissue and tissue recovery rate. Also studied are methods of protection from radiation of both the patient and the technologist, state and federal laws which govern and control the use of ionizing radiation and the manufacturing of equipment.

RT 175
Advanced Patient Care: Venipuncture for Radiographers
½ unit; ½ hour Lecture, ½ hour Laboratory
Prerequisite: Current CPR/Healthcare Provider Card; RT enrollment, ARRT or CRT; RT 61.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Basic instruction and practice of venipuncture methods/procedures for the administration of contrast agents. Routes of administration, safety, basic pharmacology, dosage calculations and emergency procedures.

RT 183XT
Preparation for State Examinations
1 unit; 1 hour Lecture
Prerequisite: Selection to the XT Program.
Corequisite: RT 162XT.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Analyze, evaluate, and critique the theory and practice of the following: care and management of the patient; radiologic analysis and positioning; radiation protection for radiography; darkroom chemistry; radiation physics; and principles of radiographic technique.

RT 184A
Basic Radiologic Technology Laboratory/Clinic II
1½ units; 2½ hours Laboratory
Prerequisite: RT 53A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
The clinical application of classroom theory (RT51) and laboratory practice (RT51L) is offered in clinical education facilities by assignment. The student radiographer, under direct supervision participates in and/or performs radiographic procedures.

RT 184A-Z
Special Topics in Radiologic Technology
1 - 3 units; 3 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Repeatability: May be taken 4 times. From different topics.
Enrichment program in the radiologic sciences. Course is tailored to individual needs and interests as enrichment or expansion of subject area material through lab and/or field work, learning lab or directed reading. May be taken a total of four times or a maximum of 12 units of different topics.
RT 184B
Advanced Positioning Lab/Clinic VI
1½ units; 2½ hours Laboratory
Prerequisite: RT 63.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Clinical application of classroom theory (RT51, 61, and 71) and laboratory practice (RT51L, 61L, 71L) in clinical education facilities by assignment. The student radiographer, under direct supervision when appropriate, participates in and/or performs radiographic procedures.

RT 184C
Transition to the Professional Role
2 units; 2 hours Lecture
Prerequisite: ARRT/CRT or 2nd year radiologic technology student.
Repeatability: May be taken 2 times.
A comprehensive review of the topics studied in the theory and practice of the following: care and management of the patient; radiologic analysis and positioning; radiation protection for radiography and fluoroscopy; darkroom chemistry; radiation physics; radiographic and fluoroscopic equipment; fluoroscopy principles and principles of radiographic techniques. Included is a comprehensive review of the State of California’s Department of Health Services, Title XVII regarding fluoroscopic radiation laws.

RT 185
Principles of Mammography
2 units; 2 hours Lecture
Prerequisite: CRT or ARRT license or within one year of graduation in a Radiologic Technology Program.
Corequisite: Concurrent enrollment in RT 185L.
Recommended Preparation: ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Studies the theory and practice of mammographic positioning, quality assurance/quality control, and imaging the anatomy and pathophysiology of the breast. Course prepares the student for the state and national certification exams in mammography.

RT 185C
Principles of Mammography Lab/Clinic
1 unit; 3 hours Laboratory
Prerequisite: Certified Radiologic Technologist (CRT) or American Registry of Radiologic Technologists (ARRT) license or within one year of graduation in a Radiologic Technology Program.
Corequisite: RT 185 and 185L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Clinical application of classroom theory and laboratory skills (RT185 and RT185L) with practical use of Mammography patient and imaging protocols. Demonstration of competency in current mammographic practices to meet qualifications under the Mammography Quality Standards Act (MQSA Federal regulations) in conjunction with California state certification requirements.

RT 185L
Principles of Mammography Lab
1 unit; 3 hours Laboratory
Prerequisite: ARRT/CRT or 2nd year Radiologic Technology student.
Corequisite: RT 185.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Laboratory component to RT 185. Breast positioning and imaging techniques; quality control/quality assurance; operation of mammographic equipment; operation of dedicated automatic processor.

RT 189A
Sectional Anatomy
1 unit; 1 hour Lecture
Prerequisite: BIO 4 or equivalent skills.
Corequisite: RT 189AL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Studies sectional human anatomy for health care professionals. Emphasis on transverse planes as related to sonography, computerized tomography and magnetic resonance imaging.

RT 189AL
Sectional Anatomy Laboratory
½ unit; 1½ hours Laboratory
Prerequisite: Corequisite: RT 189A
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Sectional human anatomy laboratory with practical application of the content and theories of RT 189A. Emphasis on multiplanar sections as related to sonography, computerized tomography and magnetic resonance imaging. Case studies utilizing various cross-sectional modalities will be presented. Concurrent enrollment in or prior completion of RT 189A.

RT 190
Magnetic Resonance Imaging (MRI) Physics
3 units; 3 hours Lecture
Prerequisite: ARRT certification or CRT License or 2nd year RT student; and CPR (Health Care Provider) certification and venipuncture certification.
Corequisite: RT 191.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Reviews the fundamentals of magnetic resonance imaging (MRI) principles. Includes study of T1-T2 relaxation, pulse sequences, image formation, contrast media and instrumentation.
RT 191
Magnetic Resonance Imaging and Procedures
2 units; 2 hours Lecture
Prerequisite: ARRT certification or CRT License or 2nd year RT student; and CPR (Health Care Provider) certification and venipuncture certification and RT 189A or equivalent.
Corequisite: RT 190.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.
Reviews common and specialty magnetic resonance imaging methodology and procedures. Studies magnetic resonance imaging with computer applications, scanner operations, and patient examination procedures.

RT 192
Magnetic Resonance Imaging Lab/Clinic
8 units; 24 hours Laboratory
Prerequisite: RT 190 and RT 191.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.
Introduces clinical education in the practice of Magnetic Resonance Imaging procedures. Demonstration of competency of MRI current practices.

READING
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Nancy Phillips, Program Chair, (831) 477-3208
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Reading Courses
READ 20
Techniques of Tutoring Reading
3 units; 3 hours Lecture
Prerequisite: ENGL 100 and READ 100.
The course provides background for students to become effective tutors in reading. The student will be able to diagnose basic reading problems, prepare appropriate material, and employ proper techniques when tutoring a remedial reader.
Transfer Credit: Transfers to CSU.

READ 52
Speed and Comprehension
2 units; 2 hours Lecture
Prerequisite: Completion of READ 100/106 or appropriate assessment score.
Recommended Preparation: Completion of ENGL 100.
The course is designed to improve both reading speed and comprehension with a limited amount of vocabulary work. The class is organized on a group and individual basis, using various materials and equipment. The course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

READ 100
College Reading
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
A college level reading class for students whose reading skill is at the college level but who lack the necessary experience in reading for comprehension, analysis, and application.

READ 106
Individualized Reading
1 - 3 units; 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Open to all students with average or better reading ability. Diagnostic tests will determine weaknesses and strengths in study-skills, vocabulary, comprehension, and speed. Assignments using various materials and equipment will be arranged on an individual contract basis, depending on test results. The required class time depends on the number of units the student desires. Credit/no credit grading only.

READ 107
Pleasure Reading
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Explores pleasurable reading experiences through a variety of texts and identifies titles in areas such as travel, fantasy, humor, realism, and others. Some oral reading and improvement of reading efficiency.

READ 109A
Learning From Text
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Teaches students to read and study academic text effectively using the assigned readings and lectures of their academic courses (i.e. Psychology, Economics, etc.).

READ 112
Vocabulary (Advanced)
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Helps students build their English vocabularies through individualized work in the Reading Lab. The student works independently with no formal class meeting, completing approximately 50 hours of study. Credit/no credit grading only.
READ 205
Introduction to College Reading
3 units; 3 hours Lecture
Open to students whose reading skills are below college level. Emphasis is placed upon improving fundamental reading skills, including word recognition, comprehension and vocabulary knowledge. Students are expected to spend the time outside class to raise their level of reading ability. Recommended for international students and those with below average reading skills. Credit/no credit grading only.

READ 206
Individualized Reading
1 - 3 units; 2 hours Laboratory
Open to students with below college level reading ability. Diagnostic test will determine weaknesses and strengths in study skills, vocabulary, comprehension and speed. Assignments using various materials and equipment will be arranged on an individual contract basis, depending on test results. The required time depends on the number of units the student desires. Credit/no credit grading only.

READ 206SL
ESL Individualized Reading
1 - 3 units; 2 hours Laboratory
Designed for students whose first language is not English, with below college reading ability. Diagnostic tests determine strengths and weaknesses in vocabulary, comprehension, speed, and study skills. Assignments arranged individually according to test results. Credit/no credit grading only.

READ 210A
Vocabulary (Basic)
1 unit; 3 hours Laboratory
Course consists of programmed instruction, tapes and texts. The student works independently with no formal class meetings, completing approximately 50 hours of study. After enrolling, the student should check at the Reading Center for specific procedures as hours are arranged. Credit/no credit grading only.

READ 210B
Vocabulary (Intermediate)
1 unit; 3 hours Laboratory
This course consists of programmed instruction, tapes and texts. The student works independently with no formal class meetings, completing approximately 50 hours of study. After enrolling, the student should check at the Reading Center for specific procedures as hours are arranged. Credit/no credit grading only.

READ 255
Basic Reading
3 units; 3 hours Lecture
A literature-based course open to those students whose skill in reading is below college level. Emphasis is placed on comprehension, vocabulary improvement, and reading in content areas. Designed for ESL students and students who struggle with comprehension and vocabulary. Credit/no credit grading only.

READ 502
Supervised Tutoring in Reading
0 units; 5 hours Laboratory
Repeatability: May be repeated.
Supervised individual and group drop-in tutoring assistance in a variety of areas, ranging from basic skills and vocabulary work, to content-area reading, critical and analytical reading and vocational reading. May be taken for support in other courses, including basic skills, vocational, and transferable courses.

REAL ESTATE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
Mo Hassan, Program Chair, (831) 477-3201
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Real Estate Occupational Program
The Real Estate program presents classes for individuals wishing to gain more skill and knowledge in the growing and dynamic field of real estate. Employment opportunities exist in real estate for salespeople and brokers. Financial firms also seek qualified and knowledgeable individuals in various job capacities. The program offers courses which are required for California sales agents and brokers licenses. Please refer to the California Department of Real Estate at http://www.dre.ca.gov/ for up to date licensing requirements.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>RE 150 Real Estate Principles</td>
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<td>RE 152 Real Estate Practice</td>
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<table>
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<tr>
<th>Approved Electives</th>
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<tr>
<td>RE 140 Mortgage Lending and Banking</td>
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<tr>
<td>RE 151 Real Estate Economics</td>
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<tr>
<td>RE 153 Real Estate Finance</td>
<td>3</td>
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<tr>
<td>RE 154A Legal Aspects of Real Estate</td>
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<td>RE 155A Real Estate Appraisal</td>
<td>3</td>
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<tr>
<td>RE 155B Advanced Real Estate Appraisal</td>
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<td>RE 157 Property Management</td>
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<tr>
<td>RE 156 Escrow</td>
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<td>RE 193 Real Estate Computer Applications</td>
<td>3</td>
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<tr>
<td>ACCT 1A Principles of Accounting</td>
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</tr>
<tr>
<td>BUS 18 Business Law</td>
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</tbody>
</table>
Associate in Science Degree in Real Estate

General Education ............................................. 21
Core .......................................................... 6
Approved Electives ........................................... 12
Real Estate, Business, Accounting, and Finance Electives ...................... 12
Electives ......................................................... 9
Total for A.S. Degree in Real Estate ........................................... 60

Certificate of Proficiency in Real Estate
Real Estate Core Courses ........................................ 6
Approved Electives ............................................. 9
ENGL 100/1A/1AMC .............................................. 3
Total for Certificate of Proficiency in Real Estate ................................... 18

Real Estate Courses

RE 140
Mortgage Loan Brokering and Lending
3 units; 3 hours Lecture
Recommended Preparation: RE 150, BUS 18; Eligibility for ENGL 100 and READ 100.

Teaches the use of principles and operations of the mortgage loan brokering industry and lending procedures. The emphasis is on the lending regulations and rules for residential property. The course will examine consumer lending, mortgage plans and procedures, mortgage loan processing, the role of a loan officer in establishing credit, obtaining and checking information, and servicing loans.

RE 150
Real Estate Principles
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times. Students may want to take this course more than once to prepare for the state sales agent license exam or for gaining personal knowledge about the field of Real Estate.

Teaches the fundamentals of the real estate field, practice and procedures in California. Subjects covered will be real estate licensing procedures, use of real estate forms, best practices in selling and buying real estate, and general aspects of real property ownership in California. Satisfies Salesperson’s license requirement and elective credit for Broker’s license. This course may be offered in a Distance-Learning Format.

RE 151
Real Estate Economics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.

An advanced course in economic principles governing activities of the real estate market, including real estate investment procedures, tax shelter and real estate exchanging. Post license or equivalent course. May substitute ACCT 1A for this course.

RE 152
Real Estate Practice
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Surveys real estate industry: personal ethics, marketing, contracts, tax aspects, qualifying buyers, financing, net sheets, closing costs. Overview also includes income property acquisition and management. May be taught in a Distance-Learning Format.

RE 153
Real Estate Finance
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents practical applied study and analysis of money markets, interest rates and real estate financing. Actual case illustrations demonstrate lending policies, problems, and rules involved in financing real property, focusing mainly on residential property. May be taught in a Distance-Learning Format.

RE 154A
Legal Aspects of Real Estate
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.

The history of Real Estate law in the State of California and the hows and whys, through legislation and court decisions, the application of the law has been affected by the changes in society and sociological needs of our population.

RE 154B
Advanced Legal Aspects of Real Estate
3 units; 3 hours Lecture
Prerequisite: RE 154A.
Recommended Preparation: Eligibility for ENGL 100.

An advanced course in legal aspects of real estate, covering acquisition and transfer of title to real property, methods of ownership, leasehold estate, usability, property restriction, trust deeds, enforceability of land sales contracts, contractual rights under deposit receipts, the broker’s role and title insurance. Satisfies elective credit for Broker’s license.

RE 155A
Real Estate Appraisal
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100.

A general first course in Real Estate appraisal. Basic principles of appraisals are covered as well as the three approaches to value: cost comparable sales, and income. Single family residential properties are emphasized, with the last part of the course being devoted to income properties.
RE 155B
Advanced Real Estate Appraisal
3 units; 3 hours Lecture
Prerequisite: RE 155A.
Recommended Preparation: Eligibility for ENGL 100.

Advanced course in appraising, applying principles learned in RE 155A to more complex properties. An applied study of techniques and problems of appraising stores, offices, apartments, manufacturing, condominiums, subdivisions, high technology buildings and special purpose properties. Emphasis will be on the income approach to value.

RE 156
Escrow
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces methods and techniques of escrow procedures for various types of business transactions with emphasis on real estate. The material covered should be of value to all those involved directly or indirectly with the escrow industry and those who are preparing to enter this field. Satisfies elective credit for Broker’s license. May be taught in a Distance-Learning Format.

RE 157
Property Management
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Teaches functions of real estate management and forms of real estate ownership, property analysis, management contracts and fees, marketing, special properties, accounting and budgeting, trust accounts, tenant-management relations, insurance, property maintenance. May be offered in a Distance-Learning Format.

RE 193
Real Estate Computer Applications
3 units; 3 hours Lecture
Prerequisite: RE 150.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Introduces the student to a broad overview of Internet, communications and software applications used in the day-to-day life of real estate and related professions. Topics begin with basic computer skills and progresses to the more complex tasks such as: e-commerce practices, real estate-specific software, trust fund handling, and escrow practices. May be offered in a Distance-Learning Format.

RE 195
Real Estate Common Interest Developments
3 units; 3 hours Lecture
Prerequisite: RE 150.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Covers the basics of managing, purchasing and selling of common-interest developments that are governed by homeowner associations, including condominiums. Provides broad knowledge of the legal requirements associated with common-interest developments and the business skills necessary to properly manage these developments. May be offered in a Distance-Learning Format.

SIGN LANGUAGE STUDIES
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Sign Language Studies Courses
SLS 1
Beginning American Sign Language
4 units; 4 hours Lecture
Corequisite: SLS 50L.

Introduction of the language with an emphasis on signing, receptive skills, signing parameters, as well as use of a basic glossing system for written ASL. Study of Deaf culture and Deaf community. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

SLS 2
Elementary American Sign Language
4 units; 4 hours Lecture
Prerequisite: SLS 1 or equivalent.
Corequisite: SLS 50L.

Continued practice of basic skills initiated in SLS 1. Further study of Deaf community and culture. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.
SLS 3
Intermediate American Sign Language
4 units; 4 hours Lecture
Prerequisite: SLS 2 or equivalent experience.
Corequisite: SLS 50L.
Development of intermediate SLS skills, including review of grammar. Deaf culture and community is presented through readings, videos and discussions in ASL. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

SLS 50L
Sign Language Studies Language Laboratory
1 - 4 units; 2 hours Laboratory
Repeatability: May be taken 4 times.
Receptive/expressive skill practice, fingerspelling, vocabulary and grammar drills done in Language Lab or independently. The recorded materials parallel the course content of SLS 1-2. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

SOCIOLOGY
Human Arts and Social Science Division
Nancy A. Brown, Division Dean
Division Office, Room 420
M. Teresa Pool, Program Chair, (831) 477-3254
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6297 or (831) 479-6348 for more information
http://www.cabrillo.edu/programs

Information for Sociology Majors
Sociology is the scientific or systematic study of human groups, behavior, and interaction. The sociological perspective is a powerful tool to critically analyze and understand contemporary society at the local, regional, national, and global levels. Sociology focuses on face-to-face social interactions as well as on large-scale social institutions such as economy, politics, education, mass media, religion, and the criminal justice system. Sociology’s subject matter ranges from the intimate family setting to the large, impersonal organization, from the world of work to the world of sport, from social divisions of class, race, and gender to cultural bonds based on shared values and traditions. It emphasizes how individual behavior is influenced by the structure of society and how individual behavior can change the structure of society. The program at Cabrillo provides a solid core curriculum that includes general and topical courses. All classes emphasize multicultural and gender issues.

A sociology major usually transfers to a four-year institution to complete a Bachelor’s Degree. Because of the broad scope of subject matter, sociology is excellent preparation for a wide range of career paths, including teaching, journalism, law, business, communications, non-profit management, corrections/law enforcement, social work, counseling, urban planning, public service, and politics.

MODEL PROGRAM FOR SOCIOLOGY

The following model program fulfills requirements for an A.A. Degree in Sociology at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses
SOC 1 Introduction to Sociology: Understanding Society ................. 3
SOC 2 Contemporary Social Problems .................................. 3
SOC 3 Sociology of Race and Ethnicity ................................ 3

Highly Recommended:
*MATH 12 Elementary Statistics ...................................... 4
*A transferable math course is required for transfer to CSU or UC. MATH 12 is specifically required by UC Berkeley and San Jose State University.

Approved Sociology Electives for the A.A. Degree in Sociology:
SOC 5 Sociology of Gender .................................................. 3
SOC 8 Sociology of Latinos and Latinas .................................. 3
SOC 47 Sociology of Crime and Deviance ............................... 3

Other Electives
ANTHR 2 Introduction to Anthropology: Cultural ...................... 3
COMM 12 Intercultural Communications ................................ 3
ECON 1A Introduction to Macroeconomics .............................. 3
OR
ECON 1B Introduction to Microeconomics ............................... 3
HIST 15 Recent American History ........................................ 3
HIST 17B United States History since 1865 ............................. 3
HIST 21B Chicano History since 1865 .................................... 3
HIST 29B African American History since 1865 ...................... 3
JOURN 21 Mass Communication ......................................... 3
PS 2 Comparative Government ............................................ 3
PSYCH 6 Introduction to Social Psychology ........................... 3
WS 5 La Mujer ..................................................................... 3
WS 10 Introduction to Women’s Studies ................................. 3

Associate in Arts Degree in Sociology
General Education ................................................................. 30
Sociology Core Courses ......................................................... 9
Approved Sociology Electives ............................................... 6-9
Other Electives ................................................................. 12-15
Total for A.A. Degree in Sociology ........................................ 60
Sociology Courses

**SOC 1**
**Introduction to Sociology: Understanding Society**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces basic sociological concepts, theories, and methods used to understand the dynamics of human interaction and society, including culture, stratification, social mobility, identity, and collective behavior as they affect individuals and society. May be offered in Distance-Learning Format.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN SOC2.

**SOC 2**
**Contemporary Social Problems**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines major social problems and alternative solutions. Topics considered may include poverty; race, sex, age discrimination; crime, deviance, and drug abuse; sexuality; health; education; economy; politics; and such global problems as population, pollution, and international conflict. Encourages development of a sociological perspective for thinking about controversial social issues. May be offered in Distance-Learning Format.

*Transfer Credit:* Transfers to CSU. Transfers to UC. CAN SOC4.

**SOC 3**
**Sociology of Race and Ethnicity**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the sociological dynamics of race and ethnicity in the United States, focusing on minority/majority relations. Explores the interplay between race, ethnicity, and social institutions. Topics may include immigration patterns, identity formation, and comparative race/ethnic relations. Emphasizes socioeconomic and gender issues.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**SOC 5**
**Sociology of Gender**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Analyzes masculine and feminine socialization and roles in society with an emphasis on concepts of the self, reciprocal role expectations, sociological interpretations of the causes and consequences of sex role differentiation, and how these impact the individual, society, and social change. May be offered in a Distance-Learning Format.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**SOC 8**
**Sociology of Latinos and Latinas**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the contemporary experiences of different Latino/a groups in the U.S., focusing on regional, national, and global processes. Examines how Latino/a groups have been incorporated into and have contributed to the development of the economic, political, social, and cultural systems in the United States. Emphasizes the interconnections among social processes, group interaction, and individual identity formation. Addresses how overlapping social categories such as national origin, race, class, gender, age, and sexuality shape the lives of Latinos/as. May be offered in a Distance-Learning Format.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**SOC 39A-Z**
**Sociological Studies**
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 4 times.

Provides intensive study of a particular area of sociology and encourages development of a sociological perspective for thinking about social issues. Course content will vary with each offering.

*Transfer Credit:* Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outlines (Special Studies form,) the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

**SOC 47**
**Sociology of Crime and Deviance**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Examines the social context of crime and deviance. Topics may include theories of crime and deviance; the criminal justice system; white collar, organized, and street crime; race, ethnicity, sex, gender, and crime; and legal implications of crime and deviance. Socioeconomic and multicultural issues emphasized throughout the course.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

SPANISH

**Business, English, and Language Arts Division**
James Weckler, Division Dean
Division Office-Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
www.cabrillo.edu/programs
Information for Spanish Majors

The Spanish department offers courses that serve as a basis for broad liberal education, for advanced work in languages, as preparation for the teaching credential, and as supplementary preparation for many careers. These include emergency services, the legal and medical professions, social work, business, foreign service, public relations, journalism, translation and interpretation. Training in the Spanish language is widely considered essential preparation for teachers in California’s public schools.

High school preparation: Any high school preparation in Spanish is desirable, but not essential, if the language is declared as a college major. For the Spanish major, continuous study of the language is expected, with the level of instruction dependant upon previous training. As a minimum requirement, the student should complete Spanish 4 and Spanish 10A by the end of the sophomore year. Some transfer colleges require foreign language majors to develop a minor, often suggesting another foreign language or English.

MODEL PROGRAM FOR SPANISH

The following model program fulfills requirements for an A.A. degree in Spanish at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses Units
SPAN 1 Beginning Spanish ......................... 4
OR
SPAN 16 Elementary Spanish for Spanish Speakers .. 4
SPAN 2 Elementary Spanish ......................... 4
OR
SPAN 17 Elementary Spanish for Spanish Speakers .. 4
SPAN 3 Intermediate Spanish ..................... 4
SPAN 4 Intermediate Spanish ..................... 4

Approved Electives
SPAN 5A Advanced Grammar and Composition ....... 3
SPAN 5B Advanced Grammar and Composition ....... 3
SPAN 6A Spanish Through Film .................... 3
SPAN 6B Spanish Through Film .................... 3
SPAN 10A Intermediate Spanish Conversation .... 3
SPAN 10B Advanced Spanish Conversation ......... 3
SPAN 25 Advanced Spanish ....................... 3
SPAN 26 Advanced Spanish ....................... 3
SPAN 30B Mexican Civilization and Culture .... 3
SPAN 50L Language Lab .......................... 4

Total for A.A. Degree in Spanish 60

Spanish Courses

SPAN 1
Beginning Spanish
4 units; 4 hours Lecture
Corequisite: SPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Develops speaking, listening comprehension, reading, and writing skills, with Spanish as the primary language of instruction. Students communicate in Spanish through class activities and begin to study Hispanic cultures. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 1, 2, 3, 4 combined with SPAN 16 & 17-maximum credit-1 series. SPAN 1AB, 1, 16 combined-maximum credit-1 course. CAN SPAN4.

SPAN 1A
Beginning Spanish-First Half: Destinos
2 units; 2 hours Distance Ed video one-way (TLCRS).
Equivalent to the first half of Spanish 1. Development and practice of elementary speaking, listening, reading, and writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 1AB, 1, 16 combined-maximum credit-1 course SPAN 1A & 1B are equivalent to SPAN 1-both must be taken to receive credit.

SPAN 1B
Beginning Spanish-Second Half: Destinos
2 units; 2 hours Lecture
Prerequisite: SPAN 1A or equivalent.
Equivalent to the second half of Spanish 1. Development and practice of elementary speaking, listening, reading, and writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 1AB, 1, 16 combined-maximum credit-1 course SPAN 1A & 1B are equivalent to SPAN 1-both must be taken to receive credit.

SPAN 2
Elementary Spanish
4 units; 4 hours Lecture
Prerequisite: SPAN 1, or two years of high school Spanish with a grade of "C" or better, or the equivalent.
Corequisite: SPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills, with Spanish as the primary language of instruction. Students communicate in Spanish through class activities and continue study of Hispanic cultures. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 1, 2, 3, 4 combined with SPAN 16 & 17-maximum credit-1 series. SPAN 2, 2A B & 17 combined - maximum credit-1 course. CAN SPAN4.
SPAN 2A
Elementary Spanish—First Half
2 units; 2 hours Directed study.
Prerequisite: SPAN 1, or SPAN 1A and 1B, or two years of high school Spanish, or equivalent skills.
Equivalent to the first half of SPAN 2. Expansion and practice of elementary speaking, listening, reading, and writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 2A & 2B are equivalent to SPAN 2-both must be taken to receive credit. SPAN 2, 2AB & 17 combined—maximum credit—1 course.

SPAN 2B
Elementary Spanish—Second Half
2 units; 2 hours Lecture
Prerequisite: SPAN 2A or equivalent skills.
Equivalent to the second half of SPAN 2. Expansion and practice of elementary speaking, listening, reading, and writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 2A & 2B are equivalent to SPAN 2-both must be taken to receive credit. SPAN 2, 2AB & 17 combined—maximum credit—1 course.

SPAN 3
Intermediate Spanish
4 units; 4 hours Lecture
Prerequisite: SPAN 2 or equivalent.
Corequisite: SPAN 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Further develops skills acquired in first-year Spanish and Reviews and expands grammar and vocabulary. Students study Hispanic cultures through reading and discussion of literary and cultural texts and develop writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN SPAN8.

SPAN 4
Intermediate Spanish
4 units; 4 hours Lecture
Prerequisite: SPAN 3 or equivalent.
Corequisite: SPAN 50L.
Students study more advanced structures and vocabulary with increased emphasis on discussion and analysis of literary and cultural texts and further develop writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN SPAN10.

SPAN 5A
Advanced Grammar and Composition
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Study of problematic components of Spanish grammar through exercises, extensive writing practice, reading, and oral presentations. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 5B
Advanced Grammar and Composition
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Study of problematic components of Spanish grammar through exercises, extensive writing practice, reading, and oral presentations. SPAN 5A is not prerequisite to SPAN 5B. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 6A
Spanish Through Film
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Advanced study of written and spoken Spanish through discussion and written analysis of selected Latin American films.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 6B
Spanish Through Film
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Advanced study of written and spoken Spanish through discussion and written analysis of selected Spanish films.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 10A
Intermediate Spanish Conversation
3 units; 3 hours Lecture
Prerequisite: SPAN 2 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Development of conversational skills with attention to accuracy, vocabulary, and pronunciation. Discussion of culturally relevant topics and situations.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 10B
Advanced Spanish Conversation
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
Develops conversational skills at the advanced level of proficiency with attention to accuracy, vocabulary, and idiomatic use. Students discuss culturally relevant topics and situations drawn from written and audio-visual sources.
Transfer Credit: Transfers to CSU. Transfers to UC.
SPAN 16
Elementary Spanish for Spanish Speakers
4 units; 4 hours Lecture
Recommended Preparation: Listening comprehension at minimum of intermediate level. No prior formal study of Spanish required.
For students with Spanish-speaking backgrounds who have little or no formal language training. Development of correct Spanish usage through speaking, reading and writing. Awareness of Hispanic culture is emphasized.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 1AB, 1, 16 combined-maximum credit–1 course. SPAN 16 & 17 combined with SPAN 1, & 2- maximum credit–1 series.

SPAN 17
Elementary Spanish for Spanish Speakers
4 units; 4 hours Lecture
Prerequisite: SPAN 16 or equivalent experience.
Further development of correct Spanish usage through speaking, reading and writing. Reading selections reflect the diversity of Hispanic culture.
Transfer Credit: Transfers to CSU. Transfers to UC with limits: SPAN 16 & 17 combined with SPAN 1 & 2 - maximum credit–1 series. SPAN 2, 2AB & 17 combined–maximum credit–1 course.

SPAN 20A-Z
Practical Spanish for Professionals and Service Personnel
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.
An entry level course designed for professionals and service personnel working with the Spanish-speaking public.
Transfer Credit: Transfers to CSU: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the transfer campus.

SPAN 25
Advanced Spanish
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Reading and discussion in Spanish and Latin American prose. Intensive practice in hearing, speaking, reading and writing Spanish. Critical analytical written work is the primary means of evaluating student performance in this course. Honors option.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 26
Advanced Spanish
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 30B
Mexican Civilization and Culture
3 units; 3 hours Lecture
Prerequisite: SPAN 4.
Recommended Preparation: Eligibility for ENGL 100.
A survey of Mexican culture from the pre-hispanic period to contemporary life. Focus on art, literature, history and politics. Conducted in Spanish.
Transfer Credit: Transfers to CSU. Transfers to UC.

SPAN 50L
Spanish Language Laboratory
1 - 4 units; 2 hours Laboratory
Repeatability: May be taken 4 times. A maximum of four units may be accumulated.
Oral/aural practice, grammar drills and writing done in the Language Lab or independently. The recorded materials parallel the course content of Spanish 1-4. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

STROKE AND ACQUIRED DISABILITY CENTER
Health, Wellness, Physical Education and Athletics Division
Kathleen Welch, Division Dean
Division Office, Room 1102
Debora Bone, Stroke Center Director,
(831) 425-0622
Call (831) 425-0622 for more information
http://www.cabrillo.edu/programs

The Stroke and Acquired Disability Center offers a series of special classes for adults with functional loss, and for caregivers, including mobility and fitness skills, independent living skills, speech, hearing and language skills, and dealing with disabilities. Classes are located in the Stroke Center in Delaveaga Park, Santa Cruz. Transportation is available through Metro Santa Cruz. A physician’s approval will be required. Call (831) 425-0622 for enrollment information.
Stroke and Acquired Disability Center Courses

SC 266
Applied theories of Disabilities for the Physically Limited
½ - 4 units; 1 hour Lecture
Repeatability: May be taken 4 times. May be repeated when required to meet performance criteria.
Individual and group counseling designed to assist the students of the Stroke Center and members of their families to understand disabilities, to deal effectively with them, to enhance their self-esteem, and to make maximum use of community resources. This course is designed for students with physician certification of disability, assessment of needs, and an individual education plan. Course offered at the Stroke Center.

SC 267
Orientation to the Community for the Physically Limited
½ - 4 units; 1 hour Lecture
Repeatability: May be taken 4 times. May be repeated when required to meet performance criteria.
Students with physical disabilities will participate in educational, recreational and employment opportunities in the community. Course includes an orientation class at the Stroke Center and field trips into the community. This course is designed for students with physician certification of disability, assessment of needs, and an individual education plan. Course offered at the Stroke Center.

SC 268
Independent Living Skills for the Physically Limited
½ - 10 units; 1 hour Lecture
Repeatability: May be taken 4 times. May be repeated when required to meet performance criteria.
Studies all aspects of independent living skills necessary for physically limited students to gain successful reintegration into the community. A multidisciplinary program team-taught according to Individual Education Plans including the following learning opportunities: 1) Individual and group counseling 2) Identification, compensatory management and redemption of all activities of daily living including speech/language communication and mobility. Physician approval required with certification of disability, assessment of needs and Individual Education Plan (IEP). Course offered at the Stroke Center.

SUBJECT/SPECIAL STUDIES/ CAREER WORK EXPERIENCE EDUCATION

Recognizing that the classroom presentation does not always allow sufficient time for consideration and elaboration of special topics of interest to instructor and student, Cabrillo College offers three kinds of special study courses. These courses allow the student to explore special aspects of subject matter with one or more faculty members or have an opportunity to review in greater detail the material covered in class. Four year colleges and universities may limit the number of special study units which are accepted. See a counselor for more information. Special Studies Courses must be initiated by a faculty member and the student must complete registration during the first 50% of the (fall or spring) semester meeting dates; please see Division Office staff for precise dates for summer Special Studies.

See the following page of this Catalog for more information about the Career Work Experience Education program.

Subject/Special Studies/Career Work Experience Education Courses

SUBJECT 22
Special Studies (Honors)
1–3 units; 1 hour Lecture
Prerequisites: Nomination by faculty member, completion of 12 units or more at Cabrillo with 3.5 or better average in the subject area. Completion of basic courses in subject area.
Repeatability: May be taken 4 times. Limit to 4 units a semester per department.
A directed studies course. An opportunity for students with special abilities to meet with faculty members to discuss and investigate topics of particular interest. (Subject 22 sections will be organized as needed in each of the departments and identified by the department name; e.g., History 22, Political Science 22, Zoology 22.) Subject 22 transfer credit is limited to maximum of 12 units.
Transfer Credit: Transfers to CSU; UC with conditions: Students must retain a copy of the Special Studies form, the course syllabus, and work completed for this course. Credit for this course is contingent upon a review of the course materials by the UC transfer campus.

SUBJECT 80S
Special Studies
1–3 units; Number of hours equal to those in a 1-unit lecture course for each unit
Prerequisite: Nomination by faculty member.
Repeatability: May be taken 4 times. Limited to four units a semester per department.
A directed studies course. Opportunity for students singly or in groups to investigate special areas of interest through projects, seminars, or organized classes. This course carries transfer subject matter credit and elective credit at four year institutions. Courses will be designated by department.
Transfer Credit: Transfers to CSU; UC with conditions: Students must retain a copy of the Special Studies form, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.
SUBJECT 180S
Special Studies
1–3 units; Number of hours equal to those in a 1-unit lecture course for each unit. Limited to three units a semester per department.
Prerequisite: Nomination by faculty member. ENGL 100 and/or Math 154 will be recommended if a specific project/course requires associate degree level language and/or computer skills.
Repeatability: May be taken 4 times.
A directed studies course. Opportunity for students in groups to investigate special areas of interest through projects, seminars, or organized classes. Courses will be designated by department.

CWEE 99G
General Work Experience Education
1–3 units; 1.8 hours Work Experience
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Students may earn up to 6 units of credit in service learning or general CWEE through any combination or repetition of CWEE 99G, CWEE 199G, CWEE 99SL and CWEE 199SL.
General Work Experience Education is an on-the-job educational experience designed to help students develop knowledge of workplace culture and career awareness. The job need not be related to the student’s educational program or career goal. The program combines classroom instruction with paid or volunteer on-the-job experience, utilizing the community’s business, industry and government agencies as expanded educational sites. The student may receive one unit per 60 hours unpaid work experience or per 75 hours of paid work experience per semester.
CWEE 99G is designed for student who intend to transfer to a four-year institution that accepts Work Experience Education.
Transfer Credit: Transfers to CSU with limits: Work experience transfer credit is limited at some CSU campuses; please check with a Cabrillo College counselor or the director of the Work Experience program.

CWEE 99C
Career Work Experience Education
½–4 units; 1.8 hours Work Experience
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. Students may earn up to 16 units of credit in career work experience through any combination or repetition of CWEE99C and CWEE199C.
Career Work Experience Education is designed for students who have decided on a career and/or major, who are ready for on-the-job experience. Career Work Experience provides supervised employment at a work site that is directly related to the student’s career goal, and along with other on-campus lecture and laboratory courses, is an integral part of the student’s major. The student may receive one unit per 60 hours of unpaid work experience or 75 hours of paid work experience per semester. CWEE 99C is designed for students who intend to transfer to a four-year institution that accepts Work Experience Education.
Transfer Credit: Transfers to CSU with limits: Work experience transfer credit is limited at some CSU campuses; please check with a Cabrillo College counselor or the director of the Work Experience program.

THEATRE ARTS/DRAMA
Visual, Applied, and Performing Arts Division
Dan Martinez, Division Dean
Division Office, Room 301
Skip Epperson, Program Chair, (831) 479-6168
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs
Information for Theatre Arts/Drama Majors

The study of Theatre Arts/Drama requires creative technical and performance skills that benefit students in their individual relationships with others in social and artistic environments. Students selecting to major and minor in Theatre Arts/Drama frequently choose this area of study for three reasons: (1) to enter the professional fields of theatre, film, television, radio, and modeling; (2) to enter communication fields in teaching, business, industry and law; (3) to pursue personal goals or leisure activity in community events.

Opportunities for careers in theatre arts/drama are found in acting, theatre lighting, costume design, set production, scenery design, scene painting, television production, theatre production management, stage management, teaching and directing.

MODEL PROGRAM FOR THEATRE ARTS/DRAMA

The following model program fulfills requirements for an A.A. Degree in Theatre Arts/Drama at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

Core Courses

Select 18 units from:

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Approved Electives

Select 8 units from:

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Associate in Arts Degree in Theatre Arts/Drama

General Education ........................................... 30
Core Courses ............................................... 18
Approved Electives ....................................... 8
Electives ................................................... 4
Total for the A.A. Degree in Theatre Arts/Drama .... 60

Theatre Arts/Drama Courses

TA 7
Introduction to Acting
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents the basic techniques of performance on stage. The student will develop stage presence and explore movement, voice, improvisation, scene interpretation and other aspects of the actor in production. For non-theatre majors.

Transfer Credit: Transfers to CSU. Transfers to UC.

TA 8
World Theatre
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the theatrical traditions of World cultures and their influence on Western theatre. Racial, ethnic, political and social diversity as reflected in major theatrical works. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC.

TA 9
Appreciation of Theatre Arts
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Covers the historical, literary, technical and performance aspects of theatre, film, TV and performance art from earliest time to the present. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU. Transfers to UC.

TA 10A
Basic Acting Techniques
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 2 times.

Presents the fundamentals of the acting process to students with little or no acting experience. The student will discover and explore major theories and techniques of acting, improvisation, stage movement, vocal projection, concentration, motivation, characterization, rehearsal, and performance. The class will be taught through lectures and scene work.

Transfer Credit: Transfers to CSU. Transfers to UC. CAN DRAM 8.

TA 10B
Intermediate Acting
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: TA 10A or equivalent skills.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 2 times. (With satisfactory progress.)

Studies acting with emphasis upon more advanced theories and practices, techniques and styles, and upon the methods of Stanislavsky, Brecht, and Meisner.

Transfer Credit: Transfers to CSU. Transfers to UC.
TA 10C
Advanced Acting
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: TA 10B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)

Presents intensive script analysis, scene study (period and modern) and critiques using in-class rehearsals and performances of student selected scenes.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 11
Voice and Diction for the Theatre
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Introduces the study and practice of using the voice effectively for drama. Breath, diction, articulation, emphasis and interpretation will be covered. Will be taught through readings, performances and improvisation and uses the phonetic alphabet, as well as acting techniques.
Transfer Credit: Transfers to CSU. Transfers to UC. CAN DRAM6.

TA 12A
Movement for Actors
2 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.

A physical class, held on the stage, designed to provide actors with confidence, strength and grace in performance. Basic instruction in all varieties of stage movement including dance, mime, stage combat (hand-to-hand and weapons), t’ai chi and creative movement. Scene study and character work.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 12B
Intermediate Movement for Actors
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: TA 12A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Presents movement in relation to scene study, directorial blocking, props, character analysis. Period styles, contact scenes.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 13A
Beginning Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)

Covers the creation of nonscripted theatre through improvisational scenes and theatre games. Developing group consciousness and trust work toward ensemble techniques.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 13B
Intermediate Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: TA 13A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times.

Studies improvisation as both theatre training and a performing art; including theatre games, styles, techniques for performance, motivation and characterization.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 14
The Art of Play Reading
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)

Covers reading, discussion, and interpretation of plays, films, radio and television in both the comic and serious genre. Materials will be drawn from both modern and historical scripts, as well as from all parts of the world. Emphasis on how to read a play and understand its unique structure.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 15
Styles of Acting/Playing Shakespeare
3 units; 4 hours Lecture
Prerequisite: TA 10A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 2 times. (With satisfactory progress.)

Presents an intensive analysis of Shakespearean texts, particularly verse. Designed to sensitize and aid the actor in developing a rehearsal process. Performance of monologues and scenes. Prior experience in a beginning to intermediate acting class is recommended.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 17
Introduction to Directing
3 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 3 times.

Presents principles of basic directing, the history of the director in European and American theatre, scene analysis and interpretation.
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 18
Narrative Performance
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: TA 7 or TA 10A or equivalent experience; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times. (With satisfactory progress.)

Examines dramatic literature from texts, through rehearsals of voice usage and staging, to performance. Lectures, practice sessions, casual and formal readings and production.
Transfer Credit: Transfers to CSU. Transfers to UC.
TA 19  
**Baile Folclorico**  
1 unit; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Prepresents selected regional dances of Mexico taught for technical and cultural understanding. Emphasis is given to the origin, development, styling and performance of the material.  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 27  
**Theatre Production Workshop**  
1 - 3 units; 1 hour Lecture, 4 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Prepresents hands-on backstage preparation for the current TA 29 stage production, including practical problem solving in scenery construction, lighting, props, costumes, make-up, sound, management and public relations.  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 28  
**Backstage Theatre**  
3 units; 2 hours Lecture, 2 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 2 times. (With satisfactory progress.)  
Surveys all components of theatre technology (stagecraft) including lighting, sound, set construction, painting, costumes, stage management, makeup and properties. Students are given hands-on experience in all areas.  
Transfer Credit: Transfers to CSU. Transfers to UC. CAN DRAM12.

TA 29  
**Rehearsal and Performance**  
1 - 3 units; 1 hour Lecture, 6 hours Laboratory  
Corequisite: TA 28, TA 33, TA 34, TA 35, or TA 27 for a minimum of 1 unit.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Prepresents the rehearsal and performance of the Theatre Arts stage production for the current semester. Must audition and be cast in current Theatre Arts production.  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 31  
**Introduction to Design in the Theatre**  
3 units; 2 hours Lecture, 2 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 3 times. (With satisfactory progress.)  
Prepresents a wide exploration of design for the theatre, film, and video industries that includes projects in set, costume, lighting, and sound design.  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 33  
**Makeup and Masks**  
3 units; 4 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 3 times.  
Prepresents an introduction to the theory and practice of makeup for the stage. Practice in the design and application of straight, stylized character and other makeup techniques.  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 34  
**Costume Workshop**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Prepresents an introduction to costume design, theory and construction for the theatre. Includes costume support for the current Drama production (TA 27).  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 35  
**Scene Painting**  
3 units; 4 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Prepresents the study of basic scene painting techniques and materials, including illusionistic and faux painting methods, realization of color elevations, and painting furniture and props.  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 74  
**Introduction to Musical Theatre**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Prepresents basic techniques of musical theatre onstage; stage presence; training to overcome the particular problems of musical comedy: singing, acting and movement.  
Transfer Credit: Transfers to CSU. Transfers to UC.

TA 75  
**Summer Musical**  
1 - 3 units; 9 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (With satisfactory progress.)  
Prepresents the rehearsal and performance of musical and musical comedy literature with concentration on all aspects of the production related to performance. Audition required for enrollment. Enrollment subject to audition by summer musical staff.  
Transfer Credit: Transfers to CSU. Transfers to UC.
**TA 77**  
**Correlation of the Arts**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Studies similarities and differences in the visual arts, music, and theatre arts are studied from an interdisciplinary perspective. Presents topics in creativity, aesthetics, style, and historical context are presented from a variety of viewpoints. Develops an awareness, understanding, and respect for diverse cultures through lecture, performance, and demonstration.  
Transfer Credit: Transfers to CSU. Transfers to UC.

**TA 85A-Z**  
**Studies in Theatre Arts**  
1 - 3 units; 1 ½ hours Lecture, ½ hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times. (If area of investigation is different.)  
Specialized study of particular topic in Theatre Arts. The specific course content will be described in the Schedule of Classes.  
Transfer Credit: Transfers to CSU. Transfers to UC: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

**TA 250**  
**Theatre Arts Laboratory**  
½ units; 1 hour Laboratory  
Repeatability: May be taken 4 times.  
A supervised audio/video/computer lab class relating to other Performing Arts course curriculum. Designed to increase student skills and concepts. Each ½ unit lab section requires 16.6 hours of study. Credit/no credit only. Enrollment is permitted through the twelfth week of instruction.

**WELDING**  
**Natural and Applied Sciences Division**  
Wanda Garner, Division Dean  
Division Office, Room 701  
Gary Marcoccia, Program Chair, (831) 479-5705  
Counselor: (831) 479-6225 or (831) 479-6385 for appointment  
Watsonville Counselor: (831) 477-5134  
Call (831) 479-6328 for more information  
http://www.cabrillo.edu/programs

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**Welding Occupational Program**  
Welding Technology is an integral part of all industries that require the fabrication, maintenance and repair of metal structures. The Welding Technology program at Cabrillo is designed to prepare students for entry-level employment in welding and fabrication related industries, which include agriculture, construction, manufacturing, marine technology, and transportation. Interested students can pursue Skills Certificate options, continued education/re-training and qualification testing for those currently in welding related trades. In addition, American Welding Society certification testing is available. NOTES: (a) A mandatory materials fee of $25.00 for each course taken will be due during the first two weeks of the semester. (b) We strongly recommend completion of MATH 254 or equivalent knowledge before enrolling in Welding Technology courses. (c) Students who want to take additional courses to enhance their knowledge are encouraged to select from the following electives: BUS 15B, BUS 18, CG 54, CG 208, ENGR 5, ETECH 24, FT 7, W 155, W 190AZ, W 199C. (d) Due to safety concerns caused by the use of potentially hazardous equipment, students must be 18 years of age or older to enroll in any Welding course.

**Basic Welding Skills Certificate**  
Note: This certificate may be completed in two semesters.  

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester #1:</strong></td>
<td></td>
</tr>
<tr>
<td>W 151 Gas and TIG Welding</td>
<td>2</td>
</tr>
<tr>
<td>W 156 Sheet Metal Fabrication</td>
<td>2</td>
</tr>
<tr>
<td><strong>Semester #2:</strong></td>
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</tr>
<tr>
<td>W 150 Arc Welding</td>
<td>2</td>
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<tr>
<td><strong>W 152 Advanced Welding</strong></td>
<td>2</td>
</tr>
<tr>
<td>Total for Basic Welding Skills Certificate</td>
<td>8</td>
</tr>
</tbody>
</table>

**Advanced Welding Skills Certificate**  
Note: This certificate may be completed in four semesters.  

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester #1:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>W 152A Advanced Arc Welding</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>W 154 Pipe Welding</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Semester #2:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>W158 Welding Fabrication</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Semester #3:</strong></td>
<td></td>
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<tr>
<td><strong>W152B Advanced MIG Welding</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Semester #4:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>W152C Advanced TIG Welding</strong></td>
<td>1</td>
</tr>
<tr>
<td>Total for Advanced Skills Certificate</td>
<td>7</td>
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</tbody>
</table>

*Requires W 150 or 151 (or demonstrated skill equivalence)  
**Requires W 152 (or demonstrated skill equivalence)

**AWS**  
American Welding Society qualification testing is available through Cabrillo College Extension for individuals able to demonstrate skill equivalence at a level equal to or higher than W 152. Qualified welders should contact Ali Amercupan, AWS-SCWI for enrollment information (831) 479-6250.
Welding Courses

W 150  Arc Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and MATH 154.
Introduces basic arc welding skills with an emphasis on safety, oxy-acetylene cutting, shielded metal arc welding and GMAW (MIG) welding techniques.

W 151  Gas and TIG Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Presents a basic training in the flat and out of position welding of steels with the oxy-acetylene welding method, followed by the welding of steels, aluminum, and stainless steel with the GTAW process.

W 152  Advanced Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: W 150 or W 151 or demonstrated skill equivalence.
Recommended Preparation: Eligibility for ENGL 100 and MATH 154.
Continues training in arc and gas welding in various positions; introduces MIG welding, TIG welding, flux cored arc welding and flame cutting.

W 152A  Advanced Arc Welding
1 unit; 3 hours Laboratory
Prerequisite: W 152 or demonstrated skill equivalence.
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Presents continued advanced training in SMAW (Stick) welding techniques, focusing on the 3G and 4G positions with low hydrogen electrodes, enabling students to pass sample AWS welding code tests.

W 152B  Advanced MIG Welding
1 unit; 3 hours Laboratory
Prerequisite: W 152 or demonstrated skill equivalence.
Recommended Preparation: Eligibility for ENGL 100 and MATH 154.
Continues advanced training in GMAW (MIG) welding techniques, focusing on all positions and sheet steel gages, in preparation for light gage fabrication and body-fender repair applications.

W 152C  Advanced TIG Welding
1 unit; 3 hours Laboratory
Prerequisite: W 152 or demonstrated skill equivalence.
Recommended Preparation: Eligibility for ENGL 100 and MATH 154.
Continued advanced training in GTAW (TIG) welding techniques, focusing on all position welding of sheet gauge materials in steel, aluminum and stainless steels.

W 154  Pipe Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: W 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Repeatability: May be taken 2 times.
Continues advanced training in SMAW and GTAW welding with emphasis on out of position pipe and tube welding techniques.

W 155  Ornamental Ironwork
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and MATH 154.
Repeatability: May be taken 3 times.
Introduces the practical applications of traditional and modern metalworking techniques focusing on the history, development, and present-day practices used in the fabrication of architectural ornamental ironwork. Applied safety, MIG welding, oxy-fuel welding, plasma cutting, metal forming and traditional hot forging practices are included.

W 156  Introduction to Sheet Metal Fabrication
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100, READ 100 and MATH 154.
Presents an introduction to and basic training in metal forming, fastening and blueprint reading skills. Students will develop thorough knowledge of use and application of related equipment.

W 158  Welding Fabrication
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: W 150 or W 151.
Recommended Preparation: Eligibility for ENGL 100, READ 100, and MATH 154.
Repeatability: May be taken 2 times.
Presents advanced training in steel fabrication utilizing state-of-the-art welding processes with emphasis on blueprint interpretation and welding codes.

W 190A-Z  Special topics in Welding
½ - 5 units; ½ hour Lecture
Repeatability: May be taken 4 times. Any particular special topics course may be repeated a total of 4 times.
Selected topics in Welding not covered by regular catalog offerings. Each special topic course will be announced, described, and given its own title and letter designation in the Schedule of Classes. The structure and format of the classes will vary depending on the subject matter.
WOMEN'S STUDIES
Human Arts and Social Sciences Division
Nancy A. Brown, Division Dean
Division Office, Room 420
Michael Mangin, Program Chair, (831) 479-6227
Counselor: (831) 479-6225 or (831) 479-6385 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6348 or (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Information for Women's Studies Majors

The Women's Studies major is an interdisciplinary major which gives students the opportunity to study women's experiences and questions of gender from a variety of perspectives, including feminist theory, history, religion, literature, cross cultural studies, psychology, sociology, sexuality, women and work, and women and the family. Courses in this major enrich the student's knowledge of the historical, social, and cultural contributions of women from many ethnic groups all over the world, provide a feminist perspective on the study of sexual and racial oppression, and promote a rigorous scholarly inquiry of women's rapidly changing economic, legal, and political position in society. The program also emphasizes personal growth through student participation and collaboration. Women's Studies courses attempt to define a society free of sexual, ethnic, age, and class barriers.

Because the major is interdisciplinary, it gives students a comprehensive liberal arts background and prepares them for upper division work in Women's Studies and many other humanities and social science majors at four-year colleges and universities. Students may also earn an A.A. Degree from Cabrillo with a Women's Studies emphasis. Course work in this major leads to careers in the health professions, law, education, counseling, political and social work, journalism, public relations and communications, and public administration, among many others.

MODEL PROGRAM FOR WOMEN'S STUDIES

The following model program fulfills requirements for an A.A. Degree in Women's Studies at Cabrillo College. Specific lower division major preparation at four-year public institutions in California can be found at www.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WS 6 Women's Changing Lives International Perspective</td>
<td>3</td>
</tr>
<tr>
<td>WS 10 Introduction to Women's Studies</td>
<td>3</td>
</tr>
<tr>
<td>WS 11 Feminist Theory and Methodology</td>
<td>3</td>
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Approved Electives

Select 12 units from the following:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
</tr>
<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>ECE 31</td>
<td>Child Growth and Development</td>
</tr>
<tr>
<td>ENGL 1A/AMC</td>
<td>College Composition when offered as Writing About Women</td>
</tr>
<tr>
<td>ENGL 1B/BMC</td>
<td>Composition and Literature: Emphasis on Women Writers</td>
</tr>
<tr>
<td>ENGL 30A</td>
<td>American Literature</td>
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<tr>
<td>ENGL 30B</td>
<td>American Literature</td>
</tr>
<tr>
<td>ENGL 33</td>
<td>Introduction to Poetry</td>
</tr>
<tr>
<td>ENGL 46A</td>
<td>Major British Writers I</td>
</tr>
<tr>
<td>ENGL 46B</td>
<td>Major British Writers II</td>
</tr>
<tr>
<td>HIST 14</td>
<td>Women in America</td>
</tr>
<tr>
<td>PE 39</td>
<td>Beginning Self Defense for Women</td>
</tr>
<tr>
<td>PE 53</td>
<td>Weight Training</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
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<tr>
<td>PSYCH 8</td>
<td>Introduction to Developmental Psychology</td>
</tr>
<tr>
<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>SOC 5</td>
<td>Sociology of Gender</td>
</tr>
<tr>
<td>WS 5</td>
<td>La Mujer</td>
</tr>
<tr>
<td>WS 7</td>
<td>Psychology of Women</td>
</tr>
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</table>

Any course meeting the Multicultural Studies requirement.

Associate in Arts Degree in Women's Studies

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>General Education</td>
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<tr>
<td>Women's Studies Core</td>
<td>9</td>
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<tr>
<td>Approved Electives</td>
<td>12</td>
</tr>
<tr>
<td>Electives</td>
<td>9</td>
</tr>
<tr>
<td>Total for A.A. Degree in Women's Studies</td>
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</tr>
</tbody>
</table>
Women's Studies Courses

**WS 5**
**La Mujer**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Offers an interdisciplinary study of Latinas that reviews the impact of social institutions such as family, religion, work, education, on their daily lives. An exploration of their history, contemporary social roles, and personal identity. Contribution to community, cultural practices, values, and political identities will be examined.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**WS 6**
**Women's Changing Lives in International Perspective**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.

An interdisciplinary study of the lives of women in Africa, Central America, Asia and the Middle East. Focus is on understanding the socioeconomic conditions of each area as they affect women's roles in the family, the workplace and society.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**WS 7**
**Psychology of Women**
3 units; 3 hours Lecture
Recommended Preparation: PSYCH 1 and ENGL 1A /1AMC.

Explores contemporary theories, findings, and social issues regarding the psychology of women. Emphasis is on understanding how gender role socialization influences women's beliefs and behaviors across the life span. Topics include achievement, intimate relationships, motherhood, mental health, violence against women, and empowerment.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**WS 8**
**Women's Health Care**
½ - 1 units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100.

Designed as an overview of some of the issues in women’s health care, including historical and present day forces that impact women today. Social, political, psychological, physiological, and economic aspects will be looked at. Through a feminist perspective, issues such as gynecological topics, reproduction, birth control, reproduction rights, rape, cancer, CFIDS, AIDS, the physical and emotional aspects of codependency, sexuality, and aging will be examined. Personal experiences will be used as learning tools. Myths, facts, and women’s health politics will be examined. Class will teach women about their bodies and empower them to deal effectively with the health care system.

*Transfer Credit:* Transfers to CSU. Transfers to UC with limits: WS 8 combined with HS 10 & 20-maximum credit–1 course.

**WS 10**
**Introduction to Women's Studies**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Explores the status of women's lives using art, literature, history, media studies, sociology, psychology, and collective action for social change. Topics include political and economic forces defining women's positions; the psychology and sociology of women's lives; music, creativity, power, authority and feminist theory.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**WS 11**
**Feminist Theory and Methodology**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.

An introduction to some of the classic and contemporary texts in feminist theory. The course also uses feminist theory to investigate the historical and social conditions of women around the world and the development of various women’s movements.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**WS 13**
**Women in Religion and Myth**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100.

The study of the nature and functions of feminine deities, and an examination of the images and position of women within various mythologies and religious traditions.

*Transfer Credit:* Transfers to CSU. Transfers to UC.

**WS 39A-Z**
**Special Topics: Womens Studies**
½ - 3 units; ½ hour Lecture
Recommended Preparation: Eligibility for ENGL 100.

An intensive study of interdisciplinary aspects of women’s studies. Course content will vary with each offering. During any school session, one or more such courses may be offered, each one having its own title and being designated by its own permanent letter.

*Transfer Credit:* Transfers to CSU. Transfers to UC with conditions: Students must retain a copy of the course outline, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.
WORLD LANGUAGES

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 501
H. Jay Siskin, Program Chair, (831) 477-3207
Counselor: (831) 479-6385 or (831) 479-6225 for appointment
Watsonville Counselor: (831) 477-5134
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

World Languages Transfer Information
Chinese, French, German, Italian, Japanese, Sign Language Studies, Spanish

The Department of World Languages offers courses which serve as a basis for broad liberal education for advanced work in languages, as preparation for the teaching credential, and as supplementary preparation for many careers. Cabrillo language courses provide preparatory work for language majors and minors, satisfy requirements of other majors, and fulfill general education requirements.

High School Preparation: Any high school preparation in world language is desirable if the language is declared as a college major. Continuous study of the language is expected, with the level of instruction dependent upon previous training. As a minimum requirement, the student should complete course 4 of the language by the end of the sophomore year. Some transfer colleges require world language majors to develop a minor, often suggesting another world language or English.

Transfer students have three sets of requirements to consider for successful transfer to UC, CSU and most private institutions. They are: 1.) admission requirements to the specific university, 2.) general education requirements at the specific university, and 3.) lower division preparation in the major (courses needed to be admissible to the major.) To ensure that you understand and include all of the above in your educational plan, it is essential to meet with a counselor early in your attendance at Cabrillo College. Information on equivalencies for general education and major requirements at UC and CSU is available at www.assist.org.
Faculty and Administrators

Date of original appointment follows name.

ABBOTT, JAMIE (1978) ........................................ Art-Studio
  B.F.A., M.F.A., San Francisco Art Institute

ACOSTA, EVA (1990) ........................................ Counselor
  B.A., M.S., California State University, Sacramento

ALANCRAIG, MARCY (1991) ................................. English
  B.A., University of California, Santa Cruz;
  M.A., Antioch University West

ALBERTSON, SARAH (2005) ................................. Theatre Arts/Drama
  B.A., Antioch College
  M.F.A., Yale University, School of Art
  M.F.A., Yale University, School of Drama

ALDERSON, ANTOINETTE (2006)
  A.A., Chabot College, Hayward
  B.A., California State University, Stanislaus

ALDRIDGE, Bonnie (1993) ................................. Children’s Center Teacher
  B.A., California State University, Chico

AMBROSINI, DAVID (1988) ................................. Business
  B.S., M.B.A., San Jose State University

ANDERSON, CHERYL (1994) ............................... Music
  A.B., West Liberty State College, West Virginia; M.M.E. University of Northern Colorado

ARD, PEGI (1992) .............................................. Vice President, Business Services
  A.S., West Valley College; B.A., San Jose State University

ARNESTY, REBECCA (1986) ................................. Dental Hygiene
  B.S., M.P.H., University of California, Los Angeles

BAER, WINIFRED (1998) ................................. English
  B.A., University of California, Santa Cruz;
  M.A., University of California, Santa Barbara

BALOGH, DAVID (1972) .............................. Geography/Meteorology
  B.A., M.A., California State University, Northridge;
  Graduate Study, University of California, Los Angeles

BÁRALES, VICTORIA (2005) ................................. English
  B.A., University of California, Santa Barbara;
  M.A., San Francisco State University;
  M.A., University of California, Santa Cruz;
  Ph.D. (anticipated 05), University of California, Santa Cruz.

BARKEY, CHERYL (2000) ................................. History
  B.A., University of California, Santa Cruz,
  M.A., Ph.D., University of California, Davis

BELLIVEAU, KIM (1991) ................................. Physical Education
  B.A., William Penn College; M.A., University of Connecticut

BLAUSTEIN, JOSH (2005) ............................... Chemistry
  B.S., California Polytechnic University, San Luis Obispo;
  Ph.D., University of California, Santa Cruz

BLOOM, BARBARA (1987) ................................. English
  B.A., University of California, Santa Cruz;
  M.A., San Francisco State University

BONE, DEBORA (1997) ................................. Stroke and Acquired Disability Center
  B.A., Swarthmore College, Pennsylvania;
  R.N., Ecole Le Bon Secours, Geneva, Switzerland;
  Ph.D., University of California, San Francisco

BOOTH, MICHAEL (2007) ................................. Accounting
  M.B.A., St. Mary’s College
  B.S., University of San Francisco

BOWEN, JOHANNA (1995) ............................. Director, Library and Learning Resources
  B.A., M.S., University of Illinois; M.P.A., Syracuse University

BRADY, GERLINDE (2001) ............................... Computer and Information Systems
  M.A., University of Hannover; Instructor Certificate

BRAUNHUT, EDWARD (1999) .......................... Mathematics
  B.A., M.A., University of California, Santa Cruz

BREZNER, CELIA Z. (1998) ............................. Adaptive Physical Education
  B.A., University of California, Santa Cruz;
  M.A., San Jose State University

BROGAN, ROSEMARY (1976) ............................ History
  B.A., Mt. St. Mary’s College, Los Angeles;
  M.A., San Jose State University

BROWN, DOUGLAS (1977) .............................. Physics
  B.A., University of California, Santa Barbara;
  M.A., Ph.D., University of Colorado

BROWN, NANCY A. (1987) ............................... Dean, Human Arts and Social Sciences
  B.A., M.A., San Francisco State University

BROWN, RAYMOND (1975) ............................. Music
  B.M., Ithaca College, New York;
  M.S., Long Island University, New York

BROWN, SUSAN (1981) ................................. Music
  B.M., Ithaca College, New York;
  M.F.A., Sarah Lawrence College;
  Graduate Study, University of Colorado

BRUCKNER, SUSAN (2007) ............................... Music
  B.M., Eastman School of Music;
  M.M., San Francisco Conservatory

BRUNGRABER, LEE (1996) ............................. Nursing
  B.S.N., University of Delaware;
  M.S., University of Colorado

BUELNA, ENRIQUE (2005) .............................. History
  B.A., University of California, Santa Barbara;
  M.P.A., University of Washington;
  Ph.D. (in progress), University of California, Irvine.

CAMARA, JASON (2002) ................................. Chemistry
  B.S., Ph.D., University of California, Santa Cruz

CANTU, ARTURO (1992) ............................... Counselor
  B.S., M.S., California State University, Sacramento

CARDONA, LUZ (1994) ................................. Children’s Center Teacher
  B.A., M.A., California State University, Monterey Bay

CAROTHERS, JOHN H. (1987) ........................... Biology
  B.A., University of California, Santa Cruz;
  Ph.D., University of California, Berkeley

CARTER, ERIC (1996) ................................. Culinary Arts and Hospitality Management
  B.A., San Jose State University

CASPER, MEGAN (2000) ................................. Mathematics
  B.A., University of California, Santa Cruz;
  M.S., Western Washington University
CASS, JENNIFER (2004) .................................. Mathematics
  B.A., University of California, San Diego;
  M.M., University of Rochester;
  M.A., University of California, Santa Cruz

CHAO, MICHELLE (2002) ............................ Early Childhood Education
  A.A., Pierce Community College;
  B.A., University of California, Santa Cruz;
  M.A., San Jose State University

CHEN, MAY K. (2007) .......................... Vice President/Asst. Superintendent, Student Services
  B.S., Chung Yuan University
  M.S., Ph.D., Iowa State University

CHINN, AURELIE T. (2002) ................. Academic Specialist
  B.S.N., M.S.N University of Wisconsin

CLARK, BRIDGETE (2000) ....................... Dental Hygiene
  A.S., Madison Area Technical College, Wisconsin;
  B.S., Marquette University, Wisconsin;
  D.D.S., University of the Pacific

CLOSE, CLAUDIA (1994) ...................... Philosophy
  B.A., California State University, San Bernardino;
  M.A., University of California, Riverside

COE, VIRGINIA (1985) ......................... English
  B.A., University of California, Berkeley;
  M.A., University of California, Santa Cruz;
  Ph.D., University of California, Santa Cruz

COLOSI, DENISE (2007) ................. Mathematics
  B.A., M.A., University of California, San Diego

COMPOGINIS, LOUIS (1998) .............. Spanish
  B.A., University of California, Berkeley;
  M.A., California State University, Sacramento

CORTES, MARIA (2001) .............. Children's Center Teacher
  A.S. Cabrillo College, Child Development Teacher Permit

COWAN, KATHRYN (1990) ................. English
  B.A., St. Mary of the Plains;
  M.A., Ph.D., St. Louis University

CRANE, NICOLE (2006) .................... Biology (Botany)
  B.A., University of California, Santa Cruz;
  M.S., San Francisco State University;
  M.A., University of California, Santa Cruz

DELAGAR, ZARMINA (2001) ........ English as a Second Language
  B.A., Kabul University, Afghanistan;
  M.A., University of Northern Iowa, Cedar Falls

DAUPHIN, SALLY (1992) .................... Mathematics
  B.A., M.S., University of Southern California;
  M.S. Santa Clara University

DAVIDSON, MICHAEL (1990) ........ Mathematics
  B.S., Tarleton State University;
  M.S. Texas Christian University

DEAVER, DOUG (1999) ...................... Director of Facilities, Planning and Purchasing
  B.S., M.S., Purdue University

DeCOSSE, REGINA (1980) ...................... Dance
  B.F.A., University of Utah

DeSOTO, ALETHEA (2005) .................... Counselor (Puente & General)
  B.A., University of California, Los Angeles;
  M.A., San Jose State University.

DeSPERDER, LYNNE (1975) ....................... Psychology
  B.S., M.A., Michigan State University, E. Lansing

DOMINGUEZ, ELIZABETH (2000) ............ Counselor
  B.A., M.A. University of California, Santa Cruz

DOUGLASS, DAVID (1998) .................... Psychology
  B.A., San Jose State University;
  Ph.D., University of California, Santa Cruz

DOWLING, MARY KATHRYN "KATIE" (2005) .... Nurse Practitioner, Student Health Services
  B.S.N. San Jose State University
  M.S.N. San Jose State University

DURLAND, BARBARA (1987) .............. Computer Applications
  B.A., California State University, Fullerton

DURLAND, JAMES (1991) ....................... Music
  B.M., University of Arizona;
  M.M., University of Northern Colorado

EASTMAN, MARK (1985) ............... Mathematics
  B.A., Colorado College, Colorado Springs;
  M.A., University of Montana, Missoula;
  Ph.D., University of California, Santa Cruz

EDWARDS, ROBERT L. (1971) ............. Anthropology/Archaeological Technology
  A.A., San Francisco City College;
  B.A., San Francisco State University;
  M.A., University of California, Davis;
  Graduate Study, University of California, Davis and University of California, Santa Cruz

  B.A., Washington and Lee University, Virginia;
  M.F.A., Virginia Commonwealth University

ESCOTO, SESARIO R. (2001) ............ Dean of Student Services
  B.A. University of California, Berkeley;
  M.A., Stanford University;
  Administrator Credentials, California State University, Fullerton

ESPAÑA, CONSUELO (1989) ................ Spanish
  B.A., Fac. Filosofia y Letras U.N.A.M.;
  M.A., San Jose State University

FEINTERCH, LISA (1998) ..................... Mathematics
  A.A., Cabrillo College,
  B.S./M.A.T., University of California, Davis

FETTERMAN, NANCY (1989) .............. Mathematics
  B.S., M.A., California Polytechnic State University

FETTERMAN, TERENCE (1993) ............... Psychology
  B.A., M.A., San Jose State University

FIGUEROA, CARLOS (1999) ................... Physics
  B.A., University of Arizona;
  Graduate Study, University of California, Santa Cruz

FLORES-MUÑOZ, SHIRLEY (1985) ........ Women's Studies
  A.A., Sacramento City College;
  B.A., M.A., Ph.D., University of California, Santa Cruz
HARTZELL, CATHERINE "KATE" (1999) .................... Director, Student Health Services
A.S. Cabrillo College
B.A., University of California, Santa Cruz;
M.S.N., Samuel Merritt College

HARVELL, PAUL (2000) ......................... Economics
A.A., West Valley Community College;
B.S., University of Santa Clara;
M.A., University of Chicago

HASSAN, MO (1999) ......................... Business
B.A., University of Kentucky;
M.B.A., Eastern Kentucky University

HAYWARD, CRAIG (2007) .................. Director, Planning, Research & Knowledge Systems
B.A., Boston University
M.A. & Ph.D., University of California, Irvine

HILEY, JANET (2004) ....................... Independent Living Skills
B.S., University of Oregon;
M.S., San Jose State University

HILL, WILLIAM (1999) .................. Political Science
B.A., Boston College;
M.A., University of Notre Dame, Indiana;
Ph.D., University of Massachusetts/Amherst

HODGES, STEVE J. (1998) ................. Computer Science
B.A., M.A., University of California, Santa Cruz

HOFFMAN, ERIC (1987) .................. Children’s Center Teacher
B.A., University of California, Santa Cruz
B.S., Massachusetts Institute of Technology

HOISINGTON, SUSAN (2001) .................. Photography
B.F.A., San Francisco Art Institute;
M.F.A., San Jose State University

HOUGHTON, SHAWN (2000) ............. Health Science
B.S., University of California, Los Angeles;
M.S., San Francisco State University

HUNNICUTT, MASINAFANAA'E (2005) .... Assistant Director of Admissions & Records
B.A., Waikato University, New Zealand
M.A., Chapman University

HURST, KRIS (2007) .................... Fire Technology
B.S., University of California, Davis
M.S., California State University, Long Beach

INGEL, CALAIS (2000) ................ Adaptive Computing
B.A., University of California, Santa Cruz;
M.A., San Francisco State University

B.A., M.A., San Jose State University

JENSEN, CHARLOTTE (1989) ............. Medical Assistant
B.S., San Jose State University;
M.P.A., University of San Francisco

JOBE, EDDIE (2001) ................ Children’s Center Teacher
A.A. Cabrillo College;
B.A. University of California, Santa Cruz
JONKER, GENEFFA (2000) ................................. English

B.A., University of Calgary;
M.A., Simon Fraser University

KELLER, TOBIN (2005) ................................. Art Studio

B.F.A., California College of the Arts;
M.F.A., Mills College.

KENNY, LENORE (2000) ............................... Children's Center Teacher

B.A., University of California, Santa Cruz;
Ed.M., Harvard University

KILLEFERN, ONNIE (1987) ............................ Physical Education

B.A., Stanford University;
M.A., St. Mary's College

KILMER, RENÉE (2005) ............................... Vice President, Instruction

B.A., San Francisco State University;
M.A., California State University, Sacramento;
Ph.D., University of California, Riverside

KING, BRIAN (2004) ................................. Superintendent/President

B.A., University of Missouri at Columbia;
J.D., Duke University;
Ed.D., University of Arkansas

KING, DAVID (2006) ................................. Dance

B.A., University of California, Santa Cruz
M.A., University of California, Los Angeles

KRAUSE, JOSEPH (1992) ............................... Mathematics

B.A., M.A., University of California, Santa Cruz

KREIN, BRADLEY (1994) ............................... Mathematics

B.A., University of California, Los Angeles;
M.A., University of California, Berkeley

LADDON, MARCELLA (1999) ........................ Mathematics

B.A., University of California, Santa Cruz;
M.A., San Francisco State University;
Undergraduate Study, University of London

LARSON, MARY (1998) ............................... English as a Second Language

B.A., University of California, Irvine;
M.A., San Francisco State University

LARSON, STEVEN (1999) ............................. Computer Applications/ Business Technology

B.A., University of California, Irvine;
M.A., San Jose State University

LARTER, SALVETORIA (2000) ........................ Counselor

A.A., University of Maryland, Munich, Germany;
B.A., University of California, Santa Cruz;
M.A., San Jose State University

LEAL, JULIO (1995) ................................. English

B.A., M.A., California State University, Fresno

LEE, JENNIFER (2001) ............................... Psychology

B.A., University of California, Berkeley;
M.A., Ph.D., University of California, Davis

LEGAKIS, BRIAN (2005) ............................. Art History

B.A., University of California, Davis;
Ph.D., M.A., University of Chicago

LEONARD, RHEA (2001) ............................. Computer Science

B.S., San Jose State University

LEWIS, VICTORIA (2004) ............................. Director of Business Services

B.S., M.B.A. California State University at Fresno

LIM, DENISE (1994) ................................. Biology

B.S., University of California, Irvine;
M.A., University of Colorado, Boulder

LOBATO, ALFONSO (2001) ............................ Mathematics

B.A., Occidental College;
M.A., Northern Arizona University

LONNBLAD, SUSAN (1977) ............................ Bookstore Manager

B.A., University of Hawaii

LUCERO, ANNE (2001) ............................... Nursing

B.A., California State University, Chico;
Nursing Program, California State University, Dominguez Hills;
M.A., San Jose State University

MADSEN, CHRISTINE (2000) ........................ Nurses

B.S., San Diego State University;
M.S., San Jose State University

MAGEE, BELITA (1999) ............................... Counselor

B.A., California State University Long Beach;
M.A., San Jose State University

MANGIN, MICHAEL (1997) ............................ History

B.A., University of California, Berkeley;
M.A., Ph.D., University of California, San Diego;

MARCOCIA, GARY (1998) ............................. Engineering Technology

B.S., University of New York;
M.A., California State University, Long Beach

MARCOPULOS, ANTHONY (2000) ........................ Physical Education

B.A., California State University, Stanislaus;
M.A., University of the Pacific

MARSHALL, THOMAS (2000) .......................... English

B.A., University of California, San Diego;
M.A., San Diego State University;
Ph.D., University of California, Santa Cruz

MARTIN, TERA (2001) ............................... Learning Assistance Coordinator, Watsonville Center

B.A., Stanford University;
M.A., Ph.D., University of California at Santa Cruz

MARTINEZ, DAN (1979) ............................... Dean, Visual, Applied and Performing Arts Division

A.A., Cypress College;
B.A., M.F.A., California State University, Long Beach

MAYO, RACHEL (1989) ............................... Director, Watsonville Center

B.A., M.A., University of the Pacific;
Doctoral Study, University of Barcelona, Spain

McANDREWS, LISA (1989) ............................ Horticulture

B.A., Stanford University;
M.L.A., University of California, Berkeley

MCBRIE, KATHRYN (2005) ............................ Art–Studio

B.A., M.A San Francisco State University

McCAWLEY, LOREE (1980) .......................... Director, Personnel and Human Resources

B.A., M.P.A., San Jose State University
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<th>Name</th>
<th>Year</th>
<th>Title/Department</th>
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<td>Ribeiro, Joseph</td>
<td>1996</td>
<td>Theatre Arts/Drama</td>
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<td>Reynolds, David</td>
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<td>Putnam, Diane</td>
<td>1998</td>
<td>Writing Center</td>
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<td>Ponce, Francisco</td>
<td>1988</td>
<td>Counselor</td>
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<td>Pool, M. Teresa</td>
<td>2005</td>
<td>Sociology</td>
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<td>Pulido, Vera A.</td>
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<td>Shingai, Barbara</td>
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**Faculty and Administrators**

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<th>Name</th>
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<td>Patten, Cassandra</td>
<td>2000</td>
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<td>1981</td>
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<td>Shingai, Barbara</td>
<td>2000</td>
<td>Assistant Director of Human Resources</td>
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</table>
SIMCIK, LUKE (1997) ........................................ Mathematics
B.S., U.S. Air Force Academy;
M.S., Ph.D., University of California, Davis

SISKIN, H. JAY (1998) ................................. French
B.A., College of Wooster, Ohio;
M.A., Ph.D., Cornell University, New York

SLATER, SUSAN (1997) ............................. Culinary Arts and Hospitality Management
A.S., Cabrillo College;
M.S., Ph.D., University of California, Davis

SMALLEY, TOPSY (1988) ........................ Librarian
B.A., Pomona College;
M.L.S., University of California, Los Angeles;
M.A.L.S., SUNY, Plattsburgh;
Advanced Cert. in Librarianship, Catholic Univ. of America

SMELTZER, ANN (1993) .......................... Radiologic Technology
B.S., University of San Francisco

SMITH, CHARLES (2000) ........................ Anthropology
B.A., California State University, Hayward;
M.A., University of Arizona

SORIA, DEBORAH (1994) ......................... Director, Financial Aid
B.S., San Jose State University

SOURISSEAU, THOMAS (1975) ................... Biology
B.A., University of California, Berkeley;
P.G.C.E., University of London;
M.S., University of the Pacific;
Graduate Study, University of Hawaii;
D.C., Palmer College West

SPANGLER, NANCY (1995) ...................... Children’s Center Teacher
A.A., Santa Barbara City College
B.A. Pacific Oaks, Pasadena

SPENCER, Debra (2007) ......................... Learning Disability Specialist
B.A., University of California, Santa Cruz
M.A., San Jose State University

SQUARRITO, FRED (1975) ....................... Music
B.A., San Jose State University, Santa Cruz;
M.A., San Jose State University

STALEY, STEPHANIE (1994) ...................... Librarian
B.A., University of California, Santa Cruz;
M.L.S., San Jose State University

STAMOS, BILL (2000) ............................ Counselor
B.A., University of California, Santa Cruz;
M.S., San Jose State University

A.A., Chabot College;
B.S., M.S. California State University, Hayward;

STRUNK, MICHAEL (2005) ...................... Music
B.A., University of California, Santa Cruz;
M.A., San Jose State University

SULLIVAN, DAVID (1997) ...................... English
B.A., University of Chicago, Chicago
M.A., Ph.D., University of California, Irvine

SULLIVAN, MARY ELLEN (1991) ................ Articulation/Counseling
B.A., Boston State College;
M.A., San Jose State University

SUZUKI, SATOURU (1998) ....................... Chemistry
B.S., Grand Canyon University, Arizona;
Ph.D., Arizona State University

TAGAMI, JEFFREY (2005) ......................... English
B.A., University of California, Santa Cruz
M.A., San Francisco State University

TAN, YVES (2004) ................................. Biology
B.A., University of California, Berkeley;
Ph.D., University of Missouri, Columbia

TAPPERO, SUSAN (2005) ......................... Director, MESA Program
B.A., Humboldt State University;
M.A., Ph.D., University of California, Santa Cruz

TAURKE, ALEX (1995) ............................. Mathematics
B.S., M.A.T., University of California, Davis

TAYLOR, DENA (1998) ............................. Program Manager, Fast Track To Work
B.A., University of Oregon, Eugene;
M.S.W., Rutgers University

THOMAE, TERESA (1996) ......................... Director, Small Business Development Center
B.A., San Jose State University

THOMAS, JOSHUA (2006) ......................... Swimming, Diving, Water Polo and Physical Education
B.S., University of California, Davis
M.E., National University, LaJolla

TOMNITZ, PATRICIA (1982) ..................... Disabled Student Services Counselor
B.A., California State University, Northridge;
M.A., University of Santa Clara

TREVINO, DAVID (1984) ........................ Director, E.O.P.S.
A.A., Sacramento City College;
B.A., M.S., California State University, Sacramento

TUCKER, MERRITT (1999) ...................... Stroke and Acquired Disability Center
B.S., M.A., University of Maryland

VAN METER, FRANCINE (1998) ................ Teaching and Learning Center
A.A./A.S. Cabrillo College;
B.A., University of California, Santa Cruz;
M.A., San Jose State University

VIGLIENZONI, DAVID (1971) ..................... Mathematics
B.S., Santa Clara University;
M.A., University of California, Davis

VOGEL, CHRISTY (1996) ....................... Chemistry
B.S., Fort Lewis College, Colorado;
Ph.D., University of Southern California

WAGNER, ELISSA (1989) ........................ English
B.A., University of California, Santa Cruz;
M.A. San Jose State University

WALD MARCIE (1997) ............................ Counselor
M.S.W., Bryn Mawr College Graduate School of Social Work and Social Welfare
WECKLER, JAMES. (2005). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Dean, Business, English, Language Arts Division
B.A., Utah State University;
M.A., San Jose State University;
Ph.D., University of Utah

WHALEY, KANDA (2006) . . . . . . . . . . . . . . . . . Communications Studies
B.A., Humboldt State University
M.A., San Jose State University

WELCH, KATHLEEN S. (2000) . . . . . . . . . . . . . . . . . Dean, Health and Wellness, Physical Education and Athletics Division
B.S.N., University of Oregon Health Sciences Center;
M.S., University of Oregon;
Ph.D., University of California, Los Angeles

WEST, SHELLEY (1999) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Accountant, Business Services
B.S., San Jose State University;
M.B.A., San Jose State University

WILSON, KRISTIN (2005) . . . . . . . . . . . . . . . . . Anthropology
B.A., Georgia Southern University;
M.A., University of South Carolina;
Ph.D. (in progress), Georgia State University.

WINDER, SYLVIA (2000) . . . . . . . . . . . . . . . . . Librarian
B.A., University of California, Davis;
Graduate Study, University of the Pacific;
M.L.I.S., University of California, Berkeley

WITZIG, MICHEL (1985) . . . . . . . . . . . . . . . . . Adaptive Physical Education
B.A., University of California, Davis;
Graduate Study, San Jose State University
B.S., M.S., San Jose State University

WYLIE, JOANNE (1989) . . . . . . . . . . . . . . . . . Dental Hygiene
B.S., University of California, San Francisco;
M.A., San Francisco State University